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COMMUNITY TELECENTRES (TUNIS, 22-24 MARCH 1999)

Abstract:

The report contains highlights of the presentations on the different experiences with the implementation of telecentres, as well as the recommendation adopted by the seminar (pages 28 and 29).

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Introduction

This seminar is part of a series of Regional Seminars on Community Telecentres organized by the ITU Development Sector (BDT) in collaboration with other Agencies. The Seminar was hosted by the Tunisian Ministry of Communications and the Tunisian Internet Agency.

The objectives of these seminars are the following:

- **To promote awareness** of the role of telecentres in Universal Access and Rural Development;
- To identify, document and share information on telecentre activities in neighboring countries:
- To bring together telecentre practioners from different regions to share their experiences;
- To provide relevant training on the critical aspects of telecentre development so that participants can formulate project proposals when they return home
- To build an ongoing telecentre "knowledge network" to facilitate exchange of information; experiences, and establish best practices
- To be a feeder event for Global Knowledge II, the Global Knowledge Partnership conference to be held next year.

The Seminar was held in Tunis from March 22-24 and was preceded by a one-day visit to two sites of Public Internet Centers (PUBLINET) near Sousse, Tunisia. The programme of the seminar is listed in Annex 1 and the list of participants appears in Annex 2.

Highlights and Analyses of the Speakers Presentations and Papers

Opening Speeches

The seminar was opened by His Excellency **Mr. S.E. Ahmed Friaa**, the Minister of Communications of Tunisia. Mr. Friaa emphasized the importance of the public centres for telecommunications (telecentres) and their vital roles in supporting the comprehensive development, especially as the World is experiencing a technological revolution that has a tremendous effects on individuals and on nations. He added that Tunisia has made a significant progress in developing its communication infrastructure. Teledensity has increased from 3% in 1987, to 8.3% in 1998, and is expected to reach 10% by the end of 1999. Currently, about 99% of the telephone lines are digital and the rest will be replaced by digital lines by the end of 1999. In order to increase access to telephony, more than 3500 centres have been established. Late in 1998, a new project, <u>Publinet</u>, was launched with a mission to establish community telecentres that provide Internet access. To-date, 13 centres have been established in 12 states, with the number of planned telecentres expected to reach 100 in a few months. In addition, all institutes of higher education and research centres will have Internet access by the year 2001. In order to encourage public access to the Internet, the access tariff has been reduced to 0.03DT/min (daytime) and to 0.02DT/min (nighttime).

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Mr. Khalil Aburizik, ITU Regional Officer for Arab States, mentioned that based upon the decisions of the Second World Telecom Development conference of Valeta 98, ITU launched a special programme of ITU activities to help members in the innovative applications of modern technological development of telecommunications such as telelearning, telemedecine, tele-trading (electronic commerce), Internet and intranet, telecom and environmental etc. These applications play critical roles in socioeconomic development and can be implemented using the existing infrastructure without much additional investment. Special emphasis is given to rural development because poor access to telecommunication services has been one of the most important obstacles on restrain of development. The new technologies provide affordable solutions and reaching to any place anywhere in earth.

Mr. Aburisik explained the objectives of the seminar series on telecentres. He presented some of the key activities of the ITU Regional Office (located in Cairo) which include:

- Following-up on the results of this seminar and support all Arab telecom administrations efforts in planning, establishment and operating multi-purpose telecentres, especially in rural areas.
- Conducting a regional seminar for the Arab States on "Telecommunication and Environment" which will be conducted in Damascus 19-21 April 1999,
- Planning for Electronic Commerce Regional Seminar in mid 1999 with an objective to help those concerned in use of the telecom network by choosing the appropriate tools of software and hardware. Also training the necessary manpower for sustainable development,
- Planning for a study on established an Arab Observatory for the Region, which will assist in establishing regional databases, and promote the access and use of information in management and planning,
- Continuing to support members' efforts in the pilot project on telemedecine, telelearning, electronic commerce etc

Mr. Aburisik added that the regional office has established a site on the Internet in Arabic where concerned professionals can get easy access to a lot of useful information. Temporarily the site URL is: http://www.cairo.eun.eg/itu/.

Ms. Khedija Ghariani, Director General of the Tunisian Internet Agency (TIA), spoke briefly on TIA activities and the important application areas for the Internet including electronic trade and telemedicine.

Mr. Johan Ernberg, ITU/BDT Counselor, emphasized the need for identifying successful sustainable models of telecentres. He mentioned a special event, African Connection Rally (http://www.africanconnection.org/), which aims at promoting the concept of telecentres in African countries. The rally will be led by the South African minister of communication, and will start in Tunis by the end of March 1999.

Views of International Organizations and Development Agencies

ITU

Universal Access, by Mr. Johan Ernberg

Mr. Johan Ernberg, Counselor (ITU/BDT), pointed out the differences in the mission and the scope of activities between the public call offices (PCOs) and tele-kiosks on one side and multipurpose community telecentres on the other side (MCTs).

In rural areas, there is a growing need of modern information and communication technologies. A PCO and a tele-kiosk are an attractive business for franchisees, especially in densely populated areas, and it can have a positive impact on economic development. However, this requires expansion of the telecom infrastructure and establishing appropriate policies to stimulate growth in remote areas.

The focus on rural and remote areas is essential for establishing universal access because about 70-80% of the population lives in rural areas, and most of the natural resources are in rural areas. However, rural areas suffer from scarcity of jobs and from problems relating to urbanization. Thus, there is a need to develop models for provision of modern ICT to rural and remote areas as tools for development, which are sustainable and community owned.

A multipurpose community telecentre (MCT) is a shared facility for provision of public and private access to ICT services, as well as to user support and training. An MCT has a primary mission of community development (social, economic, and cultural). Services provided by an MCT include:

- Access to telephones, fax, ICT equipment
- Access to email, Internet, and voicemail.
- Secretarial services and business offices rental.
- Training in use of ICTs and user support.
- Access to government information, library services, distance education courses, health information, and telemedicine.
- Web page development and hosting.
- Production of radio and television programs.
- Rental of laptops and other ICT equipment to locals and to tourists.
- Repair of IT equipment.
- Carrying out community activities.

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The core user groups include: teachers, educators, health workers, local entrepreneurs and business people, community and government authorities, and NGOs.

MCTs can help improve public services in various sectors including education, healthcare, governmental services. In addition, MCTs can play a vital role in creating jobs and supporting new enterprises and SMMEs, and in promoting local cultures and empowering local and rural communities.

Mr. Ernberg suggested that the investment cost for an MCT is around USD 100K, and that it should aim at becoming self-sustainable in 3-5 years. Mr. Ernberg also presented a budget breakdown of a typical MCT.

One has to learn both from best practices as well as from failures. In the ITU's telecentre experience, there have been some failure cases (e.g. 2 telecentres in Latin America), where failure was attributed to decline in the commitment of partners and lack of collaboration among sectors.

At the end of his presentation, Mr. Ernberg raised several important questions concerning: the evaluation of the impact of MCTs on social, economic, and cultural development in rural areas; and on how to identify and evaluate best practices and sustainable MCT models. There is a need to carefully define a set of indicators to measure the impact of MCTs on development at the user level, the community level, the project level, the institutional level, the national level, and the international level.

Information on ITU's programs and activities in the domain of universal access are available from the web site at URL: http://www.itu.int/ITU-D-UniversalAccess/

Mr. Ernberg also reminded the delegates of the existence of an ITU project in this area, ECDC – the Electronic Commerce in Developing Countries project.

UNDP

Information Communication Technologies for Development, by Ms. Mona Afifi

Ms. Mona Afifi, Programme Advisor for Information Technologies for Development (UNDP), provided an overview of a UNDP Programme to establish technology access community centres (TACCs) in order to provide universal access to information and communication technologies (ICTs) in developing countries. Through this programme, the UNDP's Bureau for Development Policy (BDP) seeks to utilize ICTs in its pursuit for fighting poverty by developing knowledge.

The UNDP objectives are:

- To raise awareness, build vision and advise on policies to capture information and knowledge for development,
- To promote and build connectivity and the necessary infrastructure for access to information and development,
- To build the required human and social capacities,
- To reinforce participatory approaches and good governance and foster networking,
- To help create new livelihood and employment opportunities,

• To conduct pilot projects to demonstrate the feasibility, suitability and impact of ICTs for sustainable human development (SHD) through electronic community centres.

The programme is about people not technologies. It focuses on empowering communities and disadvantaged groups, and it achieves this objective through partnerships between the private sector, the public sector and civil society. In order to help such groups – who may not have direct individual access, and who will be unlikely to have such access in the short term - the technologies may have to be adapted to cope with literacy and language barriers. A special attention is given to training programs and content development, especially in local languages.

Among the pilot implementation of the TACCs project, three TACCs are being established in Sharkeya Governorate in Egypt (see Dr Sherif Hashem's presentation below).

In particular the projects will consider the use of ICTs to redress disadvantages experienced by women in rural and remote communities. Mr. Afifi argued that women are important, not only in their own right, but also as the group most usually responsible for "preparing" the next generation. They need to be enlightened and empowered if we are to maximize future human resources.

Partnerships involving UNDP often include other agencies – such as the ITU, the World Bank, IDRC, and UNESCO – in partnership with representatives of the developing country who use their own experiences and resources to provide "appropriate" solutions.

UNESCO

On the Implementation of MCT's in Arab States: UNESCO Views and Prospects by Dr. Tarek Shawki, presented by Dr. Ahmed Darwish

Dr. Ahmed Darwish, UNESCO consultant, presented the UNESCO's view of Multi-purpose Community Telecentres (MCTs). The MCTs concept provides:

- A sustainable, cost-effective, shared community facility, capable of servicing most of the requirements of the local population, especially in rural and remote areas.
- A community library supporting the goal of universal access to the emerging information society.
- A single access point enabling "last mile" links to communication technologies.

An MCT may act as a:

- Public Internet access point facilitating access to national/worldwide information banks and electronic libraries; access to information on government programs; and supporting the utilization of distance education, electronic commerce, and telemedicine.
- A facility for the generation and exchange of community-based information.
- A rural business centre providing Internet access and services like online banking, market information, and advertisement, for businesses, NGOs, farmers, and for professionals; as well as providing basic office administration services including telephones, faxes, typing, photocopy, etc.

A fundamental criterion for an MCT is the participation/co-operation of a wide range of local organizations in establishing the facility and in developing content and applications. This ensures the relevance of the MCT activities to the local community. Dr. Darwish stressed that the UNESCO does not impose ideas on local communities. On the contrary, the UNESCO tries to satisfy the requirements in the particular location and the needs of different community groups. An MCT is different from a "telekiosk" operated strictly as a commercial venture or serving mainly a single client group.

UNESCO involvement is usually limited to providing the "seed money," for which they will expect to be presented with proposals, which provide a clear business model and which ensure that there will be substantial community involvement. The potential for continuity of the scheme, and the expectation of a lack of national government regulation of/interference with the progress of the scheme, are also considered to be important. In this respect they feel that proposals should also make clear the expected levels of "interplay" between communities, agencies and national and local governments. Dr. Darwish added that the UNESCO collaborates with other international organizations who are key players in supporting universal access worldwide, including ITU, IDRC, and UNDP.

Based on the UNESCO experience in Mali, Tanzania, and Uganda, Dr. Darwish mentioned that the average cost of an MCT is between USD 500K and USD 850K.

At the end of his presentation, Dr. Darwish raised some important issues related to MCTs, including:

- Identification of the interplay between community groups, governmental agencies, NGOs, private sector and UN agencies in establishing MCTs
- Sustainability of MCTs, and coming up with successful business models for their operation
- Content sources and development, and control of content quality
- Arabization of content, and preserving local cultures

Experiences from the Arab Region

Tunisia

Publinet Project in Tunisia by Ms. Lamia Chaffai Sghaier

<u>And</u>

Applications of Telecentres: Electronic Commerce by Ms. Lamia Chaffai Sghaier

Ms. Lamia Chaffai Sghaier, Tunisian Internet Agency (TIA), indicated that Tunisia has introduced the Internet very early in the 1980s. In 1996, the TIA was created with a mission to provide Internet services in Tunisia. The number of Internet users in Tunisia has increased rapidly from 200 users in 1997, to more than 12000 users in March 1999, and is expected to reach more than 30000 by the end of 1999. Internet users include universities, schools, private enterprises, etc. The international Internet gateway is provided via an 8Mb link, which is increasing 2 Mb per

quarter. There are currently 7 points of presence (pop) in Tunisia. By the year 2000, every governorate is expected to have its own pop.

Ms. Sghaier presented an overview of the Publinet project, a project aims at establishing a network of 100 telecentres (publinets) across the nation by the end of 1999. The project was started in October 1998, and currently there are 13 publinets in Tunis, Nabeul, Kef, Zaghouan, Sousse, Sfax, Kasserine, Kairouan, Gafsa, Mednine, and Kebili.

Through this project, the pilot publinets initially receive 50% funding and low interest loans. Internet connectivity is established through multiple 64Kbps nodes established by private ISPs. Typical set up of a publinet include 5-10 PCs, a scanner, a photocopier (option), and a proxy server (option), in addition to the communication equipment.



PUBLINET Location Map

Publinet services include: access to the Internet and the world wide web, access to email, technical support for clients and users. Future application areas include: electronic commerce, distance education, and telemedicine.

During the subsequent discussions, it became apparent that the idea is also to promote domestic access to the Internet and to encourage the development of content as well as usage. The regulatory framework will be adapted to encourage this and the development of the "spirit" of an Information Society.

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In her second presentation, Ms. Sghaier elaborated on the Tunisian electronic commerce experience. The Tunisian Government established a national committee for electronic commerce 1997, operating under the ministry of communication and the ministry of commerce. The committee studied various aspects of electronic commerce, including the commercial aspects, the legislative aspects, the financial aspects, the security and the technological aspects. The committee prepared a national strategy document on electronic commerce (a national electronic commerce initiative) which has been adopted by the government. As a result, six pilot projects have been launched in March 1999. The pilot projects help investigate and realize various building blocks of electronic commerce including establishing a certificate authority, electronic signatures, etc. Electronic commerce offers enormous opportunities for Tunisian enterprises, because it facilitates access to new markets and enhance their competitive advantage.

As far as the publinets are concerned, electronic commerce is an application that can utilize the existing ICT infrastructure in: exchange information about trade opportunities and potential international partners, performing financial and commercial transactions over the Internet, and searching for employment opportunities and job offers.

Egypt

<u>Technology Access Community Centers in Egypt: A Mission for Community Empowerment, by</u> <u>Dr. Sherif Hashem</u>

Dr. Sherif Hashem, Manager of Egypt Information Highway Project at the Egyptian Cabinet Information and Decision Support Center (IDSC), started his presentation by pointing out the status quo of ICTs in Egypt. As many developing countries, Egypt has been striving to enhance its limited information and communication infrastructures. Teledensity is about 9 telephone lines per 100 inhabitants, which is low compared to the international levels in developed countries (Europe: 45, and the USA: 65). Internet was introduced in Egypt in 1993, and currently there are about 50 ISPs. The number of Internet users is around 120K, i.e. 0.25% of Egypt's population, which is also very low compared to Internet penetration rates of 20-30% in developed countries. In addition, the cost of dialup access is about USD 20 per month, which is high taking into consideration the average annual per capita income of about USD 1200. Furthermore, access costs is even 2-3 times higher outside of Cairo. As in many developing countries, there is a (relatively) substantial cost associated with upgrading the local information and communication infrastructure to meet the increasing demands of the emerging information society in Egypt.

Among the challenges that the information society in Egypt faces are:

- Limited access to ICTs, including access to computers, access to software, access to the Internet, and access to professional training and support.
- Language barrier, due to the limited knowledge of foreign languages among the population.
- Lack of local information content, especially in critical sectors including: commerce, trade, industry, small and medium size enterprises, healthcare, education, tourism, culture, public services, environment, and agriculture.
- Scarcity of technical skills and qualified professionals.

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Innovative short-cut solutions like the multipurpose community telecentres (MCTs) or technology access community centres (TACCs), can play vital roles in leveraging resources and providing wide public access to ICTs. In addition, MCTs or TACCs can also provide access to training, to human resource development, and to technical and professional expertise.

Dr. Hashem gave an overview of the UNDP pilot project to establish three TACCs in Egypt. A TACC offers a unique delivery mechanism of ICTs that can empower local communities in developing countries. A TACC is usually established in a central location in the community, and offers a variety of information and communication services including telephony, fax machines, copiers, personal computers, software libraries, and (of course) Internet access. A TACC organizes seminars, workshops, roadshows, specialized training, technical and technological expertise for professional as well as for the general public. The mission of the TACC is basically community empowerment and local capacity building by optimizing the utilization of ICT tools and techniques.

The key services of the TACCs are:

- Providing affordable public access to information services to empower community socioeconomic development. The TACCs are open to the general public, and have specialized programs that targets the needs of the local communities, including professionals, minority groups, women, children, students, etc. Internet services are provided on a walk-in basis as well as dial-up.
- Providing professional technical and technological support to professional users from various sectors, including: traders, physicians, engineers, teachers, professors, merchants, agricultural producers, industry people, SMEs, environmentalists, and healthcare professionals. This support starts with basic introduction and awareness of where and how ICT can help them in their line of business. Then, based on community needs assessment, the TACC organizes specialized training courses, seminars, workshops, and roadshows. Finally, the support can be leveraged up to the level of assisting professionals in reorganizing, reengineering, and managing their businesses to maximize their benefit for ICT. This feature is unique to the TACC and is seen to be crucial if we wish to have a strong impact on development of the local communities.
- Supporting and empowering the creation of local information content in various sectors, especially multilingual (Arabic/English/other languages) information content. This is needed to facilitate local and regional information exchange, and to encourage and promote the utilization of ICTs.

Community involvement is key to the success of the TACCs. Starting from the planning phase, key community leaders or leading organizations need to be involved in drafting the policies and operational guideline for the TACCs, and in planning major activities. Surveys of community needs, coupled with public awareness events and seminars, can be instrumental in assessing the community needs and requirements. They can help shape the TACC model, a model which has to be flexible and adjustable following the changes in community needs and priorities. Dr. Hashem stressed that there is no one "right model" for the TACCs, but there is indeed a key factors necessary for their success which is their community focus.

The TACC pilot project in Egypt started in 1998 with a mission to establish three TACCs in the Governorate of Sharkeya (about 70 KM northeast of Cairo). The project budget is about USD500K, excluding in-kind support, which covers the initial set up and the operational expenses

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for two years. The project is co-funded by the UNDP, under a special programme called Information Technology for Development, and by the United Nations Volunteer (UNV) programme. The Egyptian partners are the Governorate of Sharkeya, IDSC, and the Investors Association of the 10th of Ramadan City. Later in 1999, the Chamber of Commerce of Sharkeya and the Trade Point Division of the Ministry of Trade and Supplies joined the project. The diversity of project partnership reflects the interest of the Egyptian government, private sector and NGOs in the TACC concept:

- The UNDP has a long vested interest in community development and empowerment.
- The Governorate of Sharkeya believes in the potential impact of ICT on the socio-economic development of local communities.
- The IDSC, which is a governmental organization with a long track record of supporting the utilization of ICTs in Egypt and has assisted in establishing more than 1200 governmental information and decision support centres and units countrywide, as well as more than 30 specialized computer centres for kids and youth (21st Century Kids Cubs). IDSC sees in the TACC a viable delivery mechanism for providing wide public access to ICTs. (http://www.idsc.gov.eg/)
- The Investors Association of the 10th of Ramadan City, which serves more than 1200 manufacturing and production facilities and SMEs, wants to empower its community with modern ICTs to increase productivity and leverage their competitive edge.
- The Chamber of Commerce of Sharkeya has more than 30000 members who can benefit from ICTs in their business, especially in trading goods.
- The Ministry of Trade and supplies has a special interest in promoting Egyptian products, empowering exporters, and supporting electronic commerce.



The Governor of Sharkeya visiting one of the TACCs in Zagazig City

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The project is implemented by the Regional Information Technology and Software Engineering Center (RITSEC), which has a focus on promoting ICTs in Egypt and in the Arab region. (http://www.ritsec.com.eg/) The unique (mixed) partnership in establishing these TACCs will be key to their success, sustainability, and growth. (Details can be found at the URL: http://tacc.egnet.net/)

(A paper accompanying this presentation has been made available on the ITU website.)

Egypt Net, by Mr. Ossama Bassiouny

Ossama Bassiouny, General Director, EgyptNet, briefly outlined the efforts of the Egypt's Telecom in expanding and upgrading the telecommunication infrastructure and to reach a teledensity of about 9 telephone lines per 100 inhabitants. The Telecom has established several cross-country optical fiber networks and rings to facilitate digital data communication.

Palestine

Solar Community Center Installation, Al-Kaabneh Village, by Mr. Michael North

And

Telecentre Applications: Telemedicine by Mr. Michael North

Mr. Michael North, Greenstar Foundation, presented an overview of a solar community centre installation at Al-Kaabneh Village. Al-Kaabneh is a small Palestinian settlement on the West Bank, with a population of 2000 inhabitants. The village had no electricity, no telephones, and no running water. The city was selected, in a 1998 survey by the Palestinian Hydrology Council, as one of dozens of communities which are "off the grid" – no conventional electricity, and ideal for participation in renewable solar energy programs. Once electricity was flowing for the first time to the school, the first item connected was a Pentium-class multimedia computer, with camera, microphone, color printer, speakers, touch screen, and a small library of educational and work software. The teachers immediately began typing up a lesson plan. The system has a 10Base T network adapter that allows high speed wireless Internet connection, in order to facilitate videoconferencing and electronic commerce. A touchscreen from MicroTouch allows for controlled public access to the Web, and an ecommerce server will allow the village of Al-Kaabneh to establish its own site on the Web, to promote and sell local products on the international market. A telemedicine system will enable doctors anywhere in the world to work with doctors in Al-Kaabneh over a two-way video link on the Internet. Greenstar is developing the necessary business network to manage finance and exports in conjunction with the local Palestinian businessmen. (URL http://www.greenstar.org).

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Inside the Telecentre in Al-Kaabneh

Mr. North explained that Greenstar Foundation is sponsoring the demonstration, along with a coalition of peace-minded organizations:

- The Palestinian Energy Authority will manage the program and has concluded support agreements with Mr. Audi Nasir Al-Najada, president of the Al-Kaabneh Village Council.
- The United Nations Development Program (UNDP) has committed to working with the Palestinian Energy Authority to support these efforts and will fund health care and education projects such as this in remote areas.
- A-S-E Americas is providing a large array of photovoltaic cells to power the components with up to 20 kilowatt-hours of electricity per day, which include a solar-powered ultraviolet water purifier, a vaccine cooler, and a digital cellular antenna for access to data networks.
- Global Health Initiatives is providing a public health database, and support for a future demonstration of telemedicine.

In his second presentation on telemedicine, Mr. North added that telecentres are about moving "smart electrons", and that physicians in developed countries and in the more advantaged areas should volunteer their time to assist other physicians in serving patients in developing countries and in the less advantaged communities.

(A paper accompanying this presentation has been made available on the ITU website.)

Morocco

The Points of Community Access in The Action Plan of SEPTI, by Ms. Najat Rochdi

Ms. Najat Rochdi, Counselor of the Ministry of Information Technologies, stressed on the importance of establishing adequate telecommunication infrastructure in the Arab region, in order to support its development. Ms. Rochdi suggested that Morocco already has the necessary communication infrastructure with a current capacity of 1,600,000 telephone lines. Although

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teledensity is 9% in urban areas and 0.7% in rural areas, about that 82% of the rural communities have access points nearby. This provision had been particularly helped by the Publiphone/Teleboutique initiative. The Internet was first introduced in Morocco in 1995, and currently there are 75 ISPs and 60,000 users.

Training and human resource development in the area of information technology by public and private institutions and government modernization's had helped to develop the necessary Information technologies and infrastructure.

Ms. Rochdi outlined the role of points of access and community telecentres to support the move to an Information Society – helping the Internet and the Information Society to get closer to the individual citizen in a democratic, regionalized way. Technology issues are not seen as a stumbling block, it is more important to concentrate effort on getting the necessary strategies and sustainable partnerships in place to help in the move towards the goal of an informed and competent "information society"

Telecentre Models in other Regions

United Kingdom

<u>UK Telecentre Experience – A review of the 1998 UK Telecottage Survey, by Mr. Bill Murray,</u> Small World Connections (SWC) Ltd.

A survey of Telecottages and Telecentres in the UK was first carried out by SWC and TCA in 1994. The results of that survey were published in the Feb/March 1995 edition of the Teleworker magazine. In 1998, SWC & the TCA surveyed 50 UK & Irish Telecentres and Telecottages (teleworking centres), of which 44 Centers are in rural areas, and 6 in cities and large towns.

The survey revealed that twice as many Centers are now making a profit than was the case in 1994 but the number of loss-making Centers remains about the same - at around a third. There has been an increased emphasis on training as a major activity for Centers and the provision of Internet related services (eg. Internet training and Internet access) has also become an important focus and is expected to increase in importance. There has been a slight increase in the proportion of Centers providing sub-contracted work for local teleworkers.

Over half of the Centers responding to the survey have been established since the results of the last survey were originally published in early 1995. It has been estimated that there are currently around 200 Telecottages/Telecentres in the UK & Ireland and - although exact figures have been impossible to obtain - it is felt that numbers have increased by approximately a half since the last survey.

Almost 30% of the responding Centers are privately owned – an small increase from 1994 – and a similar percentage are funded primarily by central or local government (a small decrease). The remaining 40% have a mixture of public/voluntary/co-operative structures. Of the 15 private Centers all but one started life as privately funded. In fact very few Centers have changed their ownership structure – with only one moving from public funded to private funding and two changing to charitable status from public sector ownership.

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The provision of grants, equipment and other funds obviously played a large part in the initial start-up of almost three quarters of the Centers. Funding included assistance from the European Commission (especially ERDF & various EC Programme Grants), TECs, Local & Central Government, RDC, SRB and companies (e.g. BT, Barclays, Apple). Privately funded Centers relied on the personal resources of the owners, bank loans, subsidies from existing businesses and "borrowed" equipment. Just over one third of the Centers now rely entirely on commercial operations. Some of the other Centers have a predominately commercial focus but rely (to varying degrees) on training grants, local authority support or European Union funded initiatives to balance the books. However, almost 40% of the Centers rely almost entirely on some form of ongoing public funding for their continued existence. The median level of grant received per annum (excluding those who claimed not to receive any grants) came to £29,750. The median income level was £25,000 per annum – although one Center claimed to have an income of £500,000 per annum. A "representative" total turnover figure could therefore be expected to be around £60,000 per annum. Although most telecentres starts with funding, a successful telecentre develops a core business niche and receives support from various agencies.

Services provided to users include email access, website development and hosting, commercial information services, computer consultancy, computer equipment hire, as well as business support services and translation. The top ten services are: general computer training, access to equipment, phototyping, Internet access, Internet training, word processing, desktop publishing, fax facilities, and data entry.

Telework centre models include: multipurpose telecentres, community "drop in" telecentres, dedicated teleworking centres, and "specialist" centres (call centres, Internet service facility, virtual tele-agencies, disadvantaged groups telecentres). It would appear that telecottages are not used primarily as a "regular workplace" for large numbers of people. Only 3 Centers said that more than 10 people (other than staff) used the Center as a regular place of work, whilst over two thirds of the Centers had no users of this type at all. However, the picture was quite different with regard to "drop-in" type users. Whilst 7 Centers had no occasional or regular/frequent "drop-in" type users, the vast majority did have a large number of both regular and occasional users of this type – with over 20% of centres claiming in excess of 50 of both types of users. The average number per Center came to around 30 frequent users and an additional 30 occasional users.

Success factors for telecentres are: setting clear objectives, drawing up a business plan, identifying market niches and type of services, effective marketing, effective management and control, acquiring professional support, benefiting from similar experiences, and persistence. **Failure factors** include: inability to update services, failure to adapt marketing strategy, sudden departure of manager, inability to generate income after funding period, and insufficient start-up time.

The major lessons learnt are the importance of sharing experiences, developing workable solutions, establishing partnerships, accessing sufficient funding, and continuous learning.

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<u>The Global Electronic Marketplace and the Ecommerce Explosion, by Mr. Bill Murray, Small World Connections:</u>

Mr. Murray gave an overview of the current state of the ecommerce environment based on his involvement as the UK Representative on the G8 Global Marketplace for SMEs project.

Mr. Murray gave an outline of the situation in Europe and the wider world (especially the USA) with respect to the numbers involved with both the Internet and with ecommerce. The presentation highlighted both the scale of the growth of the Internet and ecommerce – and the disparity between figures/estimates on this growth from the different research organizations.

Mr. Murray also gave details of the G8 Global Marketplace for SMEs project and outlined some of the steps which the G8 Group and individual governments are taking to prepare their businesses and populations for the new Information Society.

Amongst the variety of figures quoted concerning the size of the e-commerce market were the following:

- Andersen Consulting puts the current amount of Internet commerce at £6 billion, growing to £210 billion £300 billion by 2002,
- IDC says the Net economy as a whole will be worth £570 billion by 2002 bigger than Greece's current GDP. Now it says the total figure stands at £126 billion worldwide.
- Yet other IDC figures put Internet commerce at £1.7 billion in Western Europe, growing to £3.3 billion by 2002, against a global figure of £19 billion this year and £250 billion by 2002.
- The World Trade Organization puts the 2000 figure at £180 billion.
- In terms of statistics of Americans who use the Web, Nielsen Media research reported in August that "79 million Americans, a third of the population are 'Netizens' a figure up 36% year on year. Greater than 50% of the 16-34 US population regularly use the Web and 20 million Americans have bought an item online.
- IDC also reports a gap between the US and Europe. "Most (84%) of the £19 billion worth of Web commerce in 1998 is from the US, 9% from Europe and by 2002 the total will be £255 billion, with 63% from the US and only 13% from Europe. Of the 27 million people Gartner says have bought off the Net, only 19% were Europeans."
- One thing that is certain is that ecommerce was first established in the US because of very cheap local call rates. However to surf the Web in Europe is much more expensive. The recent OECD conference in Canada reported that "surfing on the Web for six hours would cost three times more in Sweden than in Canada and six times more in Austria."
- According to a recent European report (by Schema, 1998) 2.6 million (32%) companies or 4.1 million business sites are currently use Internet or Intranet services. This will rise to 10.6 million by companies by 2003 (62%). Teleworkers will grow from 379,000 to 4.4 million. Ecommerce currently only 3-4% of company revenues will expand to around 25%.

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- In 1998, 500,000 business sites (250,000 companies) operated ecommerce but by 2003 that will be 8 million sites (3 million companies).
- In 1997, European businesses clocked up 51 billion minutes of Internet traffic, by 2003 it will be 290 billion minutes.
- Data traffic will be almost five times that of voice traffic by 2003. Companies will be carrying out a quarter of their business electronically.
- NUA predicts the numbers will rise to around 150 million on-line during 1998 with an outside chance of 200 million users having access to the Internet by the end of 1998.
- First time Internet shoppers swamped the websites in the USA at Christmas. Revenues were expected to be double last year but grew by 230% (some sites collapsed under the heavy traffic even Amazon.com had to email customers that it would not meet the Christmas delivery deadlines). Jupiter Communications estimated that poor performance over Christmas forced 40% of online consumers to leave the site.
- KPMG survey showed that companies found more profit in business-to-business online trading rather than business-to-consumer. IDC study forecast that by 2002 \$425 billion of goods will be sold across the Net and that 79% of this would be business-to-business (\$32 billion in 1998, with business-to-business 66%)
- Gartner Group forecasted in 1998 that business-to-consumer traffic will be \$67 billion by 2000 (similar to business-to-business trade). Web users stood at 97 million in 1998 and will be 320 million of them by 2002. Web commerce was worth £32 billion in 1998 and will be £425 by 2002. Business-to-business trade 66% in 1998 will rise to 78% by 2002. (IDC also see a decline in the relative importance of business-to-consumer trade).

Mr. Murray cited several examples of SMEs and new startup companies which have emerged or have substantial grown because of their utilization of the Internet and electronic commerce techniques. He also cited examples of companies, who because of their lack of utilization of the Internet and ecommerce, lost their market share to competitors who utilized such technologies.

Mr. Murray outlined the UK government approach to promote ecommerce. The government set a goal of tripling the number of UK small businesses which are wired up to the digital marketplace, from about 350,000 at the end of 1997 to 1 million by 2002. By March 2001, 90% by volume of routine procurement of goods by central government will be conducted electronically. By 2002, 25% of government services will be accessible electronically.

The Information Society Initiative (ISI) is to develop a network of 80 Local Support Centers, giving smaller businesses access to independent advice on the use of digital technologies. TradeUK (http://www.tradeuk.com) offers an electronic shop window on the World Wide Web free.

Relevant URL: European Initiative: http://ispo.ece.be/ecommerce

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Styal Prison Telecentre Project by Ms. Cathy Murray, Small World Connections

Ms. Murray gave an overview of the Styal Prison Telecentre Project which she ran in the UK. Besides giving details on what has happened in this innovative and award winning project (e.g. numbers involved, equipment used, training schemes, qualifications obtained, work contracts carried out). Ms. Murray tried to place the project in the context of how ICT in general and MCTs in particular can help women to overcome some of the barriers that they face in certain societies.

The Styal Telecentre is a workshop set in a prison which provides training and work experience for twenty women inmates. The telecentre takes in contracts from outside companies and from prison departments. Main areas of work are data entry, compiling and checking mailing lists, wordprocessing, and desktop publishing.

As a prisoner who has "broken the rules" - self confidence and self-esteem are very low. Of those leaving prison every year, about 100,000 people - 90% have no job to go to. Rough estimates show that they comprise 2 - 3% of the average monthly outflow to unemployment.

A recent Probation Service study found that there has been a 40% rise in the number of women imprisoned in the last 2 years taking the population over 2000. Eighty percent of those jailed were unemployed or on benefit and many had children.

The training programme and resulting paid work in the telecentre helped to overcome these barriers as follows:

- Lack of marketable skills & Skills obsolescence
 - * Trained the women into Windows 95, Microsoft Works & Word, E-mail, Use of networks, Desk Top Publishing, Project Management, Teamwork.
 - * Wrote targeted CVs which emphasized their skills
- Employers perceptions & Lack of previous "stable" employment record
 - * They can demonstrate skills to prospective employers through the work in their portfolios
 - * They can demonstrate valuable work experience gained in prison and list companies that they did work for.
 - * In future it is hoped that when the women work on an individual basis for companies, they will get to know that company who may provide a reference as to their reliability, skills and hard work. This reference will in turn make the process of finding a job substantially easier.
 - * Potential link to working for other telecentres provides a focus for a job
- Low self-esteem
 - * Improved self-esteem women feel they are carrying out productive paid work and they have marketable skills

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- * Improves their value in the eyes of their families. This improved self-esteem and family approval is invaluable in gaining the confidence to address offending behavior.
- Temptation to make money illegally on release
 - * The teleworking skills will help enable the prisoners with children to care for their children when they are released <u>and earn</u> a living. This is an improvement in the situation of a prisoner going back onto benefits, or back into crime because they cannot find a job which fits in with their child care responsibilities.

Having started with a pilot project of 10 women in a temporary "factory unit" the project now employs 20 women in a purpose-built Telecentre equipped with state-of-the-art systems. A range of private sector clients pay for the services provided by the staff at the Prison Telecentre – who also carry out some work for the Prison Services and for local charities.

Plan for the Styal telecentre is to expand into a new purpose built premises, and develop telebusiness and market research with accredited training. Ms. Murray mentioned that they are interested in transferring this experience to other prisons in the UK and in Europe.

Western Australia

Overview of the Western Australia Telecentre Network Model by Ms. Gay Short

Ms. Short began her presentation with the screening of a promotional video which has been made to raise awareness of telecentres and what they can offer to local communities.

The Western Australian Telecentre model is very different from the Eastern Australian model. In Eastern Australia the Telecentres had been established with initial funding but were expected to be self-financing within two years. Consequently of the 70 established only 11 still exist.

Western Australia provides a very interesting example of a viable model for telecentres, which with limited financial support can give an important contribution to community development. Western Australia is probably the least populated area in a high-income country. Although it is the largest state in Australia, it has only a population of 1.7M., with two thirds living around the capital. More than half of the rest live in regional centres. Some 200 communities spread over a vast area service the rest of the population. It is in these communities that the WA Telecentre network directs its services.

The network today comprises 60 operational centres with an additional nine having been received and awaiting funding. A further 30 communities have indicated their desire to join the network. In total, it is planned to establish 100 telecentres. The centres are located in towns of 200-600 persons and usually at least 50 km from each other.

Telecentres can receive public funding from the State Department of Commerce and Trade. New centres can receive funding for equipment (including telephone connection costs) up to AU\$30,000. Existing centres can be supported with up to AU\$20,000 per year for salary assistance. An additional amount of AU\$20,000 to upgrade equipment is available after the telecentre has operated successfully for three years.

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It is necessary to have some support from Local Government or the community to become eligible for support. For instance, it is expected that the telecentre building is provided rent free/maintenance free by the community. Additional funds for specific projects can be applied for if the projects can demonstrate regional development or employment opportunities flowing from the proposed initiative.

The telecentres operate between 10-hours to 20-hours (per week) with paid staff, otherwise, they may be accessed by community members using access cards. All telecentres have:

- the latest computing equipment and allied services;
- one-way video, two-way audio for teaching, professional development, information and conference purposes; and
- Internet access at a local call cost.

Although the telecentres may receive state funds, they are community owned and managed. It is also important that they generate their own income. The programs run at the telecentres include:

- Labor Market Programs: the WA network program has the responsibility to allow access to training and access to information on employment opportunities, placement services, and the related government initiatives.
- Education Programs: including formal and informal education programs. The telecentres act as examination centres, and enable distance education. After the establishment of the network, the percentage of female enrollment in distance education programs went up from 20% to 80%, indicating the increased access to education programs among various groups in rural and remote areas.
- Community Newspapers: fifty percent of the telecentres now produce the community newspaper for their town.
- Desktop Publishing: a variety of desktop publishing is undertaken at each site.

Each telecentre is managed by its own committee, which is responsible for employment and supervision of staff, financial matter, and programs to be established and run for the Center. The centres are not for profit bodies, with the most common sources of income being:

- Membership fees
- Tele-based training or fee-paying courses e.g. in IT skills
- Secretarial and other office and business support services
- Hire of services and equipment
- Fee from establishing agencies
- Internet access and email-services
- Reception services, phone-answering and email receipt for SMEs
- Provision of professional rooms

• Labor market programs

One of the most profitable services has been the provision of e-mail services to back-packers, who wants to send or receive email.

Rural telecentres need to be in a main street location and are expected to provide a range of social services to the local community – including training. They have a beneficial impact on tourism, library services, local ISP development and provision of specific "missing" services such as ticket sales.

In future, a wide range of services are under consideration including Call centres and Cyber cafes. It is expected that sustainability will come from placement in multi-purpose community centre developments – incorporating local church, training centre and other non-profit making social activities and local authority service provision (e.g. schools, health centres, courts, leisure facilities).

The project has received several awards in recognition of its impact on local communities. The **key success factors** are:

- Establishing a "**community owned and managed concept**," with the local community forming a telecentre management committee, employing their own coordinator, and overlooking the operation of the telecentre.
- A rigorous process was followed: survey needs, application, business plan, incorporation, constitution, resource and performance agreement, and memorandum of understanding being required.
- Partial government financial support through grants.
- Centers strive for a main street location.
- All telecentres are networked via Satellite and the Internet.
- Continuous monitoring, follow up, and regular visits of the telecentres by senior officers.
- Support from the concerned partners and communities.
- Establishing credibility which has led to state, national, and World recognition.

(A paper accompanying this presentation has been made available on the ITU website.)

Senegal

Multipurpose Community Centers: Opportunities for Senegal by Dr. Mactar Seck

Dr. Mactar Seck, Executive Secretary of the Supreme Council for Industry, highlighted the experience of establishing telecentres in Senegal. A special telecentres initiative was started in 1992, with a focus on facilitating public access to telephony. An acceptable measure of a maximum of 5 km from the nearest telephone facility was set forth. Services provided by telecentres include telephony, faxes, and photocopying. The demand for information services, and not the technology, has been the driving force for the development of the telecentres.

Dr. Seck raised important questions that need to be addressed when establishing telecentres:

- Who are the real beneficiaries for telecentres in developing countries?
- What is the useful information content for different groups of the community?

- Which sectors (agriculture, commerce, education, healthcare, etc.) will benefit the most from telecentres?
- What is the most suitable organizational structure, services, and business models for the telecentres?
- What is the role of the private sector in the implementation of telecentres in rural and remote areas?
- Which modern technologies are needed in the telecentres?

Telecentres provide a wide variety of additional services including access to the Internet, access to governmental information, and access to community information, in addition to facilitating videoconferencing, distance education, telemedicine, trade, and electronic commerce.

Establishing telecentres often requires partnerships between governmental organizations, Telecom operators, private sector, and community groups.

To-date, more than 6796 telecentres have been established in Senegal. The telecentres employed more than 10,000 employees from 1992-1998. These telecentres have had a significant impact on improving access to telecommunication, and in supporting the role of women in the development of the communities.

Dr. Seck concluded his presentation by stressing on the role of telecentres in empowering communities and supporting their needs.

South Africa

Telecentre Implementation: Policy issues and institutional roles, by Mr. Daniel Espitia

Mr. Daniel Espitia, Universal Service Agency, presented the Agency's vision which is to be the world leader in promoting universal access and universal service to telecommunications and information services as an empowerment vehicle for disadvantaged communities. The Agency promotes affordable universal access and universal service in information and communication technologies for disadvantaged communities in South Africa, to facilitate development, empowerment and economic growth.

Mr. Espitia explained that universal access covers not only access to telephones, but access to various ICTs tools at large. Universal access is the bridge to universal services. He added that universal access is still a major goal as far as access to ICTs, where telecentres play a major role.

Mr. Espitia compared the supply-driven and the demand-driven models for telecentres. In the supply-driven model, the focus is on the technology including the physical infrastructure (communication backbone, the networks, the telecentre hardware), the software infrastructure (computer systems and applications), and the skilled professionals. While in the demand-driven model the focus is on the social and economic needs of the people and the communities (infostructure: electronic commerce, tele-education, tele-medicine, tele-health, government information systems, electronic banking, etc.).

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Mr. Espitia suggested that in order to increase short-term universal access, one needs to make best use of the existing infrastructure and facilities. Long-term strategy must include establishing national programs for telecentres value added services, for training, and for infrastructure development.

Mr. Espitia stressed on the importance of the diversification of telecentres depending on the needs of the communities and the available resources. In South Africa, there are:

- Tele-Shops: mobile cellular co: Vodacom.
- Mini-telecentres: National franchise from private sector concept owned by CSIR-Universal Service Agency.
- Standard telecentres implemented by the private sector.
- Tele-hub: USA investment in concept and prototype development with return expected in specific telecentre delivery.
- Multipurpose community centres: established by donor funding channels through the Universal Service Agency.
- Rural Telephone Co-operatives (RTCs): which assist communities, private companies, and telecentres, with implementation and training.

Other African experience

Worldspace - Plans for Telecentres, by Ms. Safia Safwat and Ms. Roxanna Dunette

This presentation looked at the issue of MCTs with respect to the opportunities provided by the use of new Digital Radio technologies in these emerging markets.

An overview of the technology involved began with the observation that there are more telephones in London than there are in the whole of Africa – and that this situation was unlikely to change in the short term. Digital Radio provided an inexpensive, simple, flexible and mobile alternative communications medium.

Ms. Safwat_Director Afrispace, felt that Worldspace had the potential to change the lives of millions of people by providing them with relevant useful information in a timely manner (e.g. government information, health information, agricultural advice, weather warnings). Although the information would be predominantly one-way it was felt that systems could be suitably tailored/specified in advance to match specific audiences.

Telecentres could be set up based in part on this approach – with different levels of equipment tailored for different audiences. In particular Ms. Dunette felt that the proposed Worldspace Bus (equipped with kiosks and radio PCs) would provide a useful model of mobile telecentres. The Bus is being built in time for display at the Telecom 99 event in Geneva.

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Potential Roles of Government Agencies, Telecom Operators, and Development Agencies

The Seminar revealed that different models for successful multipurpose community telecentres (MCTs), and different formulas for their sustainability and empowerment. However, in almost all cases:

- Support from government agencies has been a critical success factor;
- Funding from development agencies was essential to get started; and
- Communication infrastructure availability and technical support from local telecom operators are instrumental.

In the Arab Region, with a population around 250 M, there are currently slightly more than one million Internet users (i.e. Internet utilization rate less than 1 in 200), which is quite low compared to the World average of 1 in 40. This may be attributed to several factors including: inadequate access to ICT tools (computers, software, networks, etc.); language barrier; lack of Arabic and local information content; and scarcity of technical skills. The presentations and discussions during the Seminar clearly point out that MCTs can help treat the above listed factors, thus empowering local communities and assisting in realizing the Arab region's Information Society.

Currently, there are only a few Arab countries that have started establishing MCTs (Egypt, Tunisia, and Palestine) and a few more are well on their way (Morocco and Jordan). However, there is a lot that needs to be done in order to speed up the adoption of MCTs and to accelerate their growth and development in the Arab Region. The analysis of the cases presented in this seminar suggests the following potential roles for government agencies, telecom operators, and development agencies in this process.

Roles of Government Agencies

- Establish national initiatives to support and empower MCTs. (similar to the Tunisian or the Australian models). Special incentive packages need to be offered in order to encourage the creation of MCTs, including: funding support, access to low-interest (or interest-free) loans, reduced telecommunication and Internet access fees, tax breaks or tax-exempt status. In the Egyptian experience, a government organization, IDSC, acted as a project facilitator and provided access to its Internet gateway at a substantially reduced rate.
- Establish national initiatives to expand the national and regional ICT bases. This includes continuous communication infrastructure upgrades, professional training and human resource development, and development of local information content, especially in Arabic, in key sectors (business, commerce, trade, education, culture, tourism, healthcare, medicine, environment, legislation, etc.). Some Arab countries have started national initiatives for ecommerce, telemedicine, distance education, etc. (Egypt, Tunisia, and Saudi Arabia). However, there is a lot that needs to be done in order to establish comprehensive information society initiatives in the Arab region.
- Establish national programs for promoting ICTs and MCTs and for raising awareness among the general public and among professionals in key sectors. These programs may include workshops, seminars, roadshows, and should pay special attention to recognizing and promoting best practices.

• Establish special programs targeting women, minority groups, people with disabilities, prisoners, and the less advantaged groups, in order to reduce the gaps between the have's and the have-not's within a given country. (The Australian experience illustrates the impact of MCTs on women enrollment in distance education programs, while the experience of the Styal Prison Telecentre Project in the UK proved to be very effective in preparing prisoners to become good productive citizens.).

Roles of Telecom Operators

- Facilitate access to ICTs at <u>acceptable rates</u>, especially in rural and remote areas. This may require partial government subsidies and/or utilizing different technology solutions (including VSAT, Satellite, etc.). The Palestinian experience even involved the use of innovative technologies for electric power generation and the use of VSAT satellite communication.
- Provide technical support to assist MCTs in planning, utilizing, maintaining, and updating their equipment. This includes assisting and training the MCT operators, and assisting in trouble shooting.

The experiences from Tunisia, Senegal, and South Africa reveal the importance of the role played by the local telecom operator in the success of MCTs.

Roles of Development Agencies

- Raise awareness of the potential impact of ICTs and MCTs among communities, countries, and regional bodies. Many international development organizations are actively pursuing awareness efforts: for example the ITU organizes this MCTs Seminar Series with support from the UNESCO and the UNDP. However, with the current levels of utilization of ICTs in the Arab region, comprehensive efforts at various levels (top-down and bottom-up) are urgently needed.
- Recognize and promote best practices, and disseminate information on worst practices to provide guidance and early warnings to telecentre operators. Establishing special forums or special interest group for networking and sharing experiences and best practices among telecentre operators is indispensable (See the Australian experience).
- Provide initial funding support for MCTs. For example, the UNDP is supporting the TACCs and MCTs in Egypt and South Africa. The IDRC, UNESCO, and ITU have supported telecentres in several African countries. Such support encourages local governments to provide matching funds or in-kind support, thus accelerating the spread of ICTs and MCTs.
- Assist in training and human resource development programs. This support includes funding as well as assistance in the accessing the required technical skills and professional expertise.
- Advise governments and top-level decision-makers on policy and strategy issues relating to adoption and utilization of ICTs and MCTs. This includes lobbying, agenda setting, and assistance in drafting and executing national and regional initiatives.

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All the experiences and models presented in this Seminar emphasized the importance of partnerships between local communities, government agencies, telecom operators, and development agencies, to ensure the success, sustainability, and growth of MCTs.

Workshop Highlights

Multipurpose Community Telecentres Workshop

TUNIS - 24th March 1999

Objectives

A one day workshop was run at the Tunis Multipurpose Community Telecentres Seminar in order to help participants better understand the benefits/pitfalls from establishing local, regional, national and pan-national MCT initiatives. The workshop explored the processes involved in developing and managing such projects.

The workshop was intended to help participants to:

- Identify local needs, choosing services and applications
- Identify local and national partners
- Plan co-ordination activities with national associations and government agencies
- Prepare business plans
- Identify funding opportunities
- Prepare initiatives/plans which will
- Build capacity
- Develop local content
- Get community buy-in

The workshop combined a review of the presentations/discussions of the previous two days of the seminar with group/workshop discussions of future strategies/plans and potential projects using *a set of workshop materials and exercises* developed especially for the ITU by Small World Connections Ltd. These materials were available at the Workshop in French and English and were subsequently translated into Spanish. (All three language versions are available on the ITU website.

The workshop was organized in a structured fashion combining short presentations by Bill Murray of Small World Connections with (small) group discussions The subjects covered during the workshop included:

- Review of previous two days of Conference and explanation of agenda
- Discussion of Telecentre aims and objectives and how to resolve conflicts between different Telecentre aims/objectives

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- Issues to consider when planning to set up a Telecentre
- Planning & forecasting
- Services to offer & systems to use
- Management & control
- Working with local, national & international agencies
- The role of government in the development of telecentres
- Planning of co-ordination with National Associations and Government Agencies
- legislative issues
- cultural issues
- other infrastructure issues
- Identification of potential partners and funding opportunities
- Developing a business plan and/or project proposal

The workshop was attended by around 40 delegates and provided some lively discussions of the issues under consideration. As this was the first time that a structured workshop approach had been used at the MCT seminars a workshop evaluation form was distributed at the end of the workshop.

Recommendations

Mr. Guy Girardet (ITU/BDT) summarized the key issues and discussions that took place during the Seminar. Mr. Girardet then presented the recommendations as follows:

The participants in the seminar:

Recognizing

- " the potential of modern Information and Communication Technologies (ICT) as tools for development;
- "the importance of providing access to ICT also to people in rural and isolated areas and in deprived urban areas;
- "that Multipurpose Community Telecentres (MCT) could offer means to provide Universal Access to ICT for people in such areas;

- " that there are many different models of telecentres which all contribute to the goal of Universal Access;
- "the need for adequate telecommunication infrastructure, as well as for relevant content and services in order to sustain the investments required to provide access to ICT and for this to contribute significantly to social, economic and cultural development;
- "the need for cross-sectoral collaboration in the development of adequate infrastructure and "infostructure".

Aware of

"the various MCT pilot projects implemented by ITU and other development agencies with their local, national and international partners, as well as by individual countries, with a view to develop sustainable models for improving Universal Access to ICT which can be replicated by the private sector.

Recommend that,

Governments of Arab States:

- Set up high level working groups comprising representatives of all occupational sectors concerned and including the private sector to develop a strategy for Universal Access to ICT at the national level:
- Implement MCT pilot project in their countries, with a view to test and develop sustainable models, adapted to their conditions;
- Collaborate with other governments and relevant national institutions and in the region development of content in Arabic and of suitable user-friendly interface;
- Encourage the development of information and learning resources relevant to the needs in rural areas and deprived urban areas and the sharing of such resources;
- Concerned international development agencies, NGOs and suppliers and vendors of ICT equipment and services support MCT;
- Support pilot projects in the Arab Region;
- Share their experience from pilot projects in other regions and resources and tools developed these with the Arab States.

Call upon

Regional organizations, in particular the Arab League, to support the implementation of pilots and the development of relevant information content in Arabic.

Annex 1

PROGRAMME

		I
Sunday, 21	09h00-	Field Trip
March	17h00	Visit to Public Internet Center (PUBLINET) near
		Sousse
Monday, 22	10h00-	Opening Ceremony
March	11h00	S.E. M. Ahmed Friaa, Minister of
		Communications, Tunisia
		Khedija Ghariani, Président Directeur
		Général
		Agence Tunisienne d'Internet
		Khalil Aburisik, ITU Regional Officer for
		Arab States
		 Johan Ernberg, Counselor ITU/BDT
		Johan Emoorg, Counselor II C/BB I
Session 1	11h00-	Telecentres in the Arab States
Session 1	12h00	Lamia Chaffai, Tunisian Internet Agency
	121100	Lanna Charlat, Tumsian Internet rigorey
Lunch		
Session 2	14h00-	Telecentres in the Arab States
	15h30	UNDP Technology Access Community Centers
		(TACCs) in Egypt
		 Mona Afifi, Programme Specialist,
		Information Technology for Development at
		UNDP
		 Sherif Hashem, Manager, Egypt Information
		Highway Project, IDSC/RITSEC, Egypt
Coffee Break		

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Session 3	15h45- 17h30	 Telecentres in Arab States (cont.) Michael North, Case study of the Greenstar telecentres installation at Al Kaabneh, on the West Bank Najat Rochdi, Conseiller du Ministre en Technologies de l'Information: Telecentres In Morocco. Panel Discussion Moderator: Osman Lotfy El-Sayed, Professor of Telecommunications, Cairo University
Tuesday, 23 March		
Session 4	09h00- 10h30	 Telecentre Models in other Regions Mactar Seck, Advisor, Ministry of Communications: Telecentres in Senegal Gay Short, Project Leader, WA Telecentre Support Unit: Western Australian Telecentre Network Bill Muray, Small World Communications: UK Telecottages Panel Discussion Moderator: Daniel Espita, Townsend and Associates
Coffee Break		
Session 5	10h45- 12h30	 Community Access: Johan Ernberg, Counselor, ITU/BDT Ahmed Darwish, UNESCO Representative Safia Safwat, Roxanna Dunette, WorldSpace Cathy Murray, Small World Communications Panel Discussion
Lunch		
Session 6	14h00- 15h30	Applications: Electronic Commerce

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Coffee		
Session 7	15h45-	Policy Issues: Institutional Roles of National
	17h30	Associations and Governmental Agencies
		 Daniel Espitia, Townsend and Associates:
		Role of Universal Service Agency in
		Telecentre development in South Africa
		 Gay Short, Project Director, WA Telecentre
		Support Unit, Australia
		Panel Discussion
Wednesday, 24	09h00-	Full Day Workshop
March	16h00	
	16h00	Closing Ceremony, Mr Guy Girardet, ITU/BDT.

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