Differently-Abled Persons with ICT Ability – Inclusion and Empowerment in Sri Lankan Rural Areas via Telecentres

Authors: Peter Mozelius¹
          Niranjan Megammaana²

Affiliation:
  1) Stockholm University, Sweden
  2) Shilpa Sayura Project, Sri Lanka

Email:
  1) mozelius@dsv.su.se
  2) niranjan.meegammaama@gmail.com

Abstract: ICT facilities are unevenly spread in many countries and Sri Lanka definitely has its internal digital divide. The fast growth of ICT services in urban areas are not matched on the countryside. Telecentres in the Sri Lankan Nenasala network have frequently been used to support poor and isolated regions in a try to bridge the digital divide. This article is based on observations and interviews with the staff at the Koslanda Nenasala during two visits to the telecentre. The aim of this case study is to examine and discuss if a telecentre managed and operated by disabled persons could serve as a hub for inclusion and empowerment of other disabled people in a rural region. Findings shows that disabled persons can organize and run a telecentre in an innovative way with results above average. The Koslanda Nenasala has contributed to empowerment and career opportunities for disabled people in the region. The Koslanda organization and service model has also been replicated at five other telecentres in the Sri Lankan Hill Country. Other problems identified for a telecentre run and used by disabled persons are the costs for qualified staff and transportations. Telecentres in general are depending on Internet access and this dependency is even stronger for a telecentre managed and used by disabled people.

Keywords: ICT4D, Inclusion, Telecentres, Nenasala, Education for all, Sri Lanka
1. Introduction and Aim

1.1 ICT in Sri Lanka
The history of computers and computer science in Sri Lanka started in 1967 when the first mainframe computer was brought to the island and programming and soon programming and computer science became an integrated part of mathematics at university level. (MP3-Wikramanayake, 2011) A broader acquisition of computer and communication technologies in Sri Lanka started with the opening up of the economy in the late 1970s and its integration into globalization process.

In the 1980s the use of computers and IT still was, as in most other countries around the world, a privilege of the elite. Towards the end of the decade private as well as public institutions started to computerize their systems. The pioneers were airlines, travel trade and financial services and some public institutions. Currently, the industry, and private and public institutions use computers in their daily work and major information centres and libraries are also automated. (Hansson et al, 2010)

These infrastructural developments made it possible for Sri Lanka to enter the information super highway, but access to computers and the Internet was still in 2010 not for everyone. In Sri Lanka facilities are mainly limited to Colombo and its environs in the western province and major provincial towns like as Kandy, Galle, and Batticaloa. In rural areas, where over 75% of the population lives, the infrastructures are not at all as good as in urban regions. (Hansson et al, 2010) In the current attempts to bridge the internal digital divide the installation of telecentres in poor rural areas could be seen as an important initiative. (Gaiani et al, 2009 b)

1.2 Disability and Inclusion in Asia and Sri Lanka
Like other Asian countries human potential is often being wasted across rural areas where unemployment is high, especially among women and people with disabilities. Sri Lanka has a relatively good infrastructure but for impaired persons it is not easy to commute or migrate for work. (Srikanthan and Harrigan P, 2009) Estimations tells us that roughly 10% of population is disabled by physical, mental or sensory impairment in all countries but the types of disability can have regional variations (Hansson et al, 2009). Aid projects and ICT initiatives with specialized support for disabled people can have a positive impact both when it comes to individual empowerment and the support of the local community (Mozelius et al, 2008).

In Sri Lanka disabled students at universities can get assistants and ICT tools have been developed for things like speech synthesis in English as well as in Sinhala and Tamil. But when it comes to transportation services in rural areas Sri Lanka is poor and with less support than their neighbor India. (MP3-Koslanda, 2011)
1.3 Aim
The aim of this study is to analyze and discuss the activities of at Lankan telecom centres and their possibility to support inclusion in the island’s rural regions.

2. The Nenasala Network and the Koslanda Telecentre

The telecentre movement started in the 1990s when the Internet became an integral part of the daily communication and in many countries. Some people in developed countries were able to buy their own computers and Internet connections, but many others depended on some kind of shared access. (Colle and Roman, 2003) In a traditional narrow definition of a telecentre is that: “… a telecentre is a place that offers the public connectivity with computers and networks”, but a broader more modern definition might be that a telecentre is: “a public place where people can get a variety of communication services and whose aim is to benefit the community”. Because of its implicitly narrow focus the term telecentre might arguably be out-dated and a term like knowledge centres or information centres could be more suitable. (Gaiani et al, 2009 a)

In Sri Lanka the Sinhala term Nenasala is used which translated to English would mean center for knowledge (Meegammana et al, 2010). Telecentres are by design targeted to bridge the digital divide and support inclusion, but the lack of it has often been the overarching theme in contemporary discussions on development. There exists an unanimous agreement within governments, NGOs and international organizations, corporate that no development is true development unless all forms of divides are addressed with equal access to development. (Gaiani et al, 2009 b)

In Sri Lanka the telecentre network started when the eSri Lanka project was initiated by the Information and Communications Technology Association (ICTA) in 2004 in collaboration with the international IT company Intel. In the early pilot 20 telecom centres were started with World Bank funding under the name of Vishwa Ghana Kendra (VGK). (Gaiani et al, 2009 a) Later the VGK became a national programme with an aim of constructing 1000 telecom centres with a geographically spread covering the islands rural regions. So far (27/02/2011), around 600 Nenasala are set up by the Sri Lankan government. Nenasala Telecentres can be set up in several models but the with the initial ICTA funding this is mainly done with 2 to 4 computers, a printer and broadband internet access. (Meegammana et al, 2010)

In 2005 a telecentre, owned as well as operated by a disabled family, was started at Koslanda in a Tamil speaking region of the Sri Lankan Hill Country. At that time ICT facilities were very rare in Koslanda and its neighborhood . Initially the telecentre got the same initial support as all other Nenasala in Sri Lanka but later they have got additional funding from aid organizations in other countries. (MP3-Koslanda, 2011) The organization of the Koslanda Nenasala is a family project where Srikanthan mainly takes care of administration, project planning and software support meanwhile his brother Chandrakanthan handles hardware issues. Operators and teachers are all female and, as often in rural Sri Lanka,
women are found to be more reliable workers than men (Srikanthan and Harrigan P, 2009).

At the Koslanda telecentre the major parts of the clients are local people living in Koslanda and its surroundings in the Hill Country but there are international clients as well. A partnership has been established with the NLingua Services, a New Delhi based company. Voice transcriptions and other translation services have been done for an international target group by Koslanda residents. Audio files in Tamil, Sinhala and English languages can be transcribed in all directions. (Wattegama, 2009)

3. Methodology

3.1 Observations
Observations were conducted during 2 visits to the Koslanda telecentre in July 2010 and February 2011. During these visits computers and software have been used, tested and discussed by telecentre visitors, staff and the authors.

3.2 Interviews
Interview could be defined as purposeful discussions between two or more people (Kahn and Cannell, 1957). Different kind of interviews can help you to collect and select relevant data for your research questions and analyses. Interviews can be anything from strictly formalized interviews using standardized questionnaires to informal and unstructured conversations. The interviews conducted in this research should be classified as semi-structured interviews (Scribd Inc, 2010).

3.3 MP3 Recorded Interviews
Research studies on how people understand and interpret information and concepts, are often based on interviews and conversation methods. Academic research has a tradition of deep interviews as one of the most valuable research tools. During many years interviews have been captured by the interviewers taking notes during the conversations. In journalism interviews have been recorded since long ago, but the academical default standard has been written text and shorthand in the collection of research data. The use modern digital audio technology in the capturing of research data there are new opportunities for an improved storing and analysis of voices and dialogues. (Mozelius, and Hansson, 2009)

In this paper 5 of the most important informants have been captured in 4 MP3-files. At an IT symposium in August 2008, an interview was made with one of the main architects of the Sri Lankan Nenasala network (Wijayawardhana, 2008). During the second visit to the Koslanda telecentre in February 2011 a conversation with the owner and one of his female employees was recorded (MP3-Koslanda, 2011). Since the female telecentre teacher was a bit reluctant to the recording her name will be omitted in this article. An important principle in action research and case studies is to respecting people’s integrity within an agreed framework of ethics (Cohen et al, 2007).
4. Findings and Discussions

During the last years the staff at the Koslanda telecentre has developed a wide variety of computer based training in the field of IT. They provide a lot of shorter courses in areas like basic computer science, hardware, office packages and web design. Teaching sessions are given in Tamil, Sinhala and English. One of the female operators, who originally is from Kandy, has Sinhala as her mother tongue and has been working in aid projects in Ethiopia and Kenya with English as the main language (MP3-Koslanda, 2011). Her Tamil skills are good as well and she gives multi-lingual teaching sessions in mixed groups. Language skills could be seen as a speciality at this telecentre and translations of audio files have been one of their services where they have had international clients.

The Koslanda Nenasala also gives special services for other disabled persons in the neighborhood including vocational training. In a region where transportations facilities for people with special needs have been neglected these specialized ICT services have been appreciated. On Srikantnhan’s initiative an association for disabled Sri Lankan persons has been started and ICT services and software has been provided. Since transportations are a problem online communication and email correspondence have been important tools. Telecentres in general are depending on Internet access and in the Koslanda case the dependency is even stronger. During periods without Internet connectivity the number of visitors has decreased and in the association for disabled persons the communication between members has suffered. The telecentre have got additional support from external aid organizations in other countries and with German funding a tuk-tuk, a modern motorized version of the traditional three wheel rickshaw, has been purchased. This has very useful vehicle for visits to other telecentres and transportation of members in the association for disabled persons.

As all other telecentres in the Nenasala network Koslanda got an initial support for Internet provision with full compensation during the first year and then the subsidization has phased out during five years. Broadband by satellite has mainly been the alternative but in rural areas the access subscription has been costly and the download speeds are still in 2011, often at an unacceptable level. Measurements done by the Sri Lankan Telecommunication Regulatory Commission (TRCSL) shows transmission values as low as 100 Kb/s in rural regions. (Daily News, 03/03/2011).

But Koslanda has now a situation that is better than average when it comes to Internet access since broadband by fiber are under construction and ready to use in 2011. The broadband fiber connection to Koslanda’s rich neighbor Wellawaya will be extended and fast reliable Internet access will be provided for a reasonable cost. This is a service that all telecentres in the region are longing for. At the Haldemullu telecentre, not many
kilometers away, no reliable Internet connectivity is available for the moment and the rate of visitors have dropped. (MP3-Haldemulla, 2011).

Another problem that Koslanda shares with other telecentres is the cost for hiring a skilled staff. This telecentre currently has a staff with not only knowledge in the field of ICT. Chandrakanthan is experienced in the area of hardware and the teachers have excellent language skills. But their salaries are definitely lower than what is the case in an urban Internet café or IT learning centre.

With funding from various international aid organizations the Koslanda telecentre is better equipped than the average telecentre but still some important tools for disabled persons are missing. One example is software for speech synthesis in local languages to support the visually impaired. However, the Koslanda telecentre model has been successful and already replicated at 5 other telecentres in the Sri Lankan Hill Country.

Capacity building and empowerment has not only been for the telecentre visitors but also for the people that owns at runs the telecentre. A good example is Srikanthan himself, recently married and a candidate in the local elections. The most important issue for Srikanthan in politics is how to provide improved job opportunities for the inhabitants in Koslanda.

5. Conclusion

Transportations are a huge problem for many differently-abled persons and in rural regions in developing countries solutions are sometimes hard to find. In Sri Lanka the support for transportations for disabled persons are even worse than
in neighbouring countries like India. The purchase of a motorized vehicle has been valuable for the telecentre and opened up opportunities for an expansion. Several telecentres in the region could now run and coordinated from Koslanda.

Like many other telecentres, schools and learning centres in rural areas the access to Internet is crucial. One factor that will improve the future activities at the telecentre is the introduction of fast fibre based Internet in Koslanda. Most practical problems are the same for disabled persons and others but there also exists special needs that should be given additional facilitation.

Koslanda telecentre has got more support than the average telecentre in the Nenasala network but the fact that a telecentre owned and managed by a disabled family must be seen as a success story. Support is important for the differently-abled but their own commitment is the key to success. Out of around 600 started Nenasalas in Sri Lanka about 50% could be classified as in order and sustainable and the Koslanda Nenasala is definitely one of them.

Disabled people currently have worse opportunities in rural regions than in urban Sri Lanka. Telecentres could empower their visitors as well as their owners and support differently-abled persons with special needs.

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