Women and ICTs for Open and Distance Learning: Some Experiences and Strategies from the Commonwealth

Lyndsay Green  
*Lyndsay Green and Associates*

Lawry Trevor-Deutsch  
*Strathmere Associates International Limited*

September 2002
The Commonwealth of Learning is an International Organisation established by Commonwealth Governments in September 1988, following the Heads of Government Meeting held in Vancouver in 1987. It is headquartered in Vancouver and is the only Commonwealth intergovernmental organisation located outside of Britain.

The purpose of The Commonwealth of Learning, as reflected in the Memorandum of Understanding, is to create and widen access to education and to improve its quality, utilising distance education techniques and associated communications technologies to meet the particular requirements of member countries. The agency’s programmes and activities aim to strengthen member countries’ capacities to develop the human resources required for their economic and social advancement and are carried out in collaboration with Governments, relevant agencies, universities, colleges and other educational and training establishments among whom it also seeks to promote cooperative endeavours.

The Chairman of the Board of Governors is Dr. H. Ian Macdonald and COL’s President and Chief Executive Officer is Dato’ Professor Gajaraj Dhanarajan.
# TABLE OF CONTENTS

1.0 Introduction ............................................................................................................... 1

2.0 Current Use of ICTs in Open and Distance Learning ...................................................... 2

3.0 Current Access to Open & Distance Learning ................................................................. 3

4.0 Barriers to the Education of Women ................................................................................ 5
   4.1 Illiteracy................................................................................................................. 5
   4.2 Poverty.................................................................................................................... 5
   4.3 Time Famine........................................................................................................... 5
   4.4 Socio-Cultural Factors............................................................................................ 6
   4.5 Mobility.................................................................................................................. 6
   4.6 Relevancy .............................................................................................................. 6

5.0 Additional Barriers with ICTs .......................................................................................... 7
   5.1 Barriers to Relevancy ............................................................................................ 7
   5.2 Barriers to Availability ......................................................................................... 8
   5.3 Barriers to Usage .................................................................................................. 11
   5.4 Barriers to ICTs for the Provider .......................................................................... 14

6.0 Strategies ................................................................................................................. 15
   6.1 Ensure Relevancy ................................................................................................... 15
   6.2 Improve Availability ............................................................................................ 17
   6.3 Increase Usability .................................................................................................. 20
   6.4 Policy Development .............................................................................................. 23
   6.5 Research ................................................................................................................ 23
   6.6 A Portal for Information on Women and ICTs ...................................................... 24

7.0 Selected Case Studies..................................................................................................... 24
   7.1 An Open Learning Package on Small Business for Samoa .................................... 24
   7.2 Exploring the Gender Impact of The World Links Program .................................. 27
   7.3 Grameen Telecom’s Village Phone Programme in Rural Bangladesh ................... 30
   7.4 International Women’s University and the South Pacific Telehealth Project .......... 33
   7.5 Online Conference: Information Access for Rural Women .................................. 36
   7.6 Including Women in the ICT Policy of the South Pacific ....................................... 39
   7.7 Interactive Radio Instruction in Zambia ................................................................ 42
   7.8 Opening Access to Information for Rural Women in Uganda ................................ 45
   7.9 Use of the Internet by Women as a Collaborative Tool ........................................ 49
   7.10 The Commonwealth of Learning Literacy Project – Kabwe, Zambia ................... 52
   7.11 Video: Women’s Tool for Development ............................................................. 55
   7.12 Women @ Telecentres: The Acacia Story ............................................................. 57

Appendix A: ICT Summary Meeting Participant List .............................................................. 61
Appendix B: Checklist for Addressing Gender-related Barriers to ICTs.............................. 65
1.0 Introduction

During the period from 1998 to 2001, The Commonwealth of Learning (COL) commissioned a series of research reports and held regional expert group meetings to address the barriers that women experience in using information and communications technologies (ICTs) for open and distance learning (ODL). The reports examined the situation in Commonwealth countries in four regions: Africa, Asia, the Caribbean and the South Pacific. The regional expert meetings for each of these regions were held in Tanzania (May 2000), India (November 1998), Barbados (November 1999) and New Zealand (May 2001), respectively. The national and regional reports are published in their entirety on the COL website (www.col.org/wdd) and are also available in hardcopy.

This report grew out of a desire to provide a concise synthesis of the detailed information generated by the research process in order to maximise opportunities for the findings to be implemented. The goal of the report is to provide guidance to those using ICTs for open and distance learning to ensure that women have equal access and are able to contribute to their full potential. Our objective is to provide a practical tool for those working in the field.

To ensure that our objectives were met, we established a working group to review a draft of the synthesis report, as well as to provide best case examples of women’s use of ICTs for open and distance learning. The working group was comprised of experts in the use of ICTs by women, including women who had participated in the regional meetings. A list of the participants of the working group is attached as Appendix A. The working group met in Ottawa in June 2002. In addition to completing the above tasks, the group also compiled a Checklist for Addressing Gender-related Barriers to ICTs (attached as Appendix B). This report reflects the collective knowledge and experience of the working group and was greatly enriched by their input.

The report is divided into two main sections. The first part highlights the lessons learned from the research material and compares regional differences. This section summarises the earlier research findings about the current use of ICTs in ODL in the Commonwealth developing countries, as well as the access that women have to ODL. Barriers to the education of women are discussed, followed by a detailed look at the additional barriers that are specific to the use of ICTs. The section concludes with strategies to address these barriers, as proposed in the research and augmented by the working group.

The second part of the report contains case study examples of women’s use of ICTs, some specifically focused on ODL and some with broader applications. Each case study includes the background of the project, the key results and the lessons learned.

Given that the first part of the report relies on a research process that began in 1998, some of the information cited may be dated. However, although the particulars of a given example may have changed, the overall findings have stood the test of time. The newly gathered case studies show that the same issues that were first registered by this research process have persisted. Our hope is that this report will assist in removing the barriers and accelerate the rate of progress in the years to come.
2.0 Current Use of ICTs in Open and Distance Learning

Print materials for distance education remain the most common medium for ODL in the Commonwealth developing countries. However, other media such as radio and television broadcasting, and audio and videocassettes often are used as supplements. Telephone and fax are used, often for tutor support. Two-way radio may serve the same function, and there is some limited use of e-mail. Face-to-face sessions at study centres may complement these media. Any significant use of new ICTs such as audioconferencing and videoconferencing, as well as computer-based communication (e-mail, Web access and online learning) currently is restricted to a few examples. However, these newer ICTs do feature in some of the plans for the future.

In the African region, most Commonwealth countries have been using distance learning mainly print-based, and often supported by radio broadcasts and audio/videocassettes for formal education for decades. The notable exception is the African Virtual University that uses satellite links to provide courses via videoconferencing to university campuses in 11 countries. Additional use of ICTs for ODL does appear in the future plans of some African countries. Zimbabwe Open University is in the process of setting up VSAT (Very Small Aperture Terminal) to provide programmes via satellite to students in all parts of the country. Future plans of the University of Swaziland’s Institute of Distance Education include the use of computers and the Internet. The Lesotho Institute of Extra Mural Studies plans to produce and broadcast education programmes for their students.

In the Asian Commonwealth countries, radio, television and audio/videocassettes have been used to support both formal and non-formal education for decades. New ICTs are beginning to be used in a few countries. Malaysia’s recently established private virtual university is offering degree and diploma programmes on the Internet, audiographics have been used in the training of medical personnel, and videoconferencing has been used at a few universities. There has been a steady increase in the use of e-mail for student interaction to support print-based ODL. However, future plans focusing on rural areas plan to expand the use of more traditional ICTs. The University of the Air will use television to reach people with educational programmes, and applications are being considered to broadcast educational programmes on private radio channels to villages, many without electricity. The Open University of Sri Lanka (OUSL) uses primarily print-based courses, but offers some audioconferencing. Both the Internet and e-mail are being used by staff, and to a limited extent by students. In Pakistan, efforts are being made to establish a computer network for Allama Iqbal Open University.

In the South Pacific, there is long-standing use of more traditional ICTs. Since 1963, the Ministry of Education in Tonga has provided up to five hours per week of distance education by radio through its Schools Broadcasting Division, as well as broadcasting some educational television programmes. Currently, the University of the South Pacific (USP) is the largest provider of ODL courses in the region and a significant user of new ICTs. Although print remains the primary medium, courses are supported by audio and videoconferencing, Internet access and e-mail, and as well, some courses are offered online (all provided through USPNet). The USP Law School uses the Internet through its own website and e-mail to provide courses to its students. There are some other efforts in the region to use newer ICTs for ODL. The National
University of Samoa recently established an online videoconferencing link with American Samoa.

Traditionally, Caribbean countries received print-based correspondence courses from foreign providers, particularly from the United Kingdom, and the indigenous organisation and implementation of ODL is relatively new. Reports from the Caribbean countries concluded that the potential for ICTs in education remains largely unexplored, with some notable exceptions. The University of the West Indies (UWI) is the primary indigenous institution to provide distance education to the region. The University of the West Indies Distance Teaching Enterprise (UWIDITE) dates back to 1983 and is based in the Jamaica campus of the university. UWI has 26 sites spread across 14 countries, and each site is equipped with one or two audioconference rooms and a 10-station computer laboratory with Internet access. The primary delivery method of UWI’s Distance Education Centre is pre-packaged self-instructional print materials. As an example of the media mix, the Barbados report estimates that about 8% of the UWI course material is supplemented with new technologies, specifically computers and audioconferencing, although efforts are being made to put videoconferencing in place. There are several other providers of ODL in the Caribbean using some ICTs, particularly in the case of teacher training. For example, Belize Teachers’ College has a network of education centres connected by audioconferencing facilities. The reports also refer to a number of external providers, including universities in both the US and Canada that provide ODL courses for Caribbean students. Through the Canada Caribbean Distance Education Scholarship Programme, for example, graduate teachers are trained using mainly print, supplemented by audioconferencing, fax and e-mail. In Trinidad and Tobago a Distance Learning Secretariat will be sourcing distance-based educational and training programmes from local, regional and international institutions, and setting up structures to make the programmes widely available throughout the country. A key component of the initiative is the establishment of community-based distance learning centres to be equipped with a television, audio and videocassette recorders, and computers with Internet access.

3.0 Current Access to Open and Distance Learning

There is an assumption that women in the developing world are relatively well represented in education and training opportunities provided through distance and open learning. However, the COL project found data to be limited on how many women register and complete distance learning programmes. The information presented shows that women are not equitably represented in ODL courses in all countries, and there is significant variation both between and within regions.

In Africa, men greatly outnumber women in most distance learning programmes for which statistics were provided, and this is true whether or not ICTs are the delivery medium, and appears to hold for both formal and non-formal training. When it comes to non-formal ODL, the experience in Kenya is probably representative, with learners tending to be men in distance education initiatives such as agricultural extension programmes, and programmes for health field workers, co-operative extension officers and teachers. Women tend to be the majority in adult literacy classes and traditional birth attendants’ health programmes. In Mozambique, the INSET course trains primary in-service teachers using ODL, and 1999 enrolment statistics show more
men than women participating in the programme on a ratio of almost two to one. At the University of Zambia, during the five-year period 1994-1998, females comprised 17% of the total enrolment in distance learning. Data from 1999 for the Zimbabwe Open University show that women comprise about one-third of the student population. The report from Tanzania found that institutions do not collect accurate data on gender participation in their ODL programmes, but experience indicates that women are in the minority. Women comprise 17% of the enrolment for four courses at the Kenyatta University Campus of the African Virtual University (AVU) (courses on the Internet, Physics and Calculus). The gender disparity for these AVU courses is greater than the overall participation rate of women in the Faculty of Science, which is 23%. Female enrolment for the AVU at the Uganda Polytechnic at Kyambogo was 36% in 2000.

In the Commonwealth Asian countries most of the ODL enrolment figures cited were much closer to parity between male and female students, with the exception being those presented for India. The Sri Lanka report finds no gender disparity in women’s enrolment in schools and tertiary educational institutions, and no apparent difference in trends between conventional universities and ODL institutions. Women represent 60% of the students following external degree programmes. In Malaysia, 46% of the students at the Institute for Distance Education at Universiti Putra Malaysia are women1, and in Pakistan, 43% of AIOU students are women. However, in India, the enrolment of women in Indira Gandhi National Open University (IGNOU) was 28.4% in 1998.

The data cited from the South Pacific also shows overall gender parity in participation in ODL programmes. The University of the South Pacific is the largest provider of ODL courses in the region with a total of 4,204 enrolments in 2000, and 48% were women. However, there is variation among the USP campuses in the various countries. In the Solomon Islands, 25.5% of the USP students are female, in Vanuatu the figure is 35%, and in Tuvalu and Kiribati about 60% are female.

Reports from the Caribbean identified few gender-based barriers to the use of ICTs for most women. At all levels and in all countries the participation rate of females in education outstrips that of men and, where data is available, this includes the use of ICTs2. The reports from Jamaica, and St. Kitts and Nevis also noted that more women than men tend to make use of computer-based literacy programmes. However, this high rate of participation is not viewed universally as praiseworthy. The report from Guyana explains that the level of female involvement in distance education there is because the programmes focus on training for traditional female roles: low-paying, low-status jobs, notably in teacher education, junior positions in the public sector, and in food service.

1 As of May 2002, out of a total of 13,117 students enrolled at the Institute for Distance Education at Universiti Putra Malaysia, 46.9 % are women.

2 As of April 2002 UWI noted that enrolment still follows the same pattern as for face-to-face; more women than men register for and complete training at a distance. In the B. Educational Administration programme for senior teachers, it is almost all women who enrolled in each of the three cohorts they have had since its inception. The only exception is the Advanced Diploma in Construction Management (a low enrolment programme), where they find a greater number of males than females.
4.0 Barriers to the Education of Women

Many of the barriers women face in accessing ODL using ICTs are the same ones they face when accessing education of any kind. In this section we examine the factors that inhibit women from furthering their knowledge, regardless of medium – illiteracy, poverty, time famine, socio-cultural factors, mobility and relevancy. The next section looks at the additional barriers that are brought into the picture when education is provided by ICTs.

4.1 Illiteracy

Illiteracy was raised as the major barrier to women’s education for most Commonwealth African and Asian countries. In most sub-Saharan African countries, about 70% of adult women are illiterate with similar figures for those Asian countries that cited data. As the report from Malaysia said, “Without basic literacy, there is no access to more and higher education, much less to ICTs. The challenge of illiteracy must be overcome before women can benefit from ICTs.” In the South Pacific the issue of illiteracy was mainly raised for women in the rural areas and outer islands. In the Caribbean, female illiteracy was not viewed as a gender-based barrier.

However, as we discuss in the next section, when using some ICTs, such as video and audio, illiteracy may not present the same significant barrier to learning. (For example, see the case study Video: Women’s Tool for Development.)

4.2 Poverty

Poverty and lack of economic power is borne much more by women than men, especially as reported in the African and Asian research. As a result, women have much less access to disposable income for expenditures related to education. As the report from Zambia described the problem, “Women are generally not engaged in their own economic activities and very few women have money. In many cases, their husbands bar them from making money. Since they need consent from husbands to obtain loans, some women may have no access to lending institutions.”

4.3 Time Famine

All the regions made reference to the fact that women have less time to learn because of heavy domestic chores. The Tuvalu report explained that women’s family and household commitments make it hard to access education. In Kenya, a programme called Regional Reach provides rural populations with information in local languages through community screening of videotapes focusing on current social problems. Women viewers comprise only about 16% of the audience during the week, due to their household chores and responsibilities. Both the reports from Malaysia and Nauru pointed out that women remain the primary caretakers of the children (as is the case in the rest of the South Pacific), even though more of them are now in the workplace.

And, in a majority of households, most career women still bear the brunt of household chores. To quote a Caribbean respondent, “In some ways the Internet is a tool for those with lives of leisure.”
It was noted by several reports that synchronous ICTs can exacerbate the barriers of time famine for women. As the report from Guyana explained, if ICTs require synchronous contact, women are more likely to be placed at a disadvantage, given the higher demand on their time and their more limited mobility.

4.4 Socio-Cultural Factors

The broader socio-cultural factors that perpetuate women’s inequality in society, and hence undervalue their need for education, were raised mainly by the African and Asian countries. As the Ugandan report said, “A woman’s place is assumed to be in the home and therefore it is considered that she does not need an education.” The Pakistan report explained, “The socio-cultural and economic constraints that prevent women’s access to educational programmes are tribal and feudal set-up, male-dominated decision-making, lack of parental support for daughter’s education, female segregation and seclusion.” The Bangladesh report explained that neither education nor the use of ICTs is considered important for women, due to the legally and socially unequal status of women. Although this concern was expressed less frequently in reports from the South Pacific, the report from Tonga made reference to studies that “showed that men continue to crowd out women’s access to the training required for higher skilled work.”

The lack of women teachers/trainers was identified as a major barrier to education in all regions but the Caribbean. The importance of the role women teachers can play in balancing gender disparities is acknowledged in government education policies in some regions. For example, the Ministry of Education in Zambia has committed itself to ensure that every school employs some female teachers to provide appropriate role models for girls. The absence of female role models can particularly reinforce gender stereotyping in the fields of science, mathematics and technology. Even in the Caribbean countries, where there is a higher proportion of women than men in tertiary education, a concern was raised about the tendency for women to restrict themselves to socially accepted, non-technological streams. The caution was raised that this trend could have long-term implications for continued gender differences in access to and use of ICTs.

4.5 Mobility

A combination of the impact of all the above factors, illiteracy, poverty, time famine and socio-cultural restrictions, can severely restrict a woman’s mobility. This lack of mobility can hamper a woman’s ability to benefit from educational opportunities (whether offered traditionally or through ICTs) if she needs to travel some distance to access the courses, or if the courses are offered at a time or place that is either unsafe or culturally prohibited.

4.6 Relevancy

One of the most significant barriers to women’s access to education (with or without ICTs) is the lack of relevancy of the content. When learning strategies fail to value women’s knowledge, wisdom and experience, the education is not perceived as valuable to them. Because this is such a pivotal barrier in the potential for women to access educational opportunities, we give it
extensive examination in the next section, which looks at the additional barriers that women encounter when accessing ICTs for ODL.

5.0 Additional Barriers with ICTs

What additional barriers do women encounter when accessing ICTs for ODL? The barriers can be summed up in three major categories: relevancy, availability and usage. Relevancy is the most significant barrier affecting women’s access to ODL delivered by ICTs. Unless the content delivered by ICTs has a direct impact on women’s lives, they will not have an incentive to tackle any barriers. The Kenya report concluded that only when women’s lives require them to use ICTs would women see practical and immediate benefits. “Apart from the telephone, women do not as yet require the use of other ICTs.” As for availability, although most barriers to the availability of technology apply equally to men and women, many are particularly acute in remote and rural areas. As a result, the impact on women is more severe, since more women than men usually reside in such regions. Usage includes barriers such as high costs, lack of skills and information, and socio-cultural barriers that restrict women’s usage of ICTs for ODL.

The following subsections examine the barriers of relevancy, availability and usage. In addition, we look at the barriers to the use of ICTs for the providers of ODL, since it is the providers who determine what options are available to the learner.

5.1 Barriers to Relevancy

The major barrier to the use of ICTs for women is its lack of relevancy to their lives. Before women even attempt to address the access barriers posed by the use of ICTs, they need a very good reason to do so. So far, according to all the regions except the Caribbean, those reasons are not readily apparent, neither for rural nor urban women. As the Samoa report phrased it, “Many women do not perceive the need and benefits of ICTs.”

Women encounter barriers to the use of ICTs when the learning content is not directly relevant to their livelihood, and when it does not value their knowledge, wisdom and experience. If the instructional design and learning strategies are not gender-appropriate, women fail to reap the potential benefits of ODL.

The issue of lack of relevancy was often raised in the regional reports. The report from Kenya points out the need for local and meaningful content in the country’s radio and television programmes, since most programming is foreign and irrelevant to the needs of women. The report from Zambia also emphasises that too little attention is being paid to collecting locally produced information. “Most of what is on the Internet tends to be foreign and there is a lack of local information resources and services for people in their local conditions.”

This lack of relevancy is compounded when ICTs use English, and English is not the language of the learners. As the report from Uganda said, “Most of the content available in the Web is in English, which poses a language problem.” The report from Pakistan concludes that unless the software to be carried by ICTs is programmed in local languages, the possibility of use of ICTs to deliver ODL to rural women and girls seems remote.
The issue of relevancy strongly emerges in the recommended strategies discussed below, including the need for gender-appropriate policy, both in education policies and those regarding ICTs. (See Ensure Relevancy.)

5.2 Barriers to Availability

The lack of technology (or of an adequate technical infrastructure) is a significant barrier to the use of ICTs for ODL, both for the more traditional ICTs such as audio and video, and radio and television broadcasting, as well as for the newer computer-based ICTs. The following sections examine the infrastructure that needs to be in place to ensure the availability of technology – access to equipment, access to an adequate communications infrastructure, electricity access, Internet access and access to technical support.

Equipment Access

Universal access to more traditional forms of ODL equipment, including radios, televisions, audio and videocassette players is a problem in most countries, especially in rural regions. Whatever limited access there may be to computers and the Internet is usually concentrated in the urban centres, and most often found at the workplace rather than in people’s homes. In Africa radio is often cited as the medium most accessible to rural women. A needs analysis of two poorer districts in Kenya found relatively high percentages of women listen to the radio (62% and 57%) and only 33% had a cassette player. An insignificant percentage has access to television and, whereas most Zambians in both rural and urban areas have access to radios, the majority do not have access to television, telephones, faxes or computers. In Malawi, 100% of the rural community, almost 98% of the urban poor, and 85% of the urban better-off cannot access, own or use a computer. Overall, 5% of the population own a computer, 10% own a videotape player and less than 1% own other media equipment. Results of a media use survey carried out among 34 students at the University of Botswana found that a third of them had a computer at work and none of them had a computer at home.

The Asia reports also talked about a similar lack of equipment for ODL. In Bangladesh, the Bangladesh Open University has to limit its use of radio, television and audio/videocassettes because of lack of appropriate equipment at the grassroots level and lack of infrastructure needed for widespread dissemination. In Sri Lanka, an attempt was made to solve the lack of equipment through the use of study centres, but even access to the equipment in the study centres remained a problem for women because of a combination of factors – difficulty reaching the centre, lack of time and socio-cultural barriers. (See Improve Availability – Provide Equipment below.)

In the South Pacific, research into barriers to the use of ICTs faced by women students of USP found the major barrier to be equipment access at study centres. The small number of computers was aggravated by staff use of the computers for their own work, the centres’ restricted hours and a lack of maintenance skills. As well, costs of transport to the centres were prohibitive. (See Improve Availability – Provide Equipment below.) The report from Tonga explained that only middle class and women in management posts have access to the Internet and e-mail due to the high cost of computers, modems and Internet access.
The report from Trinidad and Tobago stressed that a major barrier to the meaningful participation of women in ICTs for ODL is the underdeveloped nature of the educational institutions’ technological infrastructure. Access to equipment is not much better in the workplace and the situation of one computer and/or modem per office creates competition for existing technology and becomes a limiting factor to access. There are some initiatives in the Caribbean to address this barrier. In Belize the government has pledged to support the establishment of ICT programmes in every secondary school and in select primary schools. In Barbados, Programme EduTech 2000 aims to equip all primary and secondary schools with ICTs over a seven-year period. As well, working women are able to upgrade their ICT skills through centres located across the island.

**Communications Infrastructure**

Lack of access to a communications infrastructure that allows for the use of the new ICTs in ODL is a problem, at some level, for all countries. The issue was most often emphasised by the African countries – with the problem being most severe in rural areas. The Ghana report concludes that, since no countrywide telecommunications network has been established, and given the current low level of infrastructure development for ICTs, it is not expected that women will have access for ODL, even in the national capital. The Botswana report talks about traffic congestion due to severe capacity constraints, institutional inefficiency, inadequate maintenance, low levels of skill, diversity of equipment, lack of common operating standards and procedures. In Kenya, there are serious problems with Internet connections or “dial-up” using a telephone line because the bandwidth is low (the highest rate is 19.2 kilobits per second), the line signal is of poor quality, congestion causes “traffic jams,” and line breakdowns happen due to either natural or physical calamities. As well, satellite breakdowns may cut off all forms of telecommunications between Kenya and the outside world. The problems for the user resulting from lack of adequate telecommunications infrastructure are well illustrated by the example provided by Uganda. Up to 80% of the digital telephone lines and modern switching equipment is located in Kampala, with other areas having largely old and unstable lines. Resulting problems include high usage costs due to the slow rates at which data can be transmitted or received, high percentage of failure to connect due to the poor quality of the lines, and limitations on the applications that can be used (e.g., in some areas it is not possible to access the Web).

The problem of infrastructure barriers was also raised in the South Pacific reports. Research into barriers to the use of ICTs faced by women students of the University of the South Pacific found that slow and unreliable links created great difficulties in downloading material and participating in online discussions.

Although the Caribbean region has a well-developed transmission and switching infrastructure which includes a regional fibre optic network providing high bandwidth transmission capability between the islands and the rest of the world, they are not immune from problems, especially as demand increases. The report from Jamaica states that the user is often unable to access the Internet because of congestion on the line.
Problems with restricted access to telephone service are again most often raised in the African country reports, and were also raised as an issue in the Bangladesh report. Telephones are more readily available in towns and rural access is often poor. In Bangladesh there is on average one telephone per 240 people nationally, and in rural areas the ratio is closer to one telephone for every 2,000 people. In Uganda, the 1998 telephone density was only 0.29 lines per hundred population, and it is predicted that the 2000 target of two lines per 1,000 is going to fall far short. In addition, digital telephone service may be confined to the major centres while the rural areas have older, less effective equipment.

**Electricity Access**

Problems with access to electricity are most extreme for the African countries and were also raised by other countries such as Vanuatu and Belize, where lack of electricity is a problem in rural areas. In many African countries electricity is available only in towns and in a very few rural areas. In Malawi, 84% of the population lives in rural areas that do not have electricity. Only 8% of Kenyan homes have power, largely in the urban areas, and only 10% of the population in Tanzania has access to electricity. In Zimbabwe rural areas are not wired electronically. Only clinics, hospitals, shops and about half of the secondary schools are linked to the electric grid. However, there are some plans for improvement; e.g., Lesotho plans to install electricity in all households and make more use of solar power systems.

**Internet Access**

Lack of Internet access poses a problem for most of the countries. There are few subscribers overall, of which women likely represent a minority. Statistics on overall Internet access were only provided for the region of Africa, where only 0.1% of the African population has basic Internet services (Africa Online 1997). The report from Malaysia cites estimates from two Internet Service Providers (ISPs) that about 30% of their subscribers are female, although the percentage of the overall population that subscribes to the Internet is not provided.

Initiatives are being taken in some Caribbean countries to improve Internet access. In Jamaica, as part of a new national telecommunications strategy, the telephone company must install 60 Internet terminals at post offices to allow greater public access. In Dominica private cybercentres allow users to access the Internet for a fee. The report from Dominica concludes that both males and females are increasingly accessing the Internet and, while users tend to be concentrated in the urban areas, the disparity between urban and rural users is not as great as in other Caribbean countries.

**Access to Technical Support**

Access to computer equipment is short-lived without access to technical support and, in most countries, this is at a premium. There is a lack of access to technical information, computer parts and repair services. High rates of technological obsolescence are another problem. As the report from Malawi phrased the problem, “ICTs are all imported which makes servicing them and providing training on them difficult. Because of the high cost of service and spare parts for computers, the fear of breaking them makes their use prohibitive.” The report from Dominica
discussed challenges in the use of technologies at the classroom level including frequent equipment breakdowns, tardy repairs and the high cost of replacement parts.

5.3 Barriers to Usage

Even assuming the availability of ICTs, many barriers may inhibit an ODL learner from using the technology. The costs may be prohibitive, the learner may not have the necessary skills, the learner may not be aware of the service and/or the socio-cultural conditions may inhibit the learner’s access. The following sections look, in turn, at each of these factors that affect usage.

Costs

Although there is interplay between costs and all the other barriers, costs can pose such a significant barrier, they need to be highlighted on their own. Either acquiring or accessing the necessary equipment required to use ICTs for ODL may have significant cost components. If learners needs to incur the capital cost of purchasing the equipment, they also face the high costs of maintenance and of obsolescence. In addition, the costs of powering the technology, whether by electricity or battery, can be prohibitive.

With the use of newer ICTs, access to the Internet through an Internet Service Provider (ISP) may be another learner expense and Internet connection can be expensive. The Kenya report cited their costs as US$100, as compared to US$50 in Tanzania, and US$20 in South Africa. In Uganda Internet service subscribers can expect to pay an average of $65 per month in service fees, in addition to a telephone usage charge for the time they are online. The Zimbabwe report explains that people can access the Internet and e-mail through private Internet cafés and libraries, but they are charged for these services (e.g., US$50 for 30 minutes). Reports from the South Pacific Islands of Tuvalu and Vanuatu both raise the problem of high costs for Internet and e-mail access as barriers to accessing USP ODL courses. The report from Belize explains that the high cost of access has created severe limitations for both public and private sectors.

To avoid incurring these costs personally people may access the Internet at work. According to the report from Malaysia, in these situations, women may be handicapped by their lower employment status. More men than women work in academic, management or technical positions that offer free access as one of the prerequisites or fringe benefits of their jobs.

High telephone charges may inhibit users from either using the telephone for more traditional tutor support or to go online. For example, the Kenya report points out that telephone prices are high for any meaningful open and distance learning initiative to be utilised effectively. Telephone installation costs slightly more than $100 and the monthly payment depends on usage. The Ghana report emphasises that telephone lines are very expensive, which makes dial-in access to the Internet very expensive.

Course fees are another cost that may be incurred by learners in order to access ODL courses. If a course is more expensive to produce and deliver because of the use of ICTs (see Costs), those additional costs may be passed on to the learners. Course costs impact male and female learners alike, but to the extent that women have less economic power, they are more adversely affected.
The AVU at Uganda Polytechnic at Kyambogo found increasing tuition resulted in a decrease in the number of students. Initially the World Bank subsidised students’ tuition, and now students are responsible for their own tuition.

In addition learners may also have to bear the cost of any training necessary to acquire the skills to effectively use the ICTs for ODL.

**Skills**

The use of any technology for ODL may require the learner to acquire skills. All regions emphasised the severe barrier for women in accessing the new ICTs for ODL because of lack of computer skills. Some data was made available from each region to illustrate the problem. Research from Malawi found that a total of 29% of women are employed but only 5% of them know how to use ICTs. In formal schools fewer than 2% of the students know how to use ICTs. In two sample districts of Kenya, 19% of the women had seen a computer, but only one knew how to use one. A Bangladesh survey of women professionals found that 60% had no exposure at all to computers, and the computer knowledge of the remaining 40% was limited to word processing. Eighty percent of the women students of the University of the South Pacific (USP) indicated a lack of computer literacy and appropriate training to be a barrier to their use of ICTs for ODL.

Along with computer literacy many ODL applications using the newer ICTs require skills in the English language. As the report from Zambia explained, “The use of ICTs is restricted to English speakers because of the dominance of the English language on the network. For a rural person who may only know how to read and write in his or her local language, this feature is a major barrier.”

Another barrier to the use of the newer ICTs is the new learning skills they may require. Learners may need to be more self-directed in their learning and/or rely on new forms of group interaction. The lack of these skills may also be a barrier to effective usage.

**Information**

A number of reports emphasised the lack of access to information about ODL delivered through ICTs. At a basic level women need information about what training courses are available. The report from Malawi points out that potential students are often unable to afford newspapers that might carry advertisements for ODL programmes. Women also need to know where they might access ICT equipment and training in order to participate in ODL offered by ICTs. They also need information about the broader issues around the importance of ICTs – its potential relevancy and capacity.
Socio-Cultural Factors

In addition to the lack of access to technology as described above, there are many reasons why equipment may be available and yet not accessible by women because of socio-cultural factors. Examples of socio-cultural barriers were most often raised in the Africa and Asia reports. As the Sri Lanka paper phrased it, “It can generally be said that ICTs are male-dominated and women are not the first to gain access and use ICTs because of cultural and socio-economic factors.” Both the Zambia and Kenya reports explained that, “Men own all the technology.” In most homes, particularly in rural areas, men own the radio and television sets, sometimes making the equipment inaccessible to women even within their own home. The Malawi report explained that, even if an urban household owns or has access to a computer, women and girls in the family will not know how to use it, and may not be allowed to touch it unless working or going through training. As for accessing equipment outside of the home, in many countries, especially in rural areas, mature and illiterate women do not socialise with men. The report from Kenya explained that there would be problems if women tried to access equipment in meeting places that are regarded as men’s preserves, such as rural shopping centres, libraries and community centres. Also in Pakistan, if computers are located in study centres, women will encounter the problem of female segregation. This problem can take a different form in urban workplaces. The example is given from Zimbabwe that the shortage of terminals or access points means that access to computers is often allocated according to seniority. Because their male counterparts are usually in higher positions of authority, this practice discriminates against female staff.

ICTs can be a threat to traditional systems. In some villages in Fiji for example, television is not allowed for cultural reasons and therefore a course on videotape would not be very practical.

Reports from all regions except the Caribbean make reference to the fact that women’s lack of confidence may further reinforce socio-cultural barriers. The Botswana report referred to literate women who have access to ICTs in the workplace but are afraid to explore their use. “They lack the necessary confidence and need to be encouraged.” The report from Uganda explained that even when a woman can get an education, dabbling in computers and other ICTs is considered a technical field to be left to men. The Malaysia report stated that some women who could access ICTs suffer from technophobia. They prefer to have their husbands or sons obtain whatever information they need from the Internet on their behalf. The Tonga report explained that the tendency to direct women into non-technical professions means that women feel fear and embarrassment when dealing with ICTs. The Sri Lanka report concluded that gender-based socialisation has had an impact, with girls having less confidence towards the use of technology.

This lack of confidence is reinforced by the absence of women as teachers and trainers in technical fields generally, and in ICTs training specifically. The Zambia report emphasised the need to have female teachers provide training in ICTs, so as to provide women with role models in the technological field. In addition, they should be non-mathematics and science specialists – “to attract women to undertake training in the usage of ICTs and to remove the stereotypes associated with computer training.”

The Caribbean countries are unique in reporting few socio-cultural barriers preventing women from accessing the new ICTs. One of the reasons is the perception by males that computing skills
is a female preserve. As a result, when technologies are available, women access them far more than do men. As an example, data provided from Dominica of computer-training programmes show a predominance of female participants, with females outnumbering males sometimes as much as five to one. However, age was seen as a barrier to the use of ICTs for some women and rural women, mainly the poor and unemployed, are being left behind. It was also emphasised that while there is high visibility for women in ICTs, there is low authority and this gender issue remains constant across the Caribbean.

5.4 Barriers to ICTs for the Provider

Before ICTs can be adopted by the ODL learner they need to be embraced by the provider. The report from Jamaica identified lack of institutional preparedness, rather than gender barriers, as being the main issue for women in the use of ICTs for ODL. They used the term to encompass the macro-national level and the micro-institutional level. The report from Trinidad and Tobago also emphasised the need for the internal structures of the education institutions to change significantly if they are to reap the benefits of the new technologies. There are significant barriers that a provider encounters when moving to the use of ICTs to produce and deliver ODL. The barriers described in the reports can be summarised as costs and teacher readiness, as discussed below.

Costs

Several African reports emphasised the high costs to the provider of using ICTs – both for programme development and delivery. For the Botswana College of Distance and Open Learning the move towards audiocassettes has been expensive and “cassettes” are currently one of the largest line items in their budget. In Mozambique the INSET course to train primary in-service teachers at a distance uses print materials only because of the higher cost of producing other media such as audiovisual materials.

In some countries the use of ICTs have been discontinued due to high costs. The Kenya Institute for Education’s radio broadcasts for schools were discontinued because charges for airtime were exorbitant. In Malawi mobile libraries were introduced in rural areas to support the adult literacy programme, but the programme could not continue due to a lack of resources. In Dominica the School of Continuing Studies ran an ODL program for teacher training for two years with a 50% government subsidy. The program folded when the subsidy came to an end.

Since there is currently minimal infrastructure in many institutions offering ODL, the cost of purchasing computers would be a very large barrier. Data provided from Malawi show that while all universities have computers, only 20% to 30% of secondary schools and possibly 2% of ODL institutions have computers (or typewriters) in their institutions.

Maintenance is a major on-going expense for the ODL provider and one often overlooked. The Distance Education Centre of the Solomon Islands College of Higher Education operates 25 study centres where students communicate with tutors via post, telephone, two-way radio and facsimile. Each study centre was originally equipped with phones and teleconferencing
equipment donated by COL. However, the equipment has not been maintained due to lack of technical know-how, and students now rely on paid telephone.

The report from Kenya, referring to AVU, makes the observation that it remains to be seen whether the satellite mode of delivery with its huge costs will be beyond the reach of Kenyan distance education institutions. The report from Trinidad and Tobago points out that the current programme to establish a network of community-based learning centres is an appropriate and necessary measure, but there may not be adequate financing available to sustain support for the dissemination of educational material using all the technologies.

Teacher Readiness

Lack of teacher readiness can be another significant barrier to an institution’s use of ICTs for ODL. As the Botswana report put it, “How willing is the faculty to recast their teaching and learning processes?” The report from Trinidad and Tobago said the education institutions would need to change their curricula, teaching-learning methodologies and staff functions if they are to benefit from new technology. Research into barriers to the use of ICTs faced by women students of the University of the South Pacific found that academic staff lacked ICT skills. The staff also need training in adapting ODL learning material to the new electronic media and in their new roles of teacher, facilitator and mentor. And, like the students, they had problems with lack of technical support and low-speed modem communication due to low bandwidth. Reports from both Jamaica and St. Kitts and Nevis identified the need for training for faculty who use traditional instructional methods and who find it difficult to devote sufficient time to learn to integrate the new technologies into their instructional design.

6.0 Strategies

This section examines the strategies proposed in the reports to deal with the barriers to women’s use of ICTs in ODL. The discussion of the strategies is structured to address the barriers identified above and are titled: Ensure Relevancy, Improve Availability and Increase Usability. Two additional categories follow: Policy Development and Research.

6.1 Ensure Relevancy

All regions proposed specific methods to improve the relevancy of ICTs to the lives of women in order to reduce barriers to ODL. The strategies focused on three themes: work through women’s organisations, work with women leaders and change agents, and develop ODL content that matters to women’s lives.
Work through Women’s Organisations

The Malaysia report recommended giving the roles of support and training for women to those women’s organisations that already have facilities in place for ICT training programmes. One such example cited was FemiNet Malaysia3, which was established in early 1998 as an ICT resource centre for women. The report from Uganda also says, “place technology directly in the hands of women.” They recommend the group Isis – Women’s International Cross-Cultural Exchange (Isis – WICCE), a women’s organisation that has set up pilot information units for use by women in three rural communities.

Reports from the South Pacific suggested working through community-level women’s organisations that may not currently be working with ICTs, such as non-government women’s organisations and church groups. As the report from Tonga said, “The rapid growth of women’s NGOs at all levels (owing to more frequent participation in international fora) and their demonstrated ability in development education, training, community and business activities, make them a key element of any strategy to encourage women’s participation in ODL and the use of ICTs.” This point of view was also expressed in the report from Barbados, which explained that women are organised and mobilised for empowerment through the work of several women’s groups on the Island, and greater use and understanding of ICTs could only serve to enhance their function.

Other reports recommended creating new women’s organisations for ICTs. The Zambia report proposed providing radio and television sets to women through women’s clubs for ODL. The report from Swaziland envisioned ICTs being placed in women’s resource centres.

Work with Women Leaders

The report from India recommended the training of catalysts – those women who are considered agents of change. “This is the army of workers responsible for implementing a variety of programmes.” The Ugandan report also emphasised the need in rural communities for capacity building among those women who play crucial roles including local leaders, extension workers, community development workers, NGOs, CBOs and various media practitioners.

Make Content that Matters

Strategies for ensuring content relevancy of ICTs for ODL focus on valuing women’s knowledge, wisdom and experience. Learning strategies and instructional design should be gender-appropriate and build on traditional communications methods. Participatory methods should be used to design and develop the content and learning systems to reflect the lives of women. ICTs should be designed and used appropriately so as to overcome literacy barriers, and the use of local language content should be considered.

---

3 Although FemiNet did have plans to provide training at the time, this did not occur because of financial constraints. The role was replaced by HAWA (Department of Women’s Affairs in the Ministry of National Unity and Social Development) and WIM (Women’s Institute of Management).
The recommendations for creating relevant content for women focus on linking the use of ICTs with women’s daily lives and with their most pressing needs. Research done in the Caribbean found that women tend to be very clear in their purposes for the use of ICTs. In cases where ICTs are not of obvious relevance to their day-to-day experience, they are unlikely to become integrated into their lives. Women in rural communities, in particular, need to be able to access the kind of training most relevant to their livelihood. The report also noted that women need to be involved in software development including that which might best relate to indigenous and traditional knowledge.

Several recommendations were made that focused on the creation of databases of importance to women. Recommended topics included health, legal issues and constitutional issues. The Malaysia report recommended that websites be set up by women’s organisations to provide a forum for women to share and exchange information and to network effectively for mutual support and empowerment. One such example is FemiNet Malaysia (http://www.intimal.edu.my/gansl/Feminet) which was established in early 1998 as an online IT resource centre for women. The Uganda report also proposed online organisations for women to operate as information hubs by distributing information from the Internet to the community. Groups and organisations for women should be encouraged to develop their own Internet-related projects. The Kenyan paper proposed that, in Kenya, content could be in the national language “Kiswahili” and some could be in local languages. This would combat the view that the Internet is western and represents a foreign culture. Young women trained in computer skills could assist in creating the databases.

It was recommended that ICTs be used to deliver ODL programmes that are of high priority for female learners. In Belize, the Department of Women’s Affairs identified the following women’s priorities that could be addressed by ODL – reproductive health, economic empowerment, domestic violence, sexual harassment, women in decision-making positions, and education in non-traditional areas. The report from Zimbabwe recommended that programmes pertaining to women’s issues, such as those developed by the Federation of Media Women Zimbabwe (FAMWZ), be broadcast on radio (see projects below). Programmes would include health, economics, self-reliance and literacy. In Malawi, for example, 80% of the learners in adult literacy classes are female. They tend to relapse into illiteracy after the programme because of a lack of post-literacy books and communications technologies. Special ODL programmes using ICTs could be introduced for new literacy graduates to enable them to maintain their skills. The Uganda report also talked about the need for programmes to teach writing and reading, preferably in the local vernacular.

6.2 **Improve Availability**

**Provide Appropriate Technology**

The reports emphasise that the most effective way to ensure access by women to ICTs for ODL is to use appropriate technology. ODL should be learner-centred, and the medium should be selected based on an assessment of the learner needs, taking into account the desired knowledge and skills, as well as the broader technical environment.
Many effective strategies use a multi-media, multi-faceted approach, sometimes combining the traditional with the modern. Conclusions drawn from research on the University of the South Pacific ODL activities proposed a blended approach to the issue of appropriate technology. For people in rural areas in the South Pacific, print packages are still the best mode for learning, and radio also provides a viable alternative. In the future, telecentres may provide isolated populations with access to ICTs. “In this study the message was clear: there was strong support for the use of ICTs and a combination of delivery methods for education.” Women preferred a mixed mode of learning which would include face-to-face and online delivery and communication.

The report from Zimbabwe concludes that print media with audio support is the most acceptable mode of delivery because it is more cost-effective and more easily accessible to students scattered throughout the country. The Zambia report recommended the use of lower-cost, user-friendly technologies capable of providing the most essential services, e.g., community-based radio stations. In Malaysia plans are to expand the use of radio and television for ODL to reach inhabitants of remote areas and certain marginalised people, including the poor and women, since access to computers is beyond their means. The Open University of Uganda will be using radio to meet the educational needs of women in rural areas where the majority of women live.

In many countries literacy barriers mean that technology cannot be “appropriate” if it relies on the written word. The report from Bangladesh concluded that, because literacy is not a prerequisite, radio and television broadcasting is the key to bringing education to people in both urban and rural areas. The Zimbabwe report stresses the advantage of using radio and audiocassettes for programmes on women’s issues including health, economics and self-reliance, because they can impart knowledge without demanding literacy. Certainly, in many regions of many countries, any technology that required literacy in the English language would not be “appropriate technology.”

For all these reasons, using appropriate technology would rule out the use of computer-based ICTs for ODL for many countries and regions. However, while acknowledging this reality, none of the regions wanted to cut off any part of their population from the potential benefits of the digital revolution in the long term. One proposal to reduce the barriers around the use of computers for ODL was recommended in the report from Zambia: provide a low-end computer service including storing and forwarding e-mail, e-mail based services such as mailing lists, and provide e-mail-enabled access to websites.

There was unanimous support for pursuing policies and programmes to develop ICTs to widen access to quality educational opportunities. As well, there was general recognition of the potential for ICTs, even now, to meet the needs of some groups of women. (As an example, Samoan women studying at the Master’s level through Australian universities are able to continue to fulfil vital family and community obligations while they are studying, although it is a heavy burden). It was emphasised that providing education using the new technologies will not only help students learn but also equip them with ICT skills. As the report from Belize concludes, ICTs are perceived as a powerful tool for changing attitudes (regarding the lack of women in mathematics, science and technology), retooling for the workplace and for addressing some of the challenges currently facing the country.
Provide Equipment

The concept of telecentres to provide access to ICTs was almost universally endorsed. In some cases the centres were seen as an extension of the ODL institution. For example, the Belize report talked about the potential for collaborative use of the existing facilities of the Belize Teachers’ College, UWI and the Ministry of Education’s education centres. In other cases the centres were envisioned as being locally or community-based and often controlled directly by women. (See Ensure Relevancy above.) Some argued the need for both. The Malawi report recommended placing ICT centres in every Malawi College of Distance Education campus as well as introducing ICT centres at the community level.

The Caribbean regional meeting recommended the development of pilot media centres building on existing infrastructure. The setting up of a large centre for use by multiple users (e.g., encompassing community radio stations) would reduce costs and allow for ongoing maintenance. The Kenya report envisioned an integrated resource centre where women can learn functional literacy, reading and writing, business skills, agricultural skills, and can listen to radios, read news reports, watch television, use the telephone and gradually acquire basic computer literacy, Internet and other media skills. The Sri Lanka report recommended that community access points and telecentres should be set up all over the island. Women support staff should be made available to help women use the technology to ensure that the centres benefit women.

Some reports recommended the use of local institutions, given that there is some infrastructure, such as buildings and power, already in place. The St. Kitts and Nevis report envisioned national and community libraries as the best places to access ICTs at a community level. The Zimbabwe report recommended that rural schools be used as base stations for setting up ICT centres. Another approach was for well-equipped organisations to open their doors to the broader community. The Senegal report urged the multiplication and the decentralisation of access points using social and educational centres, telecentres, chambers of commerce and other ICT-rich institutions.

The Malaysia report was less convinced that access to equipment located outside the home would meet the needs of rural women. “Even if community centres and libraries can be equipped and mobilised to provide access, such access is limited and not convenient or even feasible, especially for women who are homebound because of family commitments and responsibilities. The use of ICTs such as the computer and the Internet may further marginalise rural women. Other ICTs such as television and radio may be better alternatives at least for now.”

Experience with telecentres from both Sri Lanka and the South Pacific provides support for examining carefully the telecentre solution. In Sri Lanka an attempt was made to solve the problem of lack of equipment through the use of regional study centres equipped with audiocassettes, videocassettes and computers. Surveys of a teacher education programme found that utilisation of the technology provided at the centres was poor for the following reasons: non-availability of transport facilities, the nature of terrain which made even walking difficult, and cultural inhibitions and household chores not permitting long hours away from home. Inherent mindsets and gender-based socialisation could also have been contributing factors.
In the South Pacific, USP provided equipment access through study centres and research found that access was still a major barrier for female students. The small number of computers was aggravated by staff use of the computers for their own work, the centres’ restricted hours and a lack of maintenance skills. As well, costs of transport to the centres were prohibitive.

Another approach to getting ICTs into the hands of women was suggested in the Ghana report. ICTs should be introduced in those professional fields dominated by women and in women-dominated workplaces (e.g., nursing, fashion design and teaching.)

If there is an overall message about the ideal way to provide equipment for women’s use of ICTs for ODL it is, “Bring the equipment to the women.”

6.3 Increase Usability

Reduce Costs

A range of recommendations were made that focused on reducing costs in order to improve the access of women to ICTs for ODL. Some Caribbean countries are trying to reduce costs of Internet access for both males and females. The Belize Telecommunications Ltd. has implemented a School Assistance programme that provides free 24-hour access to the Internet for secondary and tertiary schools. In Dominica, Cable and Wireless Ltd. has offered secondary schools and colleges free access to Internet services for 100 hours per month.

Another approach to cost reduction is to share resources, whether at the institutional level or at the local level through multi-use learning centres. The proposal came from Zimbabwe that institutions that have facilities, such as the African Virtual University, could open access to wider groups and charge nominal rates. It was recommended by several that telecentres be established and that they charge nominal fees or be free for the learners.

A Kenyan proposal was the provision of tax exemptions on modern technologies, including computers, to women’s initiatives such as telecentres and resource centres. Dominica was cited as an example of one country that has reduced the import duty on computers.

Several proposals seek to encourage women to purchase their own equipment. The Malaysia report recommends that for women who seek higher education, subsidies or rent-purchase schemes should be put in place to acquire the necessary hardware and software. The provision of loans to enable women and girls to own ICTs was also a recommendation of the Malawi report.

Address Skill Needs

There was universal support for providing training to women and girls so that they could access ICTs for ODL. In some cases, people see the training as happening through the telecentres discussed above. A Malaysian recommendation was for short training programmes to be held at community centres, local public libraries, public schools or places of worship. It was
recommended that training support include free or subsidised childcare, as well as counselling services to inform women about education and training opportunities available to them. Again, as with the cost proposals discussed above, many recommendations proposed free or subsidised training. Belize is one example of a country that offers subsidised computer-training classes for unemployed women. They recognise that under-privileged women, women in rural areas, and women with families are further hampered by childcare challenges and scheduled course times. In response, the Department of Women’s Affairs offers computer-training classes for unemployed women at a time convenient to the women.

A major emphasis was placed on the need for women to take on the role of trainer/educator. “Recruit and train local women to train others.” By training women to train others, they pass along skills and, at the same time, serve as role models. Women should be trained in such a way that they can build on their skills, and on-the-job training should be encouraged. The Kenya report recommended an approach to capacity-building “so that women’s acquisition of skills progresses from simple technologies like radio, audiocassette, television and telephone to complex technologies like computers.” They should be trained not just as users of ICTs for ODL. They should be trained in both hardware and software skills, as content developers, and as providers of user support and technical support.

The emphasis was made that training programmes must be gender appropriate. The report from Mozambique described many elements that should be included in well-designed training programmes that are sensitive to gender issues. “Avoiding interference with the demands of life is most important. For example, in rural areas the training should not take place at times when the population is busy with their own activities such as seeding or harvesting.” The Zambia report recommended user-friendly support material and plain-language manuals that are based on women’s experiences. Malawi suggested that ICT training build immediate application to women’s everyday use in business, education, shopping or when accessing information. (See Ensure Relevancy above.) In some cases the training is envisioned as being linked to the workplace.

Several recommendations focused on the need for computer training to begin in the early school years with teachers actively encouraging girls to become computer literate. The Bangladesh report recommended introducing compulsory education in computer studies at school and colleges.

The providers of ODL, themselves, are seen as needing to offer training to their own staff. The Caribbean reports stressed the need for the retraining and orientation of teachers and teacher trainers to assist them to adapt to the new educational environment. They recommended that regional training workshops be held for educators, teacher educators and educational policy makers. The Botswana paper recommended that the University of Botswana provide a comprehensive promotion of computer awareness and literacy for non-academic staff of the Centre for Continuing Education.

One challenge that needs to be considered in any campaign that addresses the provision of skill training is how to retain these skilled people in the organisation, region or country.
Provide Information and Support

Many recommendations focused on campaigns to inform women about ICTs and ODL. There is also a need to inform the broader population about the issues surrounding women’s use of ICTs for ODL. The Kenya report proposed sensitisation campaigns that would demystify technology and help women understand what technology could do for them, by relating it to their daily lives. The Guyana report referred to them as “consciousness-raising activities.” The Mozambique report recommended using the media and local talks for this purpose. The Ugandan suggestion was to conduct ICT awareness seminars and hands-on workshops. The Malaysian recommendation was to provide counselling services to inform women about the education and training opportunities available to them.

These information campaigns need to show the same gender-sensitivity as the access to ICTs themselves, and the training, as discussed above. Design gender-appropriate information campaigns. Use appropriate communications channels to reach women. Sensitise them to the issues through traditional channels.

A number of reports stressed the importance of not only providing women with information, but also combining that information with on-going support. The Malaysia report proposed social support groups to provide guidance and counselling for women engaged in ODL – and for their spouses, if they are to play a supportive role. Other reports suggested forms of support that could make learning more feasible, such as the recommendation from Malaysia to include free or subsidised childcare, or from Mozambique to create facilities in the community to reduce the workload for women so that they have time to participate in training programmes.

Once women are engaged as learners using ICTs for ODL, the need for support is critical. Research done at Indira Gandhi National Open University (IGNOU) found that many problems experienced by ODL students are common to both genders, but they become more acute in the case of women. The most severe problems were irregular and unsystematic tutorial help, inadequate supply of reading material and lack of study centres. Similar findings were made in the research into barriers to the use of ICTs faced by women students at the University of the South Pacific. The research concluded that because ODL courses require a high degree of organisation and commitment, support services in the Pacific need to be improved, especially in the regional centres.

Address Socio-Cultural Barriers

Several reports from both Africa and Asia recommend being proactive in addressing socio-cultural barriers by implementing affirmative action initiatives. The report from Malawi recommends that during an initial period of three to five years, women and girls should have access to the use of ICTs free of charge. Once access and use improves, then the free use of the facility could be removed. Also, a reduced pricing scheme for women and girls should be introduced at institutions offering ICT training, and a quota system implemented, to ensure that women and men access training in equal proportions. The Sri Lanka report recommends special workshops for women and girls, and “girl-friendly” computer labs. The report from Pakistan
recommends that AIOU offers women-specific literacy programmes in all its centres. They recommend that the centres be managed by women with provision for face-to-face support. Hostel facilities should be provided at the centres for females from distant rural regions. In addition to these suggestions, many of the strategies discussed above under Ensure Relevancy are also women-specific and affirmative action proposals.

In the Caribbean, in contrast, affirmative action is perceived as being required for men, not women. Across all of the islands, long-term education plans focus on the need to raise the participation levels and academic performances of males, as well as to attract more men into continuing education. The report from Barbados found that gender-sensitive training methodologies, materials and language are already in widespread use in distance learning programmes. Indeed, ICTs are playing a role in encouraging young women to enter science and technology-related areas of study. However, when it comes to training, it was thought that women could benefit from women-focused activities. The Caribbean paper reports that women’s organisations were democratic in their computer training and ensured that all staff received training. As a result, it was concluded that any support provided to women’s organisations for ICT training would have a greater multiplying effect.

### 6.4 Policy Development

The research emphasised the importance of integrating ICTs and gender recognition into a broad range of sectoral and regional policies. There was a clear recognition of the need to develop ICTs and gender policy at all levels – regional, national, local and sectoral. Recommendations about policy development came from all regions and ranged from the need for countries to respond to the ITU resolutions on gender and development, to the need for providers of ODL to develop policy positions on ICTs and gender. Some countries, such as Malawi, are working on development policies, including those on education and telecommunications, which are designed to raise gender awareness. Other countries, such as Pakistan, saw the need for education and telecommunications policy makers to collaborate to support women’s use of ICTs. The University of the South Pacific research that examined barriers to the use of ICTs faced by women students concluded that there is a need for policy development in a number of areas, including copyright and gender issues.

The reports from the Caribbean stressed the need for good educational policy and theory to inform the selection of appropriate technologies and the development of relevant material. User experience needs to be fed into policy development. This need was viewed as urgent since new technologies are being placed in institutions across the countries on a large scale with little or no policy informing how they will be deployed.

See the case study *Including Women in the ICT Policy of the South Pacific* for a clear example of the importance of policy development on ICTs and gender.

### 6.5 Research

The research process documented the lack of gender-specific research on women distance learners and on the barriers they face to accessing learning, including ICTs. Recommendations
came from all regions that there is a need to commission on-going research in this area. As standard practice, gender should be incorporated as a research variable in all ICTs and ODL research. Providers of ODL should routinely gather data on the status of women in their programmes.

The recommendation was made that national surveys be conducted on the needs of learners, current ICTs provision and the appropriateness of different ICTs for ODL. These surveys should be gender-specific and the data should be disaggregated by gender.

The recommendation was made that gender-specific databases about ODL and ICT be developed at all levels – local, national and regional. There is also a need to evaluate the effectiveness of the implementation of policies with respect to ICTs and gender.

There is also a need to share information about gender, ODL and ICTs, and information about successful projects in the use of ICTs for ODL should be widely disseminated.

6.6 A Portal for Information on Women and ICTs

During the course of finding and developing case studies for the second part of this report, we noted a number of women/ICT initiatives being undertaken at local and international levels, and considerable interest in the work that was being done by COL. Although some networking and collaboration was being achieved by groups, the need for a portal or network of networks dealing with women and ICTs became obvious. Although most related websites do have links, they tend to be limited, and we believe that a single point of entry as well as an updated summary of initiatives would be well valued in the community.

7.0 Selected Case Studies

In this section, we present case studies that are examples of the successful use of ICTs in a gender-related context as well as illustrate the lessons learned. Cases were chosen to illustrate different aspects of ICTs, and gender and geographical contexts. We note that the number of successful examples is on the increase, and that the individuals cited in the cases were quite positive about their experiences and were keen to share them with others.

7.1 An Open Learning Package on Small Business for Samoa

Background

Samoa is comprised of two large islands, Upolu and Savaii, and eight small islands, and has a population of 161,298 people, according to the 1991 census. In 1962, Samoa gained independence and it was the first Pacific Island to do so. Samoa has a parliamentary form of government with a 49-seat Parliament elected every five years on a universal suffrage basis.

---

4 Submitted by Dr. Emma Kruse Vaai, Academic Director, Samoa Polytechnic
Traditional structures (the matai system) remain strong and are mainly responsible for law and order, as well as the retention of strong family links – despite a high rate of migration.

After two devastating cyclones (Val and Ofa) in 1990 and 1991, many people concluded that agricultural activity was too risky and looked for other sources of livelihood. Since many lived close to the sea (and given the government thrust for an expansion in the tourism industry to earn foreign exchange), people began to look at the development of small beach fales (traditional open thatched houses) and rest room facilities to cater to tourists and locals. Associated activities rolled into place such as the selling of local produce, including fresh coconuts and fruit, and handicrafts. Travel agents began to request more services such as bigger houses which could cater for meetings, or provide accommodation and a venue for cultural entertainment for visiting groups. Most of the rural or village people who have set up these small beach houses and related services have not had any formal training in business and rely on basic common sense. However, there are some skills and knowledge that are recognised as important for development and sustainability, for better communication and for developing networks with other business people. Examples are banking transactions, loans and the use of fax machines and computers, where affordable. It is not a coincidence that many of the small business entrepreneurs operating beach fales are women. In Samoa most women are the managers of their households, especially in terms of budgeting. Women, especially if they are at home looking after the family, are also constantly looking for means to supplement their budgets (e.g., weaving mats, sewing and other home-based commercial activities). Women have responded with enthusiasm to small beach fale ventures because they are able to earn an income from their home base, rather than being required to move into the urban areas.

**Project Summary**

The Commonwealth of Learning commissioned the Open Polytechnic of New Zealand to design and develop open learning materials for small island countries, for people needing to develop entrepreneurial skills who had limited or no literacy or numeracy. The package developed is called “Learning About Small Business” and consists of an Adaptation Guide, Tutor Handbook and Participant Workbook. The Adaptation Guide takes the institution through the processes required, such as translating the Participant Workbook, and providing video, audio and visual aids for the tutor. It was decided to pilot the package in Samoa and the Samoan Polytechnic has translated the Participant Workbook and trained the tutors from various organisations who are now delivering the package to their people. The programme in Samoa targets those who have not had much formal schooling and who are not familiar with much of the business jargon and activities in a formal sense. In its pilot stages, it was found that it was mostly women who were operating in this field, and therefore the programme essentially became women-focused and women-driven.

The goal of the project is to disseminate knowledge and expertise, promote continuous community learning, and address the changing needs of Samoa. Access and equity in education is also an objective, and the open learning approach provides opportunities for women who otherwise could not access information and further education. Although many villages only had the capacity for radio, it was clear that many people were well aware of the use of video and computers, thanks to better education, and roads and transport into the urban areas. In defining
their needs, villagers requested improvement in their use of the telephone and fax machine – to allow immediate contact with urban and other areas. There was also a need expressed for knowledge in the use of computers. Video recorders were seen to be important as teaching aids to supplement presentations. Radio, being widely available, was not an issue. In remote villages with only one telephone, telephone service belonged to and was managed by the Women’s Committee. Therefore, it stood to reason that women would be the managers and guardians of ICTs if they were made available to remote villages.

The pilot project utilised social and government structures already in place such as women’s committees, the agricultural extension officers, National Council of Women, Department of Women’s Affairs, and the Department of Youth, Sports and Culture. These groups were already familiar with village members, therefore facilitation of the pilot process was improved. The course materials were in both English and Samoan.

**Key Results**

The pilot showed the importance of women in management and demonstrated that improved communication and knowledge of ICTs is crucial to their success. In the pilot the women identified the youth as another group at risk, and emphasised the importance of providing them with skills in ICTs so they would not be left behind. The use of open learning provides a second chance for youth dropouts, and through the use of radio, video and computers, education can become much more widely accessible, not just for teaching small business skills, but to bridge the wide gaps that exist in formal education.

As a result of this project, Samoa Polytechnic officially established a Distance Learning Team and looks forward to developing a Distance Learning Centre. Five staff members, two of them women, are now doing distance education studies in the Master of Arts in Distance Education programme offered by the Indira Gandhi National Open University in Delhi, India. There is a demonstrated need to have training in distance education and part of this training will also enhance their knowledge and skills of ICTs. Qualifications and skills in this area mean that Samoa Polytechnic’s community outreach can be enhanced to address technical and vocational education needs nationwide.

**Lessons Learned**

Language is important. Although this fact was known, it was further emphasised in the piloting. The course materials and the language of communication were crucial in establishing a rapport between instructors and learners at the initial stages. Even when people spoke or understood English, the dominant language of social exchange and instruction/information was Samoan.

In consulting with women throughout a project such as this, they will not keep to strict agendas as such but will identify and reveal the complexities of an issue according to their own worldview. This can be seen as a complication but, in fact, it grounds the process and applies a reality check.
The main barrier to access to ICTs remains financial. There are no cultural or social barriers against women using ICTs. The exception would be certain outside influences that may be deemed unwanted (e.g., in video or music), and certain ideas which are taken on by some (usually the youth), and are not welcomed by the older generation.

ICTs are important not only for education and business enterprises, but also as a domestic tool. For example, computers are used for writing letters, keeping records and drawing up family trees. People in the village search for word processors to prepare documents for lands and titles cases, as well as for lineages. Women want to learn how to use computers not just for their businesses, but also for record keeping and personal development, and more importantly, so that they “can help their children become competent in the use of computers.” Thus there is no technophobia since the benefits are wide-reaching and quite obvious.

With the proper use of the Internet, much-needed educational resources for parents, teachers and students, from the elementary to tertiary level, can be accessed. Already it is clear that those with financial means have access to ICTs and have a clear advantage. The lack of ICTs in rural areas highlights the disadvantage that rural-dwelling people have when attempting to access information. History repeats itself in ICTs – as with books – computers will only be purchased after basic needs are met, and computers cost considerably more than books.

Radio remains the most-used ICT in the rural areas and its popularity may stem from the fact that a radio transmission can cater to more than one person, whereas reading and computers are essentially individual. Video is similar to radio, but without the censorship and monitoring that exists with radio. Violent and inappropriate videos have been identified more often as the cause for social ills than the positive educational tool they could be. Women expressed the concern that computers with Internet access can also fall into the same category as videos. With the establishment of support centres in the rural areas built by the Women’s Committee foundation, it is likely that the use of computers can be monitored so that they are put to good educational use.

7.2 Exploring the Gender Impact of The World Links Program

Background

World Links is a global learning network linking thousands of students and teachers around the world via the Internet for collaborative projects and integration of technology into learning. The core “value-added” of World Links is its training programme, designed to help teachers and students learn to use information and communication technologies (particularly the Internet) to improve teaching and learning (www.world-links.org).

World Links commissioned a gender assessment study in 2001 aimed at determining if and how girls and boys are being impacted differently by the program. Funding for this study was made possible through the World Bank’s Development Grant Facility. The research was conducted by

---

5 Submitted by Dr. Coumba Mar Gadio – This case study used with permission of Sam Carlson, Program Director, the World Links Program www.world-links.org.
Dr. Coumba Mar Gadio and focused on male and female students in four African countries: Senegal, Mauritania, Uganda and Ghana.

The objectives of the study were:

- To explore the factors contributing to increased gender equity in accessing computers provided by World Links;
- To clarify the factors that explain girls’ improved communication and reasoning skills;
- To investigate the factors related to girls’ improved technological skills and attitudes;
- To provide a better understanding of the increased participation of girls in the program;
- To make recommendations for the promotion of gender equity in computer access for policy makers and development agencies working in the field of gender and education.

**Scope, Sample, Methodology and Research Design**

Qualitative data was collected primarily through original, semi-structured, in-depth interviews of female/male students/teachers. These focus groups were supplemented by interviews with local school administrators for purposes of comparison. In each country a selective sample of five World Links schools was drawn, with four teachers (two males and two females), ten female and five male students selected from each school. This process yielded a sample of 95 respondents (20 teachers and 75 students) per country, and 380 respondents for the study as a whole.

The study used an innovative approach that combined multiple sociological methods. Varying research methods helped place events and perceptions in a broader context and tease out possible alternative relationships by contrasting the researcher’s expectations with students’ and teachers’ experiences and perceptions.

**Key Results**

The evaluation of World Links’ impact on girls and boys in the studied countries revealed that:

- In areas such as improved academic results and communication skills, girls have benefited more, while in the area of technological skills boys have benefited more.
- In areas such as knowledge about other cultures and attitudes about school, the impact of the programme is tremendous and is the same for boys as well as for girls.
- Even though much progress has been made in terms of gender equity in the programme overall, in some schools visited in Uganda and Ghana girls do not enjoy equitable access to the computer labs.
A variety of economic, organisational and socio-cultural factors explain this inequitable access. High student-to-computer ratios and first come-first serve policies do not favour girls (typically heavily outnumbered by boys at the secondary level), girls have earlier curfew hours and domestic chore responsibilities which limit their access time, and local patriarchal beliefs tend to allow boys to dominate the computer lab environment.

Some key specific findings are illustrated in the table below:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Differences</th>
<th>Similarities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>While all students and teachers interviewed stressed that in principle there is no visible discrimination between boys and girls as far as accessing World Links computers is concerned, in reality it is harder for girls to access the computer labs, particularly in Uganda and Ghana. The limited number of computers per school (about 10 computers) constitutes a real obstacle for girls to access the technology which, according to them “are controlled by boys” who outnumber them significantly. Socio-cultural considerations, such as “girls do not run,” hamper girls from competing with boys to reach the computer labs that operate on a first come-first serve basis; earlier curfew hours for girls further constrain them. Traditional roles bestowed on girls, such as cooking and cleaning, means they have less time than boys to use the computer labs.</td>
<td>An estimated 90% of the total sample of interviews conducted in Mauritania and Senegal reveal that there is ample agreement on the fact that access to the technology is not an issue for boys and girls. About 70% of girls interviewed in Senegal and 60% of girls in Mauritania emphasise they do not feel discriminated with respect to access. The main constraints related to access to computers lay on the limited access experienced by boys as well as girls: poor telecommunications.</td>
</tr>
<tr>
<td>Activities</td>
<td>Girls focus most of their activities on academic issues, while spending some of their time communicating with friends and relatives out of their countries. Research for information that is banned or constitutes taboo in their cultures seems to be a major activity that girls perform once online. For some, the Internet represents a “safe partner” with whom one can communicate discreetly, a partner “that can provide us with the information we need to adapt to this modern world.” Seventy percent of girls in Mauritania put emphasis on the fact that the Internet provides freedom to them as women since they no longer need to limit themselves to the controlled information given by their society and families. Contrarily to girls, almost 90% of boys interviewed in all countries confessed that in addition to using the Internet for academic purposes such as research, most of the time, they access music and sports sites.</td>
<td>As teenagers, 100% of girls and boys participating in the programme consider the programme as a great provider of the necessary information to prevent teen problems such as sexually transmissible diseases, teen pregnancies and to learn more about health issues such as AIDS and its prevention.</td>
</tr>
<tr>
<td>Impact</td>
<td>The learning outcomes seem to be greater for girls since they tend to focus more on academic-related issues rather than on leisure once they connect to the Internet. The data suggest that girls “communication and reasoning skills seem to be more impacted than boys.”</td>
<td>One hundred percent of girls and boys interviewed in all schools seem to enjoy and equally benefit from the programme on areas related to their learning about other cultures and their attitudes about school.</td>
</tr>
</tbody>
</table>
Recommendations and Lessons Learned

- Encourage/incentivise schools to develop “fair use policies” for their computer labs, which would ensure girls’ access proportional to their representation in the overall student body.

- Organise awareness sessions on gender and development, in order to lift obstacles linked to traditional beliefs and practices that constitute barriers to girls’ education.

- Develop new policies, particularly in boarding schools, to relieve girls from household chores that they perform during evenings while male students enjoy more lab time.

Quotes from female World Links participants:

“We get our freedom from the Internet, since in our society girls are not allowed to go wherever we want … the Internet takes us out to other people, places and realities … it is our way of escaping from our closed society. It is vital to us, it gives us liberty.” (Mauritania)

“Our teachers, because of our participation in collaborative projects and Internet access, have to do a better job. They carefully prepare their lessons before coming to class. We challenge them; we are no longer passive receivers of information. We analyse and question things. Their quality of teaching has been improving a great deal.” (Senegal)

“Our self-esteem has really improved because of the World Links programme. Now we can rub shoulders with boys that want to step on our toes. We walk with our chests out! Anytime we are confronted with questions we feel confident answering, even with older people we come boldly!” (Ghana)

“We are no longer dependent on boys. We feel capable of solving our problems with great autonomy … that is powerful. It makes us very proud.” (Senegal)

7.3 Grameen Telecom’s Village Phone Programme in Rural Bangladesh

Background

This project was originally presented to The Commonwealth of Learning at its 1998 conference in New Delhi by Ms. Nazneen Sultana of Grameen Communications. The current case study is a summary of the project’s final report in 2000. The full report can be obtained at www.telecommons.com/villagephone/finalreport.pdf. Streaming video of the project can also be obtained at www.telecommons.com/villagephone/VPvideo.html.

---

6 This case study used with permission of Don Richardson, TeleCommons Development Group (www.telecommons.com).
Project Summary

GrameenPhone is a commercial operation providing cellular services in both urban and rural areas of Bangladesh, with approximately 40,000 customers. A pilot programme of GrameenPhone, through the Grameen Bank and a wholly owned subsidiary called Grameen Telecom, is enabling women members of the Grameen Bank’s revolving credit system to retail cellular phone services in rural areas. This pilot project currently involves 950 Village Phones providing telephone access to more than 65,000 people. Village women access micro-credit to acquire digital GSM cellular phones and subsequently re-sell phone calls and phone services within their villages. Grameen Telecom staff have announced that when its programme is complete, 40,000 Village Phone operators will be employed for a combined net income of US $24 million per annum.

In rural areas where isolation and poor infrastructure services are often the norm, telecommunications can play an extremely important role in enhancing rural social and economic development. Grameen Telecom’s Village Phone programme provides an excellent opportunity to learn more about how private sector development (PSD) in the telecom sector can make a significant contribution to poverty reduction. The Village Phone programme also provides an opportunity to review innovative strategies for incorporating targeted, micro-level PSD in the telecom sector within project design.

Documentation of the impacts of Grameen Telecom’s Village Phone programme and its innovative approach to poverty reduction provide valuable learning and case study materials that can contribute to strategies for improved success in poverty reduction.

Key Results

Impacts on poverty reduction

- The Village Phone programme yields significant positive social and economic impacts, including relatively large consumer surplus and immeasurable quality-of-life benefits. The consumer surplus for a single phone call from a village to Dhaka, a call that replaces a physical trip to the city, ranges from 2.64% to 9.8% of mean monthly household income. The cost of a trip to the city ranges from two to eight times the cost of a single phone call, meaning real savings for poor rural people of between 132 to 490 Taka (US $2.70 to US $10) for individual calls.

- The main reasons Grameen Bank members reported for using the telephone are discussions of financial matters with family, including discussions of remittances (42%) and social calls to family and friends (44%), accounting for 86% of all calls. Bangladesh is a labour-exporting country with many rural villagers (predominantly men) working in the Gulf States. The Village Phone acts as a powerful instrument to reduce the risk involved in remittance transfers, and to assist villagers in obtaining accurate information about foreign currency exchange rates. Transferring cash from a Gulf State to a rural village in Bangladesh is fraught with risks; remittances are thus a key factor in demand for telephone use.
• Reducing the risk of remittance transfers from overseas workers has important micro-implications for rural households and villages. At the micro level, remittances tend to be used for daily household expenses such as food, clothing and health care. Remittances are thus an important factor in meeting household subsistence needs, and can make up a significant portion of household income. Remittance funds are also spent on capital items including building or improving housing, buying cattle or land and buying consumer goods such as portable tape/CD players and televisions. Once subsistence needs are met, remittances tend to be used for “productive investments,” or for savings.

• Social calls to family and friends frequently involve transfer of information about market prices, market trends and currency exchange rates, making the Village Phone an important tool for enabling household enterprises to take advantage of market information to increase profits and reduce productive expenses.

• The income that Village Phone operators derive from the Village Phone is about 24% of the household income on average – and in some cases it was as high as 40% of the household income – and Village Phone operators become socially and economically empowered.

Analysis of the business case, technical choices and regulatory context

• Rural telephone service in Bangladesh is very profitable and, due to the existing regulatory environment, telecom operators are unable to meet the demand for services. Telephones in the Grameen Telecom Village Phone programme bring in three times as much revenue as urban cellular phones (an average of US $100/month versus US $30/month). One competing telecom operator reports having revenue from 12,000 urban cellular lines equal its revenue from 1,500 rural PCO lines.

• The Village Phone programme appears to be the best available technical solution for rural universal access under current regulatory and commercial circumstances. The Village Phone programme is a technical and organisational solution to rural telecommunication access partly necessitated by a regulatory environment that is not conducive to advancing rural telecommunication infrastructure.

• GSM cell phone technology is a high-cost solution for universal access in rural areas. Limited cellular coverage of rural areas may only be viable under the current set of cumbersome regulatory practices – once the regulatory environment improves, cellular phone technology may not be the most viable and efficient means of providing universal service. GSM cell phone technology also places much higher tariffs on rural phone users than would be the case for wireless local loop (WLL) technologies. Without regulatory improvements, cellular technology is a practical solution. As well, cellular phone technology is currently not a viable option for inexpensive e-mail/Internet/data connectivity. WLL and other options can provide much better bandwidth and cost of service.
Gender Analysis

- The Village Phone programme raised, perhaps for the first time, the important issue of gender when considering goals of universal telecommunication access.

- The concept of “universal access” is not gender neutral. In the case of Bangladesh, the gender of the Village Phone operator and the physical placement of the phone within a gendered village context can either inhibit or improve women’s access to phones. A woman’s home provides a space that is acceptable for other village women to access. From the standpoint of revenue generation and profitability, it is important to ensure that the Village Phone is fully accessible to the entire village population: if 50% of the user base faces obstacles to phone use, then a significant revenue stream is lost.

Recommendations and Lessons Learned

- The Grameen Telecom experience in business planning lead the review team to suggest one potential solution for attracting telecom operators to serve rural areas: target unserved and under-served regions and provide support for acquisition of quality market appraisal knowledge and market data through market research in the field. Market research will help to prove the business case, attract investment capital and reduce the effort required by investors and operators.

- The Grameen Telecom experience points to a potential solution for telecom operators facing the significant challenge of managing the last mile of rural telecom operations: link existing and successful micro-credit organisations with telecom operators (fixed line and/or wireless) to expand public call office (PCO) coverage in rural areas. Small loans to rural entrepreneurs (perhaps targeted to women and youth) can enable entrepreneurs to establish PCOs and provide a range of services including telephone, fax, e-mail and even Web, photocopying and computer word-processing services. A franchise programme of this sort would also establish consistency of service across a region that would, in turn, support local social and economic development.

7.4 International Women’s University and the South Pacific Telehealth Project

Background

In 2000, 15 female postgraduate students formed a Project Group on Virtual Community to provide advice to the South Pacific Telehealth Project. Their work was under the auspices of the International Women’s University, University of Hamburg – the first and, so far, only gender-specific university of its kind in Europe. The international university is interdisciplinary in scope and methodology of academic work, and intercultural across all political borders as well as ethnic and religious divides.

---

7 Submitted by Dr. Esther Williams, Laucala Campus, The University of the South Pacific
The Group consisted of multi-disciplinary experts in the areas of health, technology, education and the arts. Their task was to define virtual communities and to understand their conditions and how to build them and make them liveable. They were given three months to examine theory and current research, while offering insights and experience to the Telehealth steering committee of the South Pacific Telehealth Project.

The Group focused its work on the Fiji School of Medicine (FSM), which has a telehealth network providing online continuing health education and consultation otherwise unavailable to doctors in remote areas throughout the Pacific Islands. The FSM website offers a wealth of information to physicians and allows them to service patients more effectively, however, it needed to be expanded to include distance education and health information.

The Group evaluated the website, as well as the FSM telehealth project funding proposal. Their critique included proposed changes to the structure and content of the website. They proposed that more people in health in the Pacific region be included in the project to make the web space useful and available, not only to doctors but also to midwives, nurses, allied health professionals, traditional healers and community health workers. In the long term, it was seen desirable that the website be accessible for the public. Content recommendations included sections on women’s and children’s health, education, health news and promotion, as well as a number of links to health sites focusing on women.

With regard to the telehealth project as a whole, the Group recommended a broader, more diverse and inclusive vision. It noted the heavily bio-medical model oriented view of health and the exclusion of other health modes such as traditional health practices, community and preventative health services. In addition, the concept of the three approaches (distance consultation, distance learning and distance information services) were holistic, but in the proposal, distance learning and information required further development. They recommended that the concept of a virtual community be expanded to one that is diverse and representative of all health care providers and multiple health issues. They strongly recommended that the project be more inclusive of women’s health and women’s rights, and actively seek women’s opinions and guidance in the development of the project.

Key Results

The final project report includes research and information that may be useful for the further development of the Telehealth Project, questions to stimulate discussions and recommendations. In addition, the Group developed a prototype interactive website, which they offered as a pattern that could be expanded to meet the future needs of the users. The goal is that, out of this project, other telehealth projects similar to the one for the South Pacific will be developed.

Recommendations were made to ensure women’s involvement in future projects. For example, one concern noted by the Group was the gender bias in the Telehealth team, which consists of experts in the field of medicine, technology and development. Out of the 34 people designated as participants and observers who steer the project, only eight are women and seven of them are designated observer status. The Group noted the obvious need for key stakeholders from areas of expertise such as medicine and technology, as well as strong supporters in the development
field. It was less clear why there were no allied health professionals, nurses, midwives and few non-government organisations.

The Group also concluded from viewing the Telehealth proposal and other documents that gender and health had not been considered. They recommended introducing the theme of women’s health in a broader context than simply gynaecology and obstetrics, and expanding into a socio-medical view of health. Topics should be included such as family planning, maternal mortality, abortion, sexually transmitted diseases, communicable diseases, access to health care, young people’s reproductive health, health and sexual orientation, men’s reproductive health needs, violence against women, mental health, child health and partnerships for reproductive health.

Recommendations included the following:

- The Steering Committee and the Co-ordinating Unit should be gender balanced with more input from women leaders in their field.
- A variety of communication media should be used where these are available and not be limited by the lack of access. This is responding to the need to expand the target groups and not limit the service to doctors and the professionals.
- The employment of a person with community development skills would be beneficial.
- The inclusion of not only professional women who are experts in their field but also women who represent the potential patients and female community leaders to assist in the vision making of the Telehealth project.
- Issues such as family planning, maternal mortality, abortion, men’s health, child health, violence against women and women’s rights need to have representation within the Telehealth project.

The Group also supported strongly the importance of education and training within the project, particularly by distance learning mode. They recommended that FSM develop appropriate curriculum modules developed from existing programmes and courses available from other institutions, using three modes. Some institutions in the region are using print material to reach the student by normal post. Teaching over the satellite using multimedia is popular and can be expanded. FSM hopes to involve and take advantage of the University of the South Pacific’s facilities and organisation. The third mode is Internet teaching, which provides a good alternative for the Fiji School of Medicine in developing a cadre of professional doctors. The Schools of Nursing and Midwifery may also see the potential in participating in distance learning. In saying this, the Group was mindful that this approach would cost money, need sufficient and trained instructors and supervisors, a collection of reference materials and access to useful and relevant medical information and Internet links.

**Lessons Learned**

Telehealth is a very important development in the Pacific region where distance is a barrier to medical consultations, medical experts and advisory services. ICTs will help enable people in the countries of small Pacific island states, particularly those in rural areas where there is access to ICTs, to access the best medical services possible.
There are concerns over the costs of equipment and telecommunication lines and space. The Steering Committee has all the CEOs of the participating countries as members. Collectively and by collaboration, they should have the power to decide on costs of telecommunication links for all aspects of health.

To ensure that the Telehealth network continues, there must be trained and skilled people in information and communication technology as well as information at all levels, from specialist to technician. There is a need for people with a crossover of skills such as health professionals who are trained in informatics and community development.

Already people can access health advisory services on the Internet, but people must know where to go, how to access the good sites and how to use these with confidence. ICTs and health sites are very male dominant. There is increasing need to provide telehealth services focusing on women.

### 7.5 Online Conference: Information Access for Rural Women

#### Background

In June 2002, an online conference on the theme of “Information Access for Rural Women” was hosted by Women of Uganda Network (WOUGNET) to contribute to the deliberations on Rural Women and Telecentres during the Kampala Know How Conference 2002. The Know How Conference is an international conference of specialists in the collection and dissemination of information relevant to women.

The online conference Information Access for Rural Women was organised with the support of a number of individuals and organisations. For example, ENDA SYNFEV (Synergy Gender and Development) from Senegal facilitated access to the conference for francophone participants, and a number of volunteers were obtained via NetAid.org and Idealist.org.

WOUGNET is a non-governmental organisation established in May 2000 by several women’s organisations in Uganda with the goal of promoting the use of ICTs among women as tools to share information and address issues collectively. Since its inception, WOUGNET has gradually expanded to include over 100 members, a mailing list, a monthly e-mail newsletter and a website - http://www.wougnet.org/. The organisation is continuously searching for new opportunities to promote the sharing of information and experience among women in Uganda and abroad.

#### Online Conference Summary

The purpose of the online conference was to facilitate the exchange of ideas and experiences on enhancing access to information for rural women. The themes for the online discussion were

---

8 Submitted by Dorothy Okello, dokello@wougnet.org, Coordinator, WOUGNET
9 [http://www.isis.or.ug/knowhow](http://www.isis.or.ug/knowhow)
10 [www.wougnet.org/Events/iarw.html](http://www.wougnet.org/Events/iarw.html)
formulated on the basis that needs for information in rural areas are just as critical as they are in urban areas. Issues related to rural areas are only part of the challenge; gender-specific issues faced by rural women need to be addressed as well.

Participation in the online conference was by e-mail and open to individuals and organisations from around the world. As many as 264 participants were involved, of which approximately 80% were female and 20% male. Participants were able to contribute messages in any of three languages: French, Spanish or English. Fifty-three countries were represented from Asia, Latin America, North America, Europe and Africa.

Specific themes were chosen to guide the discussions for each week. The first week began with broad questions about the role of ICTs for rural women. For the second week, the focus was on exploring the challenges and difficulties involved in making ICTs available and accessible to women in rural areas, and finally for the third week, the conference wrapped up with discussions on lessons learned, best practices and recommendations.

A summary was prepared at the end of each week to synthesise the week’s contributions and facilitate the discussions for the following week. The three summaries and additional information about the conference are available at http://www.wougnet.org/Events/iarw.html.

**Key Results**

This section is a summary of contributions made by conference participants during the three-week conference.

**Information access for rural women**

- Exchanging knowledge within and beyond rural communities
  1. Women are in constant communication with each other at household and community level.
  2. Women’s indigenous knowledge is often neglected or dismissed as unimportant yet their survival strategies are key to their communities’ development.
  3. Local community leaders can serve as interpreters/transmitters of critical information within the community.
  4. Patriarchal structures discourage women from participating in initiatives beyond the household.

- Information needs and access for rural women
  1. Women need information about issues that are relevant to their lives, about childcare, health, economic issues, community programmes, etc.
  2. Information programmes need to involve women in defining purpose, content and delivery of information to ensure that they are appropriate and practical.
  3. Are ICTs appropriate and feasible in areas where people are lacking even the most basic amenities, such as water, health care and food, or where the infrastructure, such as
electricity, is unavailable? Some participants supported the argument that ICTs may not be appropriate, while others emphasised that rural women are interested in having access to information and should not be denied opportunities that others take for granted.

4. Accent should be on the word “communication” – technology is only a means to meet the information needs.

5. Technologies can be combined as appropriate, video, radio, Internet, print, drama, mobile phones, CD-ROMs, etc.

Challenges in setting up and maintaining rural information centres (RICs)

- Most examples of rural information programmes or centres involved the use of radio. Other examples included school-based telecentres and the use of CD-ROMs.

- Common challenges with rural information centres include poverty and thus the community being unable to afford the centre’s services; limited resources resulting in poor infrastructure; low literacy levels; cultural perceptions of women’s roles; urban bias in development that marginalises rural communities; little or no government support; and war, instability or conflict.

- Essential conditions for setting up and maintaining RICs

  1. Provide most appropriate tools for “information dissemination and communication.” One project showed videos at night because of the projector equipment used: result – no women showed up.

  2. Start from bottom-up. Radio listening clubs in Kano have so empowered the women that they are now examining other means of communication.

  3. Account for constraints on gender and create opportunities for positive change. Involve men as partners, use local language, use measures sensitive to women’s needs and situation.

  4. Ensure “ownership” and sustainability. Integrate RIC into an already existing programme or services, introduce income-generating activity as part of RIC, train local people to manage the projects.

  5. Government should be involved in facilitating access to resources and opportunities. Example at regulatory level: Uganda recently waiving VAT taxes on computers.

Lessons learned and recommendations

- Community participation and involvement, right from the conceptualisation and in continuous monitoring and evaluation of RICs, is key to ensure local ownership, relevance to the community and the motivation of local people. These will be crucial for the sustainability of RICs.

- A need-based approach, adapted to local needs, and especially designed to arouse the interest of women, such as discussion groups about questions faced by women in their daily lives. Programmes that can reduce user fees and lighten women’s work burden will also encourage women’s participation in RICs.
• A conducive policy environment including the regulation of tax and tariffs on electricity, energy and telecommunications, and a regulatory regime regarding pornography.

• RICs should be a space for promoting dialogue rather than simply one-way communication to rural women.

Lessons Learned – Online Conferencing

The online conference was itself an example of the role of ICTs in supporting information access by rural women. In the words of one participant, the conference e-mail list “(made) it possible for people all over the world to discuss and share their views on ways of developing our rural areas using ICTs.” In the words of another: “We took these ideas and challenges brought in this conference, as a reference in our effort now to sensitize our communities in establishing RICs. On behalf of rural women, I request you all to continue offering us your good ideas, and myself and my colleagues shall continue to give feedback on what we are trying to do and our progress or challenges.”

It was also an opportunity for networking. As one participant noted: “It is wonderful to know that I am not working in a vacuum as I thought before. ... Now I know that there are others that face the same difficulties that my project has.”

It should be noted that for some participants, connectivity was an issue for their participation. As one participant indicated: “I will send the next contributions towards the end of the conference because of the limited access to connection.”

All guidance on the use of the e-mail conference was provided via e-mail. Aside from the connectivity issue discussed above, participants seemed to have minimal difficulty using the technology. Participants received a welcome message that included information about which address posts should be sent to, as well as general guidelines for participation. For example, participants were informed that they could receive regular or digest messages. They were also provided with an address to contact in case they had any trouble with their participation in the conference. Participants did use this address, but only to request the digest service.

Indeed as noted by a number of participants, while the conference was an effective and economical means of getting a good variety of participants and contributions, more needs to be done to get more contributions from rural women themselves and from grassroots communities.

7.6 Including Women in the ICT Policy of the South Pacific

Background

This case study describes the development of an ICT Policy and Action Plan that makes explicit reference to women and was developed by and for 22 island countries and territories of the South Pacific region. The process was carried out by the Pacific Island Forum, the institution charged to co-ordinate the development activities of the South Pacific region. Working groups of the

11 Submitted by Dr. Esther Williams, Lautoka Campus, The University of the South Pacific
Forum deal with all pressing and development issues that need a regional approach, and in 1995 a working group was established on ICTs. A process was implemented to review needs and establish a strategic plan, which included a feasibility study and a regional workshop in August 2001.

In April 2002, the Pacific Islands ICT Policy and Strategic Plan was adopted by the Ministers of Communications of the Forum member countries. The work was led by the Council of Regional Organisations of the Pacific ICT Working Group, comprised of the Forum Fisheries Agency, Pacific Islands Development Programme, Pacific Islands Forum Secretariat, South Pacific Applied Geoscience Commission, Secretariat of the Pacific Community, South Pacific Regional Environmental Programme, South Pacific Tourism Organisation, and the University of the South Pacific, along with international development partners.

In the past five years, ICTs have entered the South Pacific region in a big way. The Pacific is a very large geographical region with many small islands scattered over 30 million square kilometres of ocean. The total population of this region is about six million people, with over four million residing in Papua New Guinea. Women make up about half the total population of the region. Yet they control, hold and determine far less than 50% of the total assets and economies of the countries. The range of literacy and education of men and women is also great. Even within one country, and within one locality, the difference in the ICT skills of the people and the ability to access ICTs, particularly computers, is extensive.

Computers are finding their way into learning institutions and schools, government and the private sector. In many organisations, ICTs have penetrated the work and learning environments in an unplanned manner. Many governments and users recognise that ICTs and their rapid development and convergence will provide opportunities and challenges for Pacific island countries particularly in economic and social development, where distance and traditional systems have tended to hamper progress. ICTs are seen as particularly useful in improving the lives of young people and those residing in areas where there is currently no access to ICTs.

**Project Summary**

The vision of the policy is “Information and Communication Technologies for every Pacific Islander.” The policy is intended to provide guidance at two levels. On matters where regional co-operation is required, it is intended to be taken as a mandate to regional organisations. On matters where national action is required, it is intended to be interpreted as guidance for national consideration.

The anticipated outcome is that improvements in telecommunications services and information technology will provide increasing opportunities for:

- reducing barriers of distance;
- improving service delivery across countries and the Pacific Community;
- reducing costs;
- improving the knowledge, skills and general development of their people;
- maximising the economic growth of their countries and the Pacific Community; and
• working more effectively together.

It is understood that co-operation will be essential to fully realise these benefits. Leadership from governments, and partnerships with businesses, non-government organisations (NGOs), religious groups and the community at large will be required to facilitate participation in the knowledge society and to make their countries part of the global knowledge economy.

Governments will also need to provide special attention to protect the social, cultural and ethnic diversity of the Pacific Community.

The policy has four guiding principles on human resources:

• infrastructure development;
• co-operation between stakeholders;
• appropriate policy; and
• regulation.

For each guiding principle there are stated policies, intended to set the rules by which specific strategies and actions will be designed to achieve the goals. They are long-term, but may be reviewed and changed every three to five years if necessary. The regional strategic plan consists of strategies for each policy, intended as the general means by which the goals will be reached. They are medium-term, but may be reviewed and changed on a one-to-three year cycle as required. Activities under each strategy are the specific means by which strategies are implemented. They are to be monitored continually and modified annually if needed. Each activity has an identified actor(s) and a proposed time line or milestone.

The issue of women and ICTs is covered in Guiding Principle 1: Human Resources – “ICT will be used to inform and connect Pacific Island populations and ensure that they benefit from flexible and appropriate education and training.” Policy 1.4 reads: “Everyone will have equal opportunity access to ICT without barriers with special regard to women, the disadvantaged, the disabled, under represented minorities, and those in rural and remote communities.”

**Key Results**

The policy is very new and it is now up to the countries to put the policy into action, including producing national ICT policies, as well as an Action Plan.

In adopting the policy, the Ministers agreed to the following:

• Adopt the Pacific Islands ICT Policy and Action Plan.
• Direct the members of the Working Group, in consultation with member countries, to conduct regular reviews and updating of the Plan.
• Continue and renew efforts on data collection and provide accurate information on ICT in the region.
• Continue dissemination and information sharing on ICT developments.
Women and ICTs: Strategies and Experiences from the Commonwealth

• Support the creation of a clearinghouse for greater co-operation in communication regulations.
• Monitor developments and disseminate information from ICANN and its Government Advisory Committee.

Lessons Learned

The explicit reference to women in the policy ensures that there will be a systematic effort to develop strategies and activities that focus specifically on the needs of women. Evaluation activities, including data collection, will also be mandated to have a deliberate focus on the impact on women.

However, in future policy development it is recommended that women be given a separate category of their own. The current policy groups women with “the disadvantaged, the disabled, under represented minorities, and those in rural and remote communities.”

This project shows that in small island states, much can be achieved by working together to develop a policy on ICTs and other development issues. For the inclusion of women’s interests, it is always necessary to have the involvement of women, and ensure that women are represented on the decision making and policy-making bodies from the very beginning. Then, ensure that in any reviews and monitoring that women’s issues are heard and are included in all policies.

7.7 Interactive Radio Instruction in Zambia

Background

The Interactive Radio Instruction (IRI) project is run by the Department of Educational Broadcasting Services (EBS) under the Zambian Ministry of Education. The project was developed to increase access to education and to provide out-of-school children with a chance to return to school.

The project is a response to the findings that many children are not going to school or have left the formal educational system for a number of reasons, including:

• non-affordability of school fees,
• failing the national qualifying examinations,
• parental deaths,
• pregnancies,
• loss of interest,
• distance from school, and
• lack of school places.

Submitted by Dr. Mildred Nkolola-Wakumelo, University of Zambia, with statistics from the Department of Educational Broadcasting Services.
Strategies

The IRI project broadcasts lessons over the radio to learners in IRI centres. The audiotapes are produced at the EBS studio and broadcast by various radio stations. The Zambia National Broadcasting Corporation (ZNBC) broadcasts the lessons in Lusaka and surrounding areas, and community radio stations broadcast them in outlying areas. The programme uses either wind-up radios (which do not require batteries) provided to the centres by the Ministry of Education or ordinary radios donated to the centres by the communities.

The IRI programme uses an interactive approach, unlike previous educational radio programmes run by EBS that were non-interactive. Children (whose ages range from 8 to 10 years), are organised into listening groups that meet at IRI centres under the guidance of a mentor. The mentor uses a prepared mentor’s guide to follow the lessons with the pupils while the lessons are being broadcast. The mentors are either Grade 9 or Grade 12 school leavers who have been trained by qualified staff recruited by EBS management. Each mentor is expected to train another member of the community on-the-job to be their assistant mentor. The assistant mentor takes charge of the centre in the event that the mentor is not available. In addition to guiding the lesson during the broadcast, the mentor is expected to mark the radio homework given to the children after each broadcast. Since the mentor is the strong link between the radio teacher in the studio and the children at the centre, his or her role is extremely important.

The communities in which IRI centres are established are expected to help support the mentors financially or provide material support in the form of food and groceries. In some cases, this is done through IRI committees formed by the communities to oversee the activities at the centres and to mobilise support for the mentors.

The syllabus used in the IRI programme is the same as the one for the formal education system, however it is completed in half the time. This means that children complete two grade levels within one year. Last year the programme offered Grade 1 and 2 classes. These children have now moved to Grade 4, having done their Grade 3 during the first half of 2002. The compression of the normal school year has been possible because the IRI teacher/mentor is continuously giving work to the children during the course of the broadcast. In addition, children have to come to the centre about 30 minutes before the broadcast to recap the previous day’s work. After the broadcast the children remain at the centre for another 30 minutes to do exercises with the mentor. In addition, during the broadcast there is to be no disturbance, since the children’s understanding of the lesson depends on the broadcast. In contrast, in the formal education system, the three hours per day allocated for learning in the lower primary classes cannot all be utilised for learning due to the high levels of disturbances. However, as the children move to higher primary school grades (Grade 5 and 6) the IRI programme will be extended to one year for each grade. This reflects the nature of the work involved for higher primary grades, which is more demanding for both the mentor and the children, as they start preparations for the Primary School Leaving Examination.
Key Results

The demand for education at the centres is high, as seen both from the number of centres that have opened since the programme was launched and the current enrolment figures. At the beginning of 2000, when the programme was initially evaluated, there were 28 centres in selected areas. There are now 1,153 centres throughout the country. The total attendance was 841 students when the programme was initially evaluated. By 2001, that figure had reached 7,782.

As well as achieving its objective of making education generally more accessible, the IRI has made education more accessible to girls and women. For the year 2001, females comprised 48.68% of the total IRI enrolment. In contrast, girls represented 45.2% of the total enrolment for Grades 1 to 7 in the same year in the other education programmes offered by the Ministry of Education (both formal and informal and excluding IRI). For a programme that was only fully implemented two years ago, this is a significant achievement in terms of enrolment figures for girls.

After seeing the immediate educational benefits from the official centres in their neighbourhood, some communities have spontaneously and voluntarily started up IRI centres. This is a clear indication that these communities want education for their children. In some instances adults have seen the benefits of education from what their children are learning and they want to benefit from the programme themselves. In two such IRI centres, these adults, who never had the opportunity to go to school while they were young, have enrolled in literacy classes and go through the same learning process and cover the same syllabus as their children. Their ages range from 17 to 51 years.

Two such outstanding IRI literacy centres are Cheelo in the Monze District of the Southern Province and Chimbwete B Centre in the Chongwe District of Lusaka Province. Currently the Cheelo centre has 45 students registered and 25 (55.5%) of them are women. At Chimbwete B centre there are about 46 learners whose age ranges from 14 to 49 years. Of these 23 (50%) are women. This high enrolment figure for women is a situation one would not find in most of the other education programmes in the country.

When the IRI project was evaluated in 2000 the following key results were noted. Firstly, children that were illiterate at the beginning of July 2000, when the programme began, became functionally literate by mid-October, 2000. It was also observed that quality learning was taking place in the IRI centres. For instance, tests conducted showed that learners at Grade 1 level were able to carry out simple arithmetic and had mastered the English vocabulary with the same competence as children in formal education. In addition, when the same tests were given to children in formal government schools there was not much difference in the performance (scores) between the two categories of learners.

Secondly, it was noticed that many parents, especially in the rural areas, had withdrawn their children from the government formal education system and sent them to the IRI centres to avoid payment of user fees and buying uniforms. From their inception, the IRI centres did not require payment of any fees, nor were there any requirements in terms of a uniform or shoes. (Fees and
uniforms were a requirement in government formal education primary schools until the beginning of this year.)

7.8 Opening Access to Information for Rural Women in Uganda

Background

The following project was based in Uganda and was initiated by Eva Rathgeber, the IDRC Regional Director at the time, and in charge of the Acacia programme. From observing children without technical or literacy skills “playing” on computers, she believed that the lack of literacy and technical expertise could be overcome if a computer programme was properly designed. This project was based on this belief and was jointly executed by IDRC’s Acacia Initiative and the International Women’s Tribune Centre.

The Acacia Initiative

The Acacia Initiative, established in 1997, is an international effort led by the International Development Research Centre (IDRC, www.idrc.ca) to empower sub-Saharan African communities with the ability to apply information and communication technologies to their own social and economic development. The objective of the first phase of Acacia was to test the proposition that ICTs can have significant transformational effects in the developing world. The belief was that by utilising ICTs to their own ends, the chosen communities in Uganda would be able to shift some of the decision-making away from metropolitan centres and international development organisations towards themselves. In this way, these communities may be able to address their own concerns and problems more effectively.

IWTC

The International Women’s Tribune Centre (IWTC, www.iwtc.org), is an international non-governmental organisation established in 1976 following the United Nations International Women’s Year World Conference in Mexico City. With a philosophical commitment to empowering people and building communities, IWTC provides communication, information and education, and organises support services for women’s organisations and community groups working to improve the lives of women, particularly low-income women, in Africa, Asia, the Pacific, Latin America, the Caribbean, Eastern Europe and Western Asia.

Project Summary

Building on earlier surveys conducted by IDRC, IWTC began its work with discussions among women living in close proximity to the Community Multipurpose Telecentre at Nakaseke, Uganda. From this work, a clear idea emerged of the type of information the women wanted. The content for the first programme, the women decided, would be on their needs as farmers and small businesswomen to make more money.

---

12 With permission of Anne S. Walker, Executive Director, IWTC. Adapted from a report of the IWTC, Women of Uganda Network (www.wougnet.org) and supplementary interviews.
IWTC, working in partnership with IDRC Eastern and Southern Africa Office (IDRC/Nairobi), developed a new information tool to offer direct access to information for women who are among the most marginalised in development – poor women with little or no reading ability. The starting place for this initiative is Africa and the starting point is a CD-ROM entitled, *Rural Women in Africa: Ideas for Earning Money.*

Pioneered in Uganda by the two organisations working in partnership with the Uganda National Council for Science and Technology, Media One, community groups such as the Council for Economic Empowerment of Women (CEEWA), Isis-WICCE and the Uganda YWCA, specifications were established that guided the development of the new information tool. The technical requirements dictated that the end product had to be usable on basic computer systems at rural telecentres, require minimal technical know-how to operate and not rely on access to the Internet or World Wide Web. The educational requirements were that the content material be accessible to an audience with little or no reading skills, be seen as having immediate value and be in the language of the community. Furthermore, and from a practical perspective, the new tool needed to be affordable in cost and adaptable into other languages to ensure widespread replicability and viability.

An underlying premise of the project was that the audience for this new information tool would be first-time users of computers. It was also assumed that a rural woman’s initial experience in using this new information tool would be important in determining whether the woman became a repeat user of facilities in the telecentres. In short, the new tool was expected to deliver not only useful information but also a positive experience.

The end product was a CD-ROM that used a simple browser navigating system with a graphic interface and spoken text. The content for the new CD-ROM was drawn and adapted from two primary sources: *From Boardroom to Burning Sun: Interviews with 75 Successful Entrepreneurs in Uganda* (http://www.wougnet.org/documents.html) by Peg Snyder which offered a wealth of information on “best practices” of successful entrepreneurial women, and the small business training manual, *Marketing Strategies*, developed by the Overseas Education Fund (OEF) and field tested extensively among low-income women in Africa. The CD-ROM is currently available in English and Luganda language versions. Links to the CD-ROM are at http://www.wougnet.org/News/cdupdate.html.

**Key Results**

The work to date suggests that this new tool is affordable, adaptable and capable of carrying multiple language tracks (thus an extremely effective vehicle for several local language sound tracks) and a critical component in fashioning larger interactive communication strategies. It also opens the possibilities of offering women farmers direct access to information they need to improve their productivity without relying on an agricultural extension agent – who is most likely male and who, their experience showed, communicates only with male farmers.

---

1 For an online version of this CD, go to  http://www.iwtc.org/files/!start.html.
At this point in time, IWTC wonders what rural women entrepreneurs could do if they had access to current market prices or ideas on crop diversification, or improved animal husbandry.

One unexpected benefit from this project, as noted by Eva Rathgeber, was an apparent increase in literacy. Since the narrative component of the CD is always accompanied by equivalent text in a text balloon, semi-literate women were able to link text with words.

**Lessons Learned**

Based on the past two years of work in Uganda important lessons learned include:

1. **Empowerment of Women**

   The sense of empowerment that rural women at the Nakaseke telecentre (www.nakaseke.or.ug) experienced when they discovered that they could easily learn to use the computer and could navigate their own way through the CD-ROM, although expected, was nonetheless exhilarating.

   Anne Walker (Executive Director of IWTC), writes in her recent visit to Nakaseke (February 2002):

   It was astonishing to see the active and vocal role played by the women farmers themselves in demanding that their telecentres be rebuilt after being burned to the ground. They wanted their computer programme back and nothing would stand in their way! They have become greatly empowered in the one year since the first field test of the program in February 2001, and now are outspoken in their support for the project, for the information given, and for future possibilities. There is no comparison between the quiet, timid, almost apologetic group of women who first sat down to discuss the possibility of a programme that would allow them to use the computers at the telecaster for the first time...and the group of women today, who are lining up at the computers for a chance to use the programme, or to show someone else how to use it. The pride on their faces that they have had a part to play in this is infectious. And to see a mother showing her school-age child how to use the computer is wonderful to watch. These were women who were accustomed to being laughed at just one year ago when they even approached a computer, much less touched it.

2. **Peer Teaching**

   The level of peer teaching that occurred among women using the CD-ROM was way above what we had anticipated. Although there is a brief explanation at the beginning of the CD explaining how to use it, by the time the third or fourth woman sat down to “try her own hand” at it, she moved through this section rapidly with encouragement being offered by her companions. IWTC sees this as an important lesson to be built on in the future in developing information and learning resources that offer small increments of advanced digital literacy that can be easily mastered and shared.
3. No Technophobia

Women did not demonstrate any of the “technophobia” frequently ascribed to rural, low-income illiterate women regarding the use of new technologies. On the contrary, once these women saw their neighbours using the computers successfully, they were eager to also try.

4. Importance of Technique to Positive Initial Experience

The technique utilised, that is, the use of browser software, has led to a growing confidence in the ability of the women to go onto the Internet, even though this is still down the road as a frequent event because of the charges for Internet use at rural telecentres in Africa. However, the ease with which the women move from page to page and within the programme has given them great confidence and an expertise that will be very useful when Internet use is more affordable and available to them.

5. Capacity Building

The capacity building that took place in the sharing of expertise between IWTC and a local technical team in Kampala has made it possible for the local group to expand their business considerably. They are now planning their own studios and workrooms, and hope to be able to develop four more Uganda language versions of the existing programme. It has been extremely encouraging to see the increased confidence of the local team and to watch their presentations of the project to other community groups.

Beginning Ripple Effects

Following the most recent visit by Anne Walker to the Nakaseke telecentre and her discussions with a group of 40 women farmers and entrepreneurs who had gathered there to meet with her, IWTC received an e-mail from one of the managers of the telecentre, Henry Serunkuma, who termed himself “the co-ordinator of the women at the telecentre.” He reported on the formation of a new association by the women living in close proximity to the telecentre as follows:

In the meeting held on 1st February 2002, Nakaseke women developed an idea of formulating an association to share the benefits of co-operation. The mission of the association is to empower Nakaseke women by integrating ICT skills into their day-to-day income-generating activities for development. Nakaseke Women Development Association (NAWODA – http://www/wougnet.org/Profiles/nawoda.html) is moving towards targeting Nakaseke women with information and services using approaches that move the services to places where Nakaseke women convene, rather than moving individual women to service points.
Henry Serunkuma comments on:

- **the achievements and strengths of the group:**

  With a lot of your combined effort and courage, Nakaseke women have started using computers and also developed a culture of reading. This has not only benefited them, but also their families as well, because they have encouraged their children to develop a culture of reading and this has increased the number of students visiting the Telecentre Library of which in the long run will increase the academic performance of their children. In this regard, Nakaseke women are forwarding their appreciation to you particularly and IWTC in general for the lovely heart and spirit of empowering women with skills for development.

- **his willingness to support their efforts:**

  As a computer instructor, I will volunteer in training Nakaseke women in different computer packages like word processors, spreadsheets, database management systems, presentation software and use of Internet and e-mail.

- **on the challenges they face:**

  Despite having the aforementioned strength, NAWODA is likely to face challenges such as the following: a) In order to integrate ICTs in income-generating activities, there is need to have Nakaseke women fully trained in computer skills and this presupposes that we need to have at least one computer set to enable Nakaseke women to have free computer access in favour of their convenient time. b) Looking at farming as their major economic activity, NAWODA has got a challenge of getting modern farming equipment like watering cans, sprays, pesticides and improved seeds which will result in healthy yields which can favourably compete on both local and international markets. c) Searching for friends and women organisations which will link NAWODA to markets of its products and also boost fundraising for self-sustainability of NAWODA.

### 7.9 Use of the Internet by Women as a Collaborative Tool

**Background**

The CEDAW Impact Study and Network carried out a comparative analysis of the impact of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) on national systems. Ten countries participated in the pilot – Canada, Germany, Japan, Nepal, Netherlands, Panama, South Africa, South Korea, Turkey and Ukraine. The Final Report on the First CEDAW Impact Study, including overview analysis and 10 country papers was released on

---

15 Submitted by Kelly Mannix, author of *The Busy Woman's Guide to the Internet*, kelly_mannix@hotmail.com.
June 16, 2000. The full report with complete country papers is available on the website: www.yorku.ca/iwrp.

The project used an online conferencing tool to link the members of the International Advisory Committee. They used asynchronous messaging primarily, due to time zone restrictions (Hong Kong to Harare). E-mail and a listserv were used to link project participants. In response to the problems and frustrations with technology experienced by the national correspondents, the project published a training manual, *The Busy Woman’s Guide to the Internet*. The goal of the Guide is “to support efficient and inexpensive use of current Internet technology for feminist research and activism.”

The contents of the Guide were proposed by the women participants and are a direct reflection of their Internet training and information priorities. The Guide covered:

- The history of the Internet and why women need it
- Getting started
- The steps to getting online and advice about virus protection
- Learning about the World Wide Web (WWW) including search engines and online resources for women
- Becoming part of the Internet community by joining listservs or online discussions.

There is also a glossary of Internet terms and a Women’s Human Rights Online Site Directory. The Guide is available at the project website.

**Key Results**

- Improved flow of communication between the project director and the country representations. There was consistent communication among the participating countries and with the project committee, and the IWRP team was kept informed of issues and concerns.

- The listserv enabled participants to communicate and collaborate on their research across multiple time zones without the burden of telephone bills or travel.

- Promoted teamwork. When the participants met in New York for the Working Meeting they had already been collaborating for months in a virtual community. As a result even with language barriers and cultural differences, under unforgiving deadlines, everyone worked well as a team and helped each other out to produce quality work in a very short period of time.

- The project participants and others who attended the seminar had a keen interest in how the Internet would promote international collaboration for women’s rights. All knew of the potential impact of the Internet in their work and informed us of what would be most useful to them to learn. We worked together to meet those learning needs, which later became *The Busy Women's Guide*. 
Lessons Learned

1. The depth of the digital divide

In North America we have our choice of ISDN or cable modems while our colleagues and fellow activists had 28.8 bps modem for dial-up only access. In many parts of the world, Asia, Africa and Eastern Europe, there is little technical support at an ISP and an institutional level.

2. The need to develop a communication strategy that is all inclusive

The success of the approach was due largely to addressing the lowest common denominator for technology tools. There were many other types of technology available for use, but with limited ISP service, costly usage, shared computers and older hardware and software, it was important not to isolate any of the participants. The listserv, while not glamorous, was inclusive and met all of our information needs.

3. Difficulties in co-ordinating online synchronous chatting across multiple time zones and with colleagues who frequently travel

As a result, the conference tool was most effective as a message board through asynchronous communication.

4. The need to budget for technical support for this type of project

Downloading and installing software, signing up for a listserv was a first for many associated with the IWRP. Providing transcontinental technical support requires time, communication, patience, on-the-fly problem solving and time (worth mentioning twice). Technical support could have been a full-time job on this project.

5. An example of how women can be intimidated by technology

It was important to provide encouraging support, not just technical support to the project participants. All the effort was greatly rewarded by the enthusiasm and growing confidence of the project participants with the Internet.
7.10 The Commonwealth of Learning Literacy Project – Kabwe, Zambia

Background

In 1998, The Commonwealth of Learning received a grant from the Department for International Development in the United Kingdom for a pilot project which was designed to explore and demonstrate how information and communications technologies (ICTs) can be used to support and supplement literacy programmes.

The pilot, which was designed to span a three-year period, is being carried out in two countries – Zambia and India – in selected learning centres. Local partners are involved in the project in order to ensure sustainability once the pilot has been completed. In India, the initial local partner was the Indira Gandhi National Open University, and responsibility subsequently shifted to the Commonwealth Educational Media Centre for Asia (CEMCA). In Zambia, COL is working with the University of Zambia which, in turn, works with the Ministry of Community Development and Social Services, the Ministry that has responsibilities for literacy training in the country.

The technologies involved in the pilot include computers, video cameras, VCRs, CDs, televisions and so on; they are being used to test and support a variety of different ways that literacy is being taught and teaching materials developed. The target audience includes adults and out-of-school youth that require reading and writing skills in order to seek employment or enrol in training and education programmes.

Anticipated Goal and Outcomes

The goal of the pilot project is to “demonstrate and evaluate the appropriateness and effectiveness of technology-based community learning centres through which literacy workers can provide training programmes that develop learner competencies in reading, numeracy and in the use of information and communication appliances.”

Specifically the pilot seeks to:

1. enhance knowledge on the appropriate and sustainable use of information and communications technologies in literacy education
2. train a cadre of tutors who are able to use ICTs in literacy education and are aware of media-based instructional resources
3. significantly improve the learners’ reading and numeracy skills, and their abilities to use ICT applications
4. acquire data on the role of ICT-based learning centres in the delivery of literacy education

---

16 Submitted by Susan Phillips, Education Specialist, The Commonwealth of Learning
5. develop materials to train literacy workers  
6. produce literacy materials for non- and neo-literate learners  

This case study reports on one of the pilot sites which is located in Zambia, the Kabwe Centre.  

**Key Results – Kabwe Centre**  

The project started its operation in Kabwe in August 2000, with five literacy classes, although the number has now increased to seven. There are three satellite centres “attached” to the main centre at Kabwe. The learners in the satellite centres do not have access to the ICTs (there is no electricity at the sub-centres), but they do benefit from the materials that have been produced at the main centres. Instructors, both from the sub-centres as well as from Kabwe, attend classes at the main centre in Kabwe where they receive instruction on how to write flexible learning materials as well as on how to use the technologies to support their own teaching.  

There have been significant achievements over the last two years that the Kabwe Centre has been in operation. For example:  

1. The use of technologies seems to have generated much interest in the adult literacy programme as the number of learners who have enrolled has increased significantly.  
2. Many of the learners are now able to read and write, as well as use computers correctly without any assistance from the tutors.  
3. Materials have been produced in the Centre using multi-media – seven folklores have been recorded and three video tapes have been filmed. These materials are in the areas of literacy and health issues, and are used in the literacy classes.  

One of the most startling results of this pilot is that the number of female learners far outnumbers that of the male learners. According to the latest (unpublished) report, there are 176 “consistent learners” at the Kabwe Centre, 172 of whom are female.  

The local tutors and co-ordinators suggested a variety of reasons for this huge discrepancy between the number of male and female learners. They opined that the local men tend to be more “shy” than the women and that they did not like to go to the Centre as this was perceived as going to “school,” something for children (and women).  

Other reasons included the fact that the literacy training materials were often interwoven with, or based on topics that were viewed as “female” subjects, topics such as health, nutrition and childcare. These topics clearly did not attract the male learners. It was also suggested that the local men were, on average, more literate than the local women and therefore did not have the same need to attend literacy classes.  

Interestingly enough, the fact that the classes were held during the day and that the men were otherwise engaged in working was not used as a reason for their low attendance rate in the literacy classes. The region around Kabwe appears to have very high unemployment – there were many people, mainly men, on the streets and few appeared to be gainfully employed.
Challenges

1. Funding is a critical component of any pilot project, and although the need to ensure sustainability through insisting upon the input of local resources is important, in some situations there simply are not any local resources available, especially money. This can lead to a cash shortfall which can negatively affect the learning in a variety of ways: the computers break down and there are no funds for maintenance; there is no money to buy cartridges for the printers, blank videotapes, etc.; the students cannot travel to attend the classes as there is no money to purchase fuel for the transport that brings them to the centre. (Many of the learners live in remote villages some 8 to 10 kilometres from Kabwe.)

2. All efforts are needed to ensure that the local partners can meet their responsibilities and commitments both in terms of funds, and in terms of human resources. If the local partners do not meet their responsibilities, then it becomes very difficult for the external partner to continue to support and sustain the initiative. In the case of the Kabwe Centre, the lack of trained local expertise to maintain the equipment meant that there were delays and frustrations that had not been anticipated.

3. Literacy is not viewed as an important end in itself – it is necessary to use topics that are relevant and of interest to the learners if they are to take the time to attend the classes. If male learners are targeted, the content of the materials must be perceived as being of interest to men – skill training, for example.

4. It is important to consider the need for a consistent power supply if the local power source is not reliable – the ICTs used in the pilot depend upon a reliable source, and if such a source is not available, the ICTs cannot be used by the students.

5. If the local instructors are on a payroll but perceive that they are being asked to do “extra” work, beyond their usual workload, there may be difficulties, and as a result, the work may not be completed as quickly as anticipated. All attempts must be made to ensure that there is a buy-in and ownership by the local staff and that the project belongs to them, not the external partners.

Project Evaluation

This case study reported on one of the Literacy Centres in one of the partner countries only. An evaluation of the complete pilot project is currently underway and will be available from The Commonwealth of Learning once it has been completed, submitted and accepted by the external partners.
7.11 Video: Women’s Tool for Development 17

Background

The Deccan Development Society (DDS) is a non-governmental organisation working in rural development in the Medak district of Andhra Pradesh, India. For over 15 years, 5,000 women belonging to the marginalised Dalit community have been organised into sanghams (voluntary rural groups) to work together for community development. Covering 70 villages, spread over 30 kilometres, the women work on sustainable farming on degraded dry lands and raise their livestock.

During the land reform movement, Manemma was given a piece of degraded land. Manemma transformed this land through growing 20 varieties of crops to feed her family of six. Manemma has created the farm based on her experience and knowledge on the principles of bio-diversity which is today being recognised by scientists as critical to farming. Diversity and control of seeds has been crucial to her survival.

Manemma and the other farmers fight the policies and trends in corporate and commercial farming as their own experiences show that multi-cropping maintains soil fertility and is not dependent on chemical fertilisers and pesticides. As these small farmers have little or no credit extended to them, their farming has to be sustainable. Experience has taught them that diversity is an insurance against crop failure, droughts and untimely rain. Diversity ensures food security and nutritional balance.

These farming techniques find little or no support in the media, and the farming knowledge and experience of the subsistence and small farmer is not supported through government schemes and agricultural institutions. Building on the knowledge and experiences of its members, DDS facilitates development through focused dialogues and debates, to alert them on policy issues that will impact their lives. These methods strengthen participation through direct democracy rather than representation.

The main activities centre around rehabilitation of the environment and the lands through permaculture (organic farming), building community grain funds (for difficult times) and creating community gene banks (to ensure that control over the seeds remains with the farmer). The use of media becomes a tool for communication, information, problem solving, documenting events and processes, indigenous knowledge and value systems, cultural traditions and social histories. The sanghams have refined their skills in participatory research appraisal (PRA) methodologies. The video is an extension to communicate within the community on local issues and to bring development through community debate and decision-making.

In 1998, video training was given to seven women, aged 16 to 35 years, who were a mix of middle level school students and non-literate farm workers. The training on digital cameras was

---

17 Submitted by Jai Chandiram, jaichandiram@yahoo.co.in. References: Cultivating Diversity and Participation and Beyond Handing Over the Camera by PV Satheesh.
spaced over eight months, and the workshops held were short periods of four days every month, with practice sessions in between. Expressing their need to work with video the women stated,

We want to communicate in our language. We wish to communicate with the people in other sanghams. Many events and activities happen in our communities and we need to document as they happen. We need to share our experiences with others in the field. We need to report news of our areas, the disasters and our successes. We can record the sangham meetings, capture the thinking and ideas of the women, show the advantage of the meetings and share them with the members and outsiders. We want to show and work with our degraded lands, for which we have no funds for chemical fertilisers. The video provides us a tool to discuss and find solutions to our problems. We are documenting our gene bank, and we need to shoot throughout the seasons and not be dependent on outsiders to do this work at their convenience.

The methodology for learning employed group discussions, storyboarding concepts, developing a glossary of technical terms using the women’s words and language, hands-on training, group analysis, and learning games. Building on the traditional oral narration skills and pictorial understanding, the women videographers demonstrate a high quality of artistic skills.

Recently, the Deccan Development Society set up the Community Media Trust (CMT), and in keeping with their philosophy of handing over power and control to the people, handed over the development and operations of the CMT to the women. The Community Media Centre has seven digital cameras, two computer editing units, an eight track audio mixer, microphones and lights. The programmes produced are “Our Balwadis” showing the activities in the preschool children’s centre, to motivate mothers to send their children to schools. They also issued documents such as community bio-diversity, development of watersheds to combat drought, management of soil fertility in semi-arid and degraded lands. Many of these films have been commissioned by international institutions involved in agriculture, environment and sustainable development practices (e.g., FAO, UN Habitat Commission, IPGRI, IIED). Short video reports on special days/events, such as World Food Day and International Women’s Day, are telecast on the national and commercial channels. The programmes have raw authority and authenticity, which comes across on the screen, and the impact is immediate. For the women, information support is a question of livelihood and survival.

Lessons Learned

The project clearly demonstrates that non-literacy is not a barrier to learning video. The literacy barrier can be overcome by trainers who are able to develop and adapt the television language and vocabulary to the local language, expressions and concepts which are familiar to the women.

Video is a powerful instrument for women to dismantle barriers to participation and overcome isolation. Video facilitates networking, collaboration and shared learning on projects. Women increase their confidence, speak freely and can collectively influence decision-making. Video can be an effective tool for non-literate women to express themselves and to communicate within sanghams and the outside world. Video is a powerful tool for increasing awareness for social justice.
Future Activities

- Continue to refine skills in communication, conceptualising ideas, scripting and editing.
- Train more women to produce programmes, as the unit is overburdened with commissioned programmes.
- Find channel(s) concerned with education and training to telecast the programmes on a regular basis for wider dissemination.
- Share experiences in sustainable farming and related issues with women in other countries.
- Increase the production of films on agricultural practices, community forestry, health, indigenous medicine, childcare, organisation of *sangams* and leadership.
- Document the unique experiences in dealing with difficult, degraded lands, and where little or no credit is available.

7.12 Women @ Telecentres: The Acacia Story

Background

This case study brings together an array of experiences from Acacia telecentres. Acacia is a programme initiative of the International Development Research Centre (IDRC). It was launched in 1997 as IDRC’s contribution to the empowerment of sub-Saharan African communities with the ability to apply information and communication technologies to their own social and economic development. The initiative is named after the Acacia tree of which there are hundreds of species all over Africa, in the hope that like the tree, the idea of information and communication technologies, their creative use, appropriation and diffusion will grow and flourish in the continent of Africa. At the time this initiative was launched by IDRC, very few international development agencies were implementing ICT projects in Africa.

Acacia was initiated in response to the call for an African Information Society Initiative (AISI) endorsed by African ministers and governments in 1996 as an action framework to build Africa’s information and communication infrastructure. Acacia’s original vision was to target disadvantaged and mainly rural communities, isolated from information and communication networks, and marginalised groups within these communities, in particular youths and women. A key element of this vision was to use ICTs in the search for solutions to local development problems.

Between 1997 and 2000, Acacia was involved with the establishment of 35 telecentres in six countries in Africa, five of these in collaboration with other international development agencies such as UNESCO and the International Telecommunications Union.

---

18 Submitted by Florence Etta-Akinaina, IDRC, Nairobi
What is a telecentre?

A telecentre is an integrated information and communication facility, which houses a combination of both new and not-so new ICTs such as radio, television, video, facsimile, telephone, computer/s with connectivity (i.e., Internet) and sometimes photocopiers and books.

In a way, this type of facility in which a number of different information and communication technologies are housed and used in an integrated manner is seen as the modern telecentre and is called a multi-purpose telecentre. There is, however, a great variety in the form, facilities and functions available at telecentres, from the simple telecentre with only one or two telephones having no link to the World Wide Web to a centre with numerous telephones, computers, printers, etc., as well as an Internet connection. Simple telecentres are very common and popular in Senegal, whereas community telecentres are a recent creation of development agencies. These are the types with which Acacia is involved.

Between 2000 and 2001, Acacia undertook evaluations of mature telecentres in South Africa, Mozambique, Senegal, Mali and Uganda. The results presented in this short case study emanate mainly from these evaluations.

Summary

- Telecentres, especially the multi-purpose or community types supported by international development agencies, are expensive to set up, are equipment intensive and also require community participation.

- Most first generation community telecentres are located in public community buildings, such as community centres, public halls and schools.

- Most community telecentres do not generate sufficient income to support all the services and staff salaries. They are largely run as donor-funded projects, and strategies and models for ensuring their financial sustainability are still in their infancy.

- Community telecentres provide a wider range of services than private cyber cafes. These usually include telephone (usually out-bound), facsimile, e-mail, Internet, photocopying, training, word processing and document printing.

- Telecentre services are not free and some users consider the prices too high.

- Fewer women, older people, physically handicapped, and to a smaller extent, illiterates, use community telecentres.
Some Results

Figure 1
Gender of Registered Telecentre Users (Uganda)

![Bar chart showing gender distribution of users across different telecentres in Uganda.]

Figure 2
Services Used by Gender (Joal, Senegal)

![Bar chart showing the quantity of services used by men and women in different telecentre services in Joal, Senegal.]

- Surfing the Internet
- Email
- Word Processing
- Consulting
- ETO
- Supply of Commercial Information
- Scanner
- Fax
- Training
Observational data from Uganda in 2001 showed that in four days twice as many men visited the three community telecentres and two cyber cafes under investigation.

One-quarter of the visitors were young, between 18 and 40 years of age, and one-fifth were less than 18 years. More men (twice the number of women) were assisted by telecentre staff and workers.

Photocopying and training were popular services for women. However when products are developed with women, for women and by women, the results can be incredible. An example of one such project is Case Study 7.8 where a multi-media CD-ROM was created as part of an effort by Acacia to improve the use of telecentre services by women.

**Lessons Learned**

- Telecentres are useful because they bring the benefits of information and communications to poor, rural and secluded or underserved communities.

- Telecentres are not used with the same intensity by men, women, the young, old, handicapped or poor. If unassisted or unsupported by a range of sensitive strategies, most groups other than young males will not use telecentre services optimally.

- Women are particularly disfavoured because of cultural norms, costs and other administrative and structural characteristics associated with telecentre use.

- Most information products currently available in the telecentres are not made for or attractive to women, but this can be changed.
Appendix A

ICT Summary Meeting
Participant List

Representing the Asian Region

Dr. Gan Siowck Lee
Associate Vice President, Academic Affairs
Inti College Malaysia
Jln. BBN 12/1 Bandar Baru Nilai
71800 Negeri Sembilan
Malaysia
Phone: 60+ 6 798 2031
Fax: 60+6 799 7531
E-Mail: gansl@intimal.edu.my or siowck@slgan.pc.my

Ms. Jai Chandiram
Advisor, Government of Andhra Pradesh Kuband Proj “Mana TV”
President: International Association of Women in Radio and TV (IAWRT)
D2D Munirka
DDA Flats
New Delhi
India
Phone: 91 11 617 1259
Mobile: 98490 39168
E-Mail: jaichandiram@yahoo.co.in or jaichandiram@mantraonline.com

Representing the South Pacific Region

Dr. Emma Kruse Vaai
Academic Director/Deputy CEO
Samoa Polytechnic
PO Box 861
Apia
Samoa
Phone: 685+ 21 428/971
Fax: 685+ 25489
E-Mail: emkv@yahoo.com

Dr. Esther Williams
University Librarian
Laucala Campus
The University of the South Pacific
PO Box 1168
Suva
Fiji
Phone: 679+ 313900, Ext. 2282 or 212282
Fax: 679+ 300830
E-Mail: Williams_E@usp.ac.fj
Representing the Caribbean Region

Mrs. Avrill Crawford
Project Director
Jamaica Computer Society (JCS) Education Foundation
Instructional Technology Institute (ITI)
18 Belmont Road
Kingston 5
Jamaica
Phone: 876+ 920 1899 / 929-5900
Fax: 876+ 754-9642
E-Mail: crawforda@cwjamaica.com

Mrs. Lorna A. Callender
Head
OECS Education Reform Unit (OERU)
P.O. Box 179, Villa Apartments
Morne Fortune
Castras
St. Lucia
Phone: 758+ 452-2082
Fax: 758+ 453-0841
E-Mail: lcallender@oeru.org or sunyer98@yahoo.com

Representing the African Region

Mrs. Agatha Gaisie-Nketsiah
Ag. Programme Coordinator
Public Financial Management Reform Programme
Ministry of Finance
PO Box M40
Accra
Ghana
Phone: 233+ 21 669289/20 811 8115
Fax: 233+ 21 674381
E-Mail: asgaisie@yahoo.co.uk
Dr. Mildred M. Nkolola-Wakumelo
Lecturer (Full Time – Distance Education)
Department of Literature and Languages
The University of Zambia
PO Box 32379
Lusaka
Zambia
Phone: 260+ 1 295777/8 or 292918
Fax: 260+ 1 253 952
E-Mail: mwakumelo@hss.unza.zm or mwakumelo@yahoo.com

Presenters

Dr. Eva M. Rathgeber
Joint Chair in Women’s Studies
Universite d’Ottawa/Carleton University
C.P./POB 450, Succ./Stn. A
Ottawa, ON K1N 6N5
Canada
Phone: 613 520 6644
Fax: 613 562 5994
E-Mail: rpr@sympatico.ca

Ms. Dorothy Okello
Coordinator, Women of Uganda Network (WOUGNET)
1950 rue Lincoln, #411
Montreal, QC H3H 2N8
E-Mail: dokello@wougnet.org

Ms. Ramata Aw Thioune
Knowledge Analyst
ACACIA – International Development Research Centre (IDRC)
BRACO/WARO
Dakar
Senegal
Phone: 221 864 00 00 ext 2221
Fax: 221 825 32 55
E-Mail: rthioune@idrc.org.sn

Dr. Florence Etta
Knowledge Analyst
Evaluation Associate
International Development Research Centre
Liaison House, State House Avenue
Box 62804
Nairobi
Kenya
Phone: 254+ 2 713 160/1
Fax: 254+ 2 711 063
E-Mail: fetta@idrc.or.ke
Mr. David Walker  
Education Specialist,  
Educational Technology  
The Commonwealth of Learning  
1285 West Broadway, Suite 600  
Vancouver, BC V6H 3X8  
Canada  
Phone: 604 775 8200  
Fax: 604 775 8210  
E-Mail: dwalker@col.org

Ms. Jenny Williams  
Project Manager, Pacific Region  
The Open Polytechnic of New Zealand  
Private Bag 31914  
Lower Hutt  
New Zealand  
Phone: 64 4 560 5829  
Fax: 64 4 560 5608  
E-Mail: Jenny.Williams@openpolytechnic.ac.nz

Facilitators

Ms. Lyndsay Green  
Lyndsay Green and Associates  
Consultants in Applications of Learning Technologies  
367 Walmer Road  
Toronto, ON M5R 2Y3  
Phone: 416 966 0794  
Fax: 416 966 4029  
Email: green@traintec.com

Ms. Susan Phillips  
Education Specialist,  
Materials and Open Schooling  
The Commonwealth of Learning  
1285 West Broadway, Suite 600  
Vancouver, BC V6H 3X8  
Canada  
Phone: 604 775 8200  
Fax: 604 775 8210  
E-Mail: sphillips@col.org
Appendix B

Checklist for Addressing Gender-related Barriers to ICTs

Use this checklist when designing and implementing projects using ICTs to ensure that your project is accessible to both women and men. By putting strategies in place to address the following barriers you will increase your chances of fully benefiting from the talents and resources of both women and men. Since not all projects operate in the same environment, you should modify the checklist to reflect local circumstances.

Ensure Content Relevancy

- value women’s knowledge, wisdom and experience
- use participatory methods to design and develop the content and learning systems to reflect the lives of women
- build on traditional communications methods
- ensure that the content is directly relevant to women’s livelihood
- consider local language content
- overcome literacy barriers through the appropriate design and use of ICTs
- use gender-appropriate instructional design
- use gender-appropriate learning strategies

Address Barriers to the Availability of ICTs

- ensure adequate communications infrastructure
- ensure adequate institutional structures
- consider using existing structures
- ensure access to the use of reliable electricity
- ensure adequate access to and control of user equipment (e.g., telephone, radio, etc.)
- ensure access to the Internet
- ensure access to technical support
- address potential mismatch between technology provider and end-user

Address Barriers to the Usage of ICTs

Address High Costs

- electricity/battery charges
- telephone charges
- Internet access charges
- high cost of obsolescence
- training costs
- capital costs
- course fees
- additional educational costs (e.g., books, uniforms, etc.)

**Address Skill Needs**

- ICT awareness and knowledge
- technology usage skills
- English language skills
- new learning skills (e.g., self-directed learning, etc.)

**Address Lack of Information**

- lack of awareness of ICTs’ potential
- lack of knowledge about where to access equipment, training, and courses
- lack of advocacy

**Address Socio-cultural Barriers**

- gender stereotyping
- lack of mobility
- restrictions on accessing public places
- need for proximity of ICTs
- need for security
- time famine
- lack of confidence
- lack of privacy
- lack of role-models
- absence of women as teachers and trainers

**Address Barriers to ICTs for Providers**

- ensure institutional preparedness
- ensure use of appropriate technology
- ensure knowledge about teaching/learning strategies
- ensure teacher preparedness
- address high cost of programme development
- address high cost of programme delivery
- address issue of sustainability