

The Role of Telecentres in Bridging the Digital Divide

Presentation to Development Symposium for
Regulators, ITU, Geneva,
21 November 2000

Guy Girardet
Special Development Advisor, CTO
g.girardet@cto.int



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Overview

- ❑ CTO's role in DFID's "bridging the digital divide" programme.
- ❑ The need for public-access strategies in developing countries.
- ❑ Impact of different types of telecentres on poor populations.
- ❑ Policy recommendations.





DFID's Digital Divide Programme

- ❑ Funded by British Government through the Department for International Development (DFID).
- ❑ CTO's role is "to strengthen local capacity in developing countries, to address the policy and regulatory issues that are key to increasing private investment in, and equitable access to, Information Communication Technologies" .
- ❑ Policies should have a specific poverty focus, i.e. identify ways that (ICTs) can improve the quality of life for poor people.



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Need for Public Access Strategies

- ❑ The cost of individual Internet access is too high for the majority of users in developing countries. In Peru, cost of monthly access is US\$ 40 a month (20 hours).
- ❑ Represents 10% of national monthly average salary and does not include the investment in hardware.
- ❑ Cost of the same number of hours in a Cabina is just 4% of monthly income.
- ❑ Identifying sustainable public access models strategies is therefore of critical importance for regulators and policy makers.



Public Access Case Studies

- ❑ Telecentres made their debut in Sweden in the 1980s and are a relatively recent phenomenon in the development landscape.
- ❑ There are a wide variety of telecentre models that have been championed by different individuals and organisations.
- ❑ Despite high expectations and a number of government-sponsored projects, there is need for more in depth evaluation



Literature Review

- ❑ Presentation draws widely on a recent report, “Telecentres for Socio-Economic Development” produced by IADB, ITU and FAO. The report.
- ❑ documents findings of case studies carried out in Brazil, Chile, El Salvador, Guatemala, Panama and Peru earlier this year.
- ❑ examines Telecentre models from 3 different criteria:
 - ❑ Impact;
 - ❑ Replicability.
 - ❑ Sustainability.



Objectives of Telecentres With Pro-poor Policies

- For a target group of low-income populations the Telecentre should provide:
 - Access to new technologies;
 - Access to applications and services valued by the target group;
 - Services that yield concrete economic, social or cultural benefits, I.e. Improve living conditions.
- Telecentre should also be:
 - Sustainable.
 - Replicable.



Challenges for Rural Telecentres

- ❑ Different set of challenges to Urban Telecentres:
- ❑ Lack of telecommunication infrastructure.
- ❑ Often requires long-distance call to connect to ISP.
- ❑ Computers often require rural generators, voltage stabilizers, and shock protection.
- ❑ High costs for equipment maintenance
- ❑ Difficult to find local technicians.
- ❑ Earning capacity of rural population is low.
- ❑ High rates of non-literate users.
- ❑ Users often have little formal education and little familiarity with information technology.



Potential Impact of Telecentre Services

Lower cost;
Restricted number
of services

Dependent on
market forces

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>Commercial</i>	Medium	Excellent	Excellent
<i>Franchise</i>	V. Low	?	?
<i>NGOS</i>	Excellent	Good	Good
<i>Schools</i>	Good	Good	Medium
<i>Universities</i>	Low	Low	Medium
<i>Municipal</i>	Medium	Medium	Low
<i>Community Telecentre</i>	Good/Excellent	Low	Low

Greater cost;
Wide variety of
services

Likely to need some
(initial) funding

Commercial Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>Commercial</i>	Medium	Excellent	Excellent

- ❑ Privately operated and managed. Provide affordable Internet access, particularly in urban areas. Create employment; receive no government subsidy.
- ❑ Examples Cabinas Públicas - Peru, (Telecentres Prives, Senegal).
- ❑ Cabinas in Peru originally started by the RCP, the first ISP. The number of Cabinas has increased dramatically in just over a year from 200 to 1,000 and can now be found in most towns. Peru has one of the highest concentration of Public Access to the Internet.
- ❑ Competition has driven down prices from US\$ 1.40 to US\$.70 an hour.



Cabina pública in Lima

Cortesía de Ana María Fernández-Maldonado



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

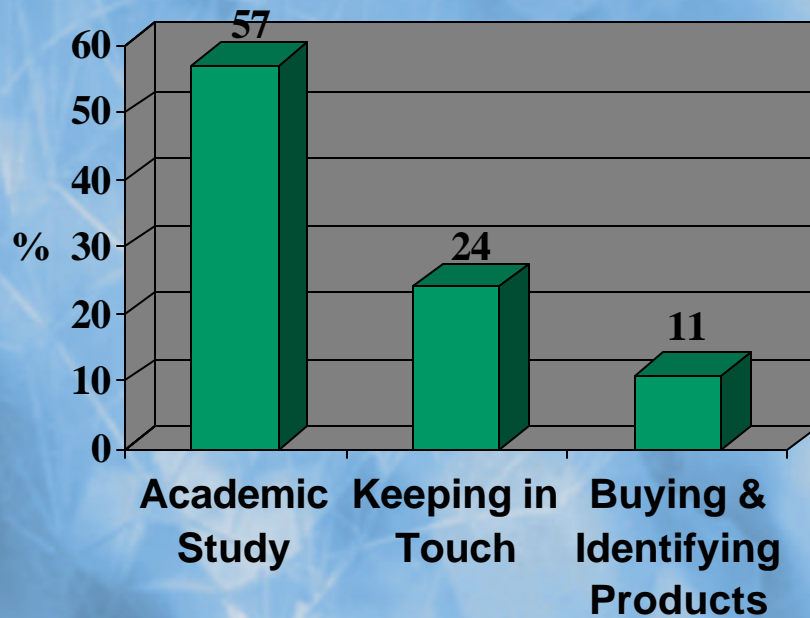
Profile of Users: Peru's Cabinas

- Average age of users = 23.
Peruvian population average = 36.
- 19% of users are professionals.
- Educational level of users much higher than that of Peruvian population as a whole. 42% at university level.
- 99% cited Spanish as mother tongue.
33% indicated they could read English.
- 33% of users had incomes below poverty line (US\$ 39 urban, US\$ 23 rural).
- Although Cabinas serve poor users, they have little impact on large numbers of people with little or no formal schooling.

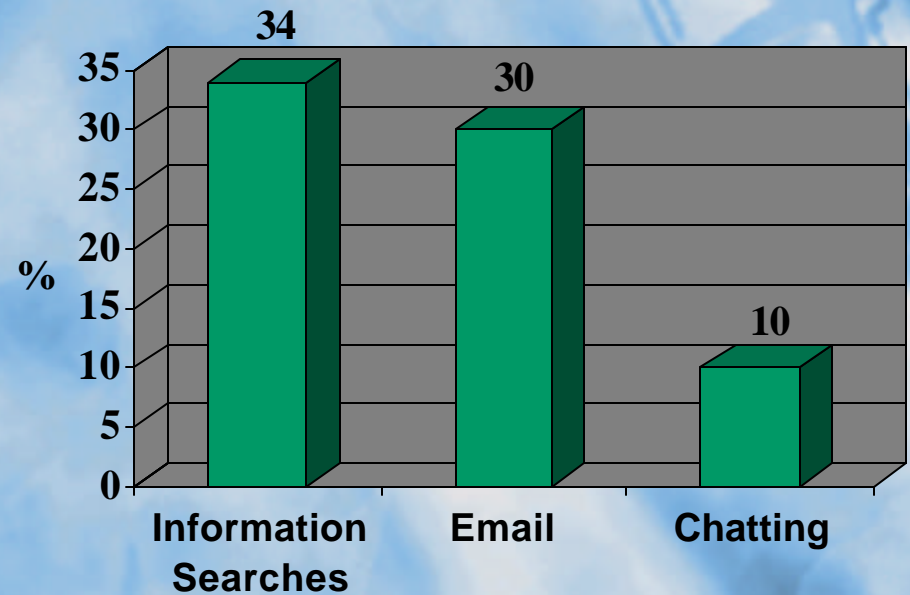


Types of Uses: Cabinas

Main Purpose of Use



Main Applications Used



Goals of Users: Cabinas

Students	Do better in schools or studies (80%) *	Upgrade computer skills (66%) *	Find a partner, make new friends, maintain social relationships (53%)	Keep better informed (49%) *
Non-Students	Improve work skills (62%) *	Improve computer skills (56%) *	Keep better informed (51%) *	Do better in school or studies (48%) *



Commercial Telecentres: Senegal

- ❑ 7,000+ private telecentres.
- ❑ Created 10,000 jobs between 1992 and 1998.
- ❑ In 1997 generated US\$ 19 million (13% of Sonatel revenues).
- ❑ Contributed 0.4% to Senegal's GDP (1997).
- ❑ Majority offer only phone, fax, + photocopying; Some now offering e-mail.
- ❑ Sonatel provides 40% discount on tariffs; assists with new services.
- ❑ Operate in a monopoly environment.

Source: Mactar Seck



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Franchised Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>Franchise</i>	Very low	?	?

- ❑ Franchisee must pay fees and adhere to strict quality standards in order to use a certain trademark. Examples include: Red Cientificana Peruana (RCP).
- ❑ Franchise model not widely developed in Peru, considered to offer few advantages.
- ❑ Franchises criticized as too centralized. Local managers have insufficient flexibility to adapt services to the needs of the local community.



NGO Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
NGO	Excellent	Good	Good

- ❑ Have good record of targeting poor and marginalized communities.
- ❑ Subsidize cost of services in the start-up phase but are aware of sustainability issues.
- ❑ Provide a wide variety of services. Focus on training - have a strong impact on target population.



Committee to Democratize Information Technology (CDI)

- ❑ CDI has innovative programmes targeting under-served populations.
- ❑ In Brazil CDI trains more than 25,000 young students per year.
- ❑ CDI helped establish Brazil's first computer school in an indigenous village.
- ❑ In Sapukai, where there is no electricity, Guarani indians learn in their own language on computers that are powered by a generator.



Source: CDI Web Site



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

School Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>School</i>	Good	Good	Medium

- ❑ In Peru, universities are encouraged to install telecentres that serve the general public. These are closely linked to instructional programmes.
- ❑ Promise greater impact on target group and have potential for replicability.
- ❑ May have negative impact on nearby telecentres run by entrepreneurs.
- ❑ Schools often ill-equipped to charge public for admission.



School Telecentres

The tiny village of El Limón, lies high in the arid mountains of the Ocoa region of the Dominican Republic.

The villagers have hooked up a donated computer to the Internet, using a digital radio and an antenna relay system that connects to the nearest phone line, ten miles away. Now their school - which has no library and is situated in a village with neither telephones nor indoor plumbing - has a connection to the World Wide Web.



Source: CNN Virtual Villages



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Municipal Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>Municipal</i>	Medium	Medium	Low

- ❑ Provide access and training to marginalized communities.
- ❑ Partially sponsored by local government.
- ❑ Provide access to government services.
- ❑ Examples: Amic@s Paraguay, Western Australia.



Children at the opening of an Amic@s in Paraguay



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Municipal/Community Telecentres W. Australia Telecentre Network

- ❑ 75 community telecentres established in rural areas. Goal to have 100 this year.
- ❑ High degree of government support. Funding for each centre includes \$30,000 for start-up equipment and \$20,000 towards salary for a part-time telecentre co-ordinator (Australian dollars).
- ❑ Emphasis on training. Video-conferencing facilities being installed in all telecentres.
- ❑ Increasingly being used to provide improved access to a wide range of government and private services.
- ❑ Govt sponsored Telecentre Network Support Unit located in Ministry of Commerce.



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Municipal: Post Offices

- ❑ Provide great potential for public access.
- ❑ A number of announcements have been made, but very little evaluation.
- ❑ Ghana Post Office tie-up with Africa Online.
- ❑ South African Post Office committed to deploying public Internet terminals (PITs) in every Post Office.
- ❑ MCIT in Egypt plans to provide Internet access in all Post Offices, offering a wide range of government e-services.
- ❑ Malaysian Government has announced initiative to offer Internet access through the Malaysia Postal Network.
- ❑ More information please !



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Multipurpose Community Telecentres

Type of Telecentre	Impact on Poor	Replicability	Sustainability
<i>MCT</i>	Good/Excellent	Low	Low

- ❑ Pilot projects implemented by ITU and UNESCO.
- ❑ Aim to offer maximum number of services to act as platform for rural development.
- ❑ Public services include: distance education, tele-medicine, training.
- ❑ Private services: photocopying, individual Internet training and access.



Multipurpose Community Telcentres

- ❑ ITU/UNESCO/IDRC community telecentres established in rural areas of Mali, Nepal, Suriname and Uganda.
- ❑ High impact on rural populations.
- ❑ Relatively high investment costs. Long term sustainability?
- ❑ Competent local champion is a critical to success.



Nakaseke, MCT,
Uganda



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Serving the Needs of the Community

- Important to have content and services oriented to requirements of community.
- Here a non-literate client goes to a Grameen Telecentre to dictate a letter to be e-mailed to his son.
- People in Bangladesh are discovering that sending e-mail is much less expensive than making a phone call.



Muhammad Yunus
Founder Grameen Bank

Source: CNN Virtual Villages



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Recommendations (1)

(from ITU/IADB/FAO Report)

1. Telecentres should be part of an integral strategy of economic and rural development.
2. Government support should be sustainable.
3. Commercial telecentres are an excellent vehicle for providing access to the Internet under certain conditions. They are, however, unlikely to spread to rural areas.
4. To target rural and peri-urban areas, governments should adopt policies that foster competition (both in access and ISP markets) and sponsor development of university, school, NGO and municipal types of telecentres.



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

Recommendations (2)

(from ITU/IADB/FAO Report)

5. Telecentres receiving subsidies should :
 - serve poor populations;
 - maintain commitment to sustainability;
 - be led by qualified “champions”.
6. Privatization policies must include provision for investment in rural telecom infrastructures.
7. Training and content are paramount and should be part of all telecentre objectives.
8. Municipal telecentres should be part of a government strategy for decentralization and strengthening of local government.



Future Work

- ❑ Conduct further case studies in Africa and Asia.
- ❑ Gain better understanding of potential of other Information Communication Technologies used in conjunction with Internet: (e.g. community radio).
- ❑ Publicize findings at the CTO/ITU Public Access Seminar planned for middle of next year (2001).



Thank you !

- IADB report (spanish) is available from:
<http://www.iadb.org/regions/itdev/telecentros/index.htm>.



(C) COMMONWEALTH TELECOMMUNICATIONS ORGANISATION