



Peace Corps

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Information and Communication Technologies (ICT)

Integrating Digital Tools
Into Your Projects

Idea Book
M0085

Information Collection and Exchange

This publication was produced by the Peace Corps' Center for Field Assistance and Applied Research. It is distributed through the Information Collection and Exchange (ICE). For further information or additional copies, please contact ICE and refer to the ICE catalog number that appears on the publication.

Peace Corps

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There is a special form at the end of this booklet for submitting your activities for future Idea Books.

INFORMATION AND
COMMUNICATION
TECHNOLOGIES (ICT):
**INTEGRATING
DIGITAL TOOLS INTO
YOUR PROJECTS**



Peace Corps

2003

*Information Collection and Exchange
Publication No. M0085*



The Idea Book Series

The ICT Idea Book is one of a series of booklets produced to share specific activities you may be interested in replicating. Other titles in the series are listed below, and new titles are produced regularly. All of these ideas come from the work of Volunteers. Most of them were submitted just as they are printed—there is not additional information. Some are extracted from larger reports. Where there are additional reference materials for an idea, notations tell you how to obtain them. The reference section at the end of the booklet will direct you to additional available resources. Please contact the appropriate person or group to follow up on the ideas.

You are encouraged to submit your successful activities to this series. You will find a form on the final page of this booklet with instructions.

Titles in the Idea Book Series:

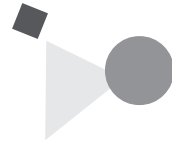
- M0080: Beyond the Classroom: Empowering Girls
- M0081: HIV/AIDS: Integrating Prevention and Care Into Your Sector
- M0082: Small Project Assistance Program (SPA): Supporting Sustainable Community Development
- M0083: In the Classroom: Empowering Girls
- M0084: DPM: Integrating Disaster Preparedness and Mitigation in Your Work



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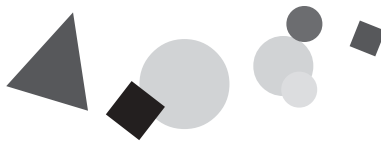
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Numerous field and headquarters staff worked to complete the publication of *Information and Communication Technologies (ICT): Integrating Digital Tools into Your Projects*. The Peace Corps appreciates the contributions of articles, ideas, and photographs by Volunteers, counterparts and staff throughout the world, and the efforts of all those who participated in this process.





Introduction: A Look at ICT Activities Worldwide

In today's technology-rich world, Peace Corps Volunteers are helping to bridge the digital divide through the use of information and communication technology (ICT) in development projects. The application of ICT strengthens the results and reach of projects. It also helps Volunteers find innovative solutions to problems, network with others in their own host country and around the world, and enhance their work with resources available on the Internet. In this idea book we present a wide variety of ways in which Volunteers are using all forms of ICT to achieve high-impact results across all Peace Corps sectors and initiatives.



What Is ICT?

What do you think of when you hear “ICT”? If you are like most people, you imagine a computer, and possibly the Internet, and how these two technologies are used to access and produce all sorts of interesting and relevant information. While this may be a commonly held definition, ICT, or Information and Communication Technology actually refers to a broad spectrum of technologies that allow users to get, produce, and share ideas and resources. It is useful to keep this concept in mind as we begin to strategize ways to use technology as a tool for “leapfrogging” stages of development.

In 2002, more than 1,300 Peace Corps Volunteers worked with 750 host country organizations and more than 14,000 host country counterparts and partners on information technology-related activities. Because of their computer, language, and cross-cultural skills, and the fact that they work on capacity-building efforts at the grass-roots level, Peace

Corps Volunteers are uniquely positioned to help individuals, organizations, and communities explore the use of information and communication technology to improve their lives. Included in this book are some ideas on ways in which Volunteers in all sectors can use ICTs to increase the impact of their work.

The following are descriptions of some forms of ICT and how they can be used to support Volunteers' work:

■ **Radio:** Radio is a fairly inexpensive and pervasive technology, yet it is often overlooked as a tool for development. In recent years, small community radio stations, which typically have a limited reception range, have increasingly been involved in broadcasting locally relevant development messages in such areas as health, nutrition, and civic participation. In several countries “interactive radio instruction” is used to provide educational programs in remote areas where teachers are undertrained or unavailable. Examples of this type of instruction include radio phone-in shows, road shows, and community radio. The core attributes of community radio instruction include prior research of relevant community issues on the part of the programmers and participation by community members in all facets of the broadcast. In addition, satellites can now provide radio reception to remote areas that were previously beyond reception range.



■ **Video:** Television signals are increasingly accessible in countries where Peace Corps Volunteers work, including areas beyond broadcast range with the use of satellite dishes. In addition, video has become a fairly inexpensive and common technology. The price of video cameras has dropped dramatically in recent years, and movies or videos with development messages can be shown in the most remote areas using a portable generator or car battery. Because of

the power of visual images, video—whether used for interactive teacher training or communicating effective health and nutrition practices—can be a very effective development tool.



- **Computers:** There are several levels of computer technology. A basic level would involve standard hardware, a computer, a monitor, and a printer, with word processing, spreadsheet, and database software. Depending on the processing speed of the computer, software might also be available on CD-ROM. Spreadsheet and database software alone can improve efficiency in organizational record keeping. An additional level of computer technology is e-mail. Because e-mail permits users to communicate across great distances quickly and at a relatively low cost, the demand for access has expanded exponentially. Another level of computer technology is Internet connectivity, which allows access to the World Wide Web.

The Web provides users with access to enormous amounts of information (e.g., scientific literature and development best practices), which might otherwise be inaccessible. The Web also allows interactive communication through the use of chat groups and bulletin boards. Currently, the most advanced form of computer technology is virtual reality, which allows users to interact in a computer-generated “virtual” world. Some promising applications for this technology are being developed, such as training in surgical techniques and allowing users to “ride” on atomic particles to demonstrate physics principles. However, this technology is prohibitively expensive for most development applications.



The Peace Corps' ICT Initiative

The Peace Corps is continuing a on going effort to formally focus on the use of technology to reach development goals. Volunteers are being called on in increasing numbers to transfer their knowledge in using all forms of technology to achieve those goals. Therefore, a significant development with regard to the Peace Corps' IT (information and technology) initiative is its name change to the ICT initiative. "ICT" stands for **Information and Communication Technologies**; the name change reflects the more comprehensive definition of technology to include radio and television as well as computers and the Internet. As of 2002, 75 ICT Volunteers were specifically recruited to work on ICT projects in the Inter-America and Pacific (IAP) region, and 14 were recruited in the Africa region.



A PCV in Africa trains a young girl in how to use a computer.

Communication Technologies in Action

Volunteers in all regions use TV, video, audiocassettes, print media (magazines, newspapers, and brochures), film, and especially radio to distribute their development messages to a broad audience. Volunteers have successfully used television and radio to spread health and educational messages to large numbers of viewers and listeners. In the IAP region, Volunteers established media committees on five islands

in the Pacific. Worldwide examples of Volunteers' use of technology include:

- ▶ organizing a live, interactive radio show to provide information on the European Union;
- ▶ producing an ESL (English as a second language) soap opera for television;
- ▶ producing a video about the importance of immunizations;
- ▶ developing radio call-in programs and TV segments about basic HIV/AIDS information;
- ▶ promoting a sales video featuring a women's weaving group;
- ▶ organizing a youth-led radio program to discuss issues centered on youth;
- ▶ using radio to publicize Community Content-Based Instruction accomplishments.
- ▶ using audiocassette recordings of health messages for broadcast on local radio stations;
- ▶ producing a radio show of a debate focusing on increasing women's capacity;
- ▶ using radio for disseminating information, such as public service announcements, and organizing on-air discussions, role plays, and stories to make the broadcasts educational;
- ▶ offering children's lessons via radio broadcasts; and
- ▶ hosting a radio show on American jazz.





Technology Integration Trends



Distance Learning

Volunteers are beginning to use a variety of media to support distance learning efforts, thus increasing opportunities to access education in the local communities. For distance learning to occur the instructor and student must be in different locations but able to interact or communicate through the use of print media, computer-based training, Internet-based training, interactive radio instruction, teleconferencing, and videoconferencing. The African Virtual University is an ambitious example of distance learning that offers a diverse set of courses via teleconferences to an underserved population.

Volunteers can exchange distance-learning ideas and resources with other international development practitioners and their counterparts by joining the DLDC (Distance Learning in Developing Countries) online discussion list. More than 600 members from all over the world participate in the list. To join, visit the DLDC website at:

<http://groups.yahoo.com/group/dlhc/>



Computer lab in Russia.

Promoting Computer Literacy

Volunteers worldwide work with a variety of audiences to transfer needed computer literacy skills (word processing, creating spreadsheets, and producing electronic presentations). For example, in the Dominican Republic, 17 education Volunteers became ICT teacher trainers, placed at district and regional levels by the secretary of education. Also, the new ICT Volunteers in the Dominican Republic train teachers in computer skills, focusing on how computers can be used to improve the quality of education in the classroom.

ICT Workshops

Volunteers throughout the world are conducting useful computer and interactive media workshops with and for their host country national counterparts and colleagues. For example, a Volunteer in Latvia organized a weeklong workshop for local teachers to learn computer and Internet skills. This Volunteer also recruited computer students from a local college as volunteer assistants for the workshop, which added to the event's capacity building. An agenda for a workshop can be found on page 16, taken from the *Information and Communication Technology Training of Trainers* manual (ICE No. T0122). Another type of workshop facilitated by Volunteers in The Gambia and Tonga focused on troubleshooting skills. See the Resources section of this Idea Book for an example of a troubleshooting workshop. Associate Peace Corps directors (APCDs) may have insights into possible funding sources for ICT workshops.

Technology Teams, Working Groups, Clubs, Support Groups, and Steering Committees

ICT Volunteers in several countries have created technology youth groups and Volunteer technology working groups to share resources and ideas and to provide support to one another. In Paraguay, Volunteers, who all use ICT in some form at their site, started a club as a support and communication network. Small enterprise development (SED) Volunteers in Senegal regularly produce a newsletter called



The Squeaky Wheel, which includes information on ICT activities and projects.

The following example describes the activities of a successful technology team established in Peace Corps/Ukraine.

Business Development Group 14 Creates the PC/Ukraine Website and Listserv

Peace Corps/Ukraine's Business Development Group 14 has created a website and a listserv (www.pcukraine.org). The listserv allows Volunteers to stay networked via the Internet or e-mail. It has helped PC/Ukraine to take its first step toward integrating the use of ICT with the work done by Volunteers in-country. The PC/Ukraine website has increased the effectiveness of Volunteers by offering helpful resources for use at their sites and has helped Volunteers in Ukraine to both communicate about and illustrate the Peace Corps experience and Ukrainian life to friends, family, and World Wise School partners in America.

The newly named, Volunteer-led technology team (formerly known as the Web team) intends to use the momentum created by Group 14's efforts to continue to expand the use of technology throughout Ukraine.

The objectives of the PC/Ukraine technology team include:

- 1.** Advance the effectiveness of current Volunteers in Ukraine by maintaining and building the PC/Ukraine website's library of resources and operating relevant software.
- 2.** Train Volunteers and their Counterparts in technology skills—including but not limited to conducting research via the Internet; developing websites for their organizations, schools, institutions, universities, etc.; and utilizing IT equipment and resources to draft grants, presentations, and promotional materials—at pre-service training, regional conferences, and sector conferences.
- 3.** Continue to help Volunteers in Ukraine to both communicate about and illustrate the Peace Corps experience and Ukrainian life to friends, family, World Wise Schools partners, and potential Volunteers in America.



The ICT-PCVs Listserv



The ICT_PCVs Listserv provides a forum for Peace Corps Volunteers and staff to share information that is relevant to their efforts to use ICT in their countries. Any Volunteer or staff member can subscribe to the listserv by going to the following URL:

http://groups.yahoo.com/group/ICT_PCVs/

Click on “Join This Group” and follow directions for signing up to become a member of the group. You may also subscribe by sending a subscription request to:

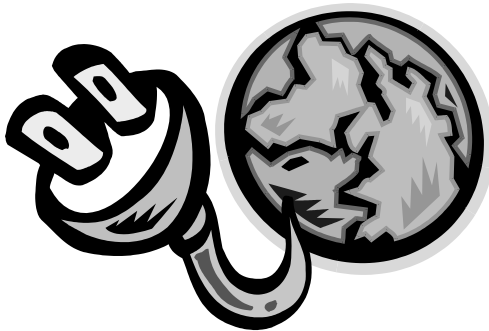
ICT_PCVs_subscribe@yahoo.com



Online Resources to Explore



- Guide to ICTs for Development
[www.comminit.com/pdf/CKS_Guide to ICTs for Development.pdf](http://www.comminit.com/pdf/CKS_Guide_to ICTs_for_Development.pdf)
- Digital Opportunities for Development
<http://learnlink.aed.org/Publications/Sourcebook/home.htm>



ICT in Health Projects

Although Volunteers in health projects address a wide range of issues, one of the most prevalent is HIV/AIDS prevention and treatment. In this section you will read about the outreach and education achieved with radio communication, the possibilities for expanded educational outreach offered by TV and video, and the application of computer technology to project management and health education activities.



Health and Radio

Using Radio to Promote HIV/AIDS Education and Prevention in Niger

Radio can be used to promote all types of Volunteer and community activities and generate the involvement and participation of the community. A Volunteer project in Niger used radio to promote an HIV/AIDS education and prevention campaign. To increase local interest and attendance and participation Volunteers asked a local theater group to perform educational skits and recruited local youth to participate in a basketball tournament for the event. Volunteers spoke with local government officials several times prior to the event to get their support.

Advertising the Event

Each week 14 announcements were broadcast, with two segments each day. Each broadcast was roughly two to three minutes long and included information on the upcoming event (theater group performances of HIV/AIDS educational skits), with the theater group performing segments of the skits during the advertising broadcasts. The announcements and skits were prerecorded.

Performing the Broadcasts

A host country animator and the local theater group did the broadcasts.

Problems Encountered

Setting up meetings; getting local health officials to participate; late arrivals or no-shows by top officials. In addition the theater group was from the city so traveling to the bush was a challenge for them; they were not accustomed to the “village” life. The basketball game was a great way of gathering people but generated a very large crowd that was difficult to manage. Working with the animator was challenging at times, since he wasn’t used to working with a woman in a leadership role.

Promising Practices

- 1.** Working with remote villages (theater group traveled to remote sites and performed skits).
- 2.** Engaging nomadic people in the sensitizations.
- 3.** Encouraging people to talk about sex even if shocking at times.
- 4.** Question-and-answer (Q&A) sessions following the skits to eliminate myths and rumors concerning HIV/AIDS transmission.
- 5.** Volunteers involved in this activity found that members of the theater group also increased their knowledge and awareness as they participated in the campaign.
- 6.** Broadcasting the event at least two to three weeks prior to the event to help hold public interest.



Lessons Learned

- 1.** For the theater performances and Q&A sessions, try to keep the crowd to a manageable size. Over 150 people during a Q&A

session is too large to manage and not everyone will be able to have their questions answered.

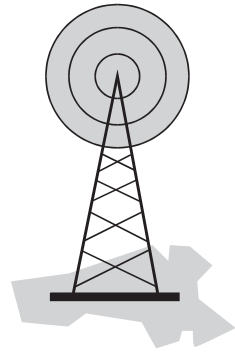
- 2.** Encourage as many women as possible to participate in the discussions.
- 3.** Try to coordinate with other Volunteers. There is a lot of pre-event footwork to be done.
- 4.** Try reaching groups that typically get excluded: nomadic populations, women, and youth.

Plan more than one event, hitting different listening areas of the country. This may make it easier for more Volunteers to participate and to assist with the planning.

General Tips for Working With Local Radio Stations

Visit the station to meet with station personnel several times prior to the actual scheduled event. Once or twice is not likely to be enough.

Many countries have established lines of protocol that must be followed when working with local radio, especially those that broadcast to a wide range of people and especially if the material to be broadcast is of a sensitive nature (birth spacing, for example). Be sure to meet with all of the necessary local officials who grant permission for such events.



For more information on developing and using recorded materials, and producing and broadcasting local radio materials in community development activities, see *Promoting Powerful People* (ICE No. T0104).



Health and Television or Video



Suggestions for Activities

- 1.** Videotape theater group performances and skits for use during HIV/AIDS educational activities or during activities focusing on clean and healthy living practices (hand washing, boiling water, etc.). If there is no available theater group in-country, enlist your fellow Volunteers and counterparts to help perform the skits.
- 2.** If working in an area where electricity is scarce or nonexistent, ask local nongovernmental organizations (such as Global 2000) to provide or rent a generator to power a TV and VCR.
- 3.** Play the videotaped skits at schools using a TV and VCR, or in community computer centers or Internet cafes using a CD and the computer screen.
- 4.** Share the video with local or government television stations. They are usually happy to receive local educational programming material.

If you are looking for ideas on the type of dialogue or subject matter that might be included in a skit or educational drama, refer to the HIV/AIDS Idea Book (ICE No. M00811) or the UNAIDS Radio Book (ICE No. HE362; see listing in the Resources section).



A satellite dish at a community radio station in West Africa.



Health and Computers



Health Volunteers in Jamaica are using computers in a wide variety of ways to help reach their development goals, including creating tables, graphs, and visual aids; and installing a wastewater database software program in two Regional Health Authorities.

In Honduras, a Volunteer rebuilt 15 secondhand computers, which were donated by a Rotary Club, and set up a computer laboratory. He also wrote manuals for Microsoft Word, Excel, and PowerPoint. The Volunteer then trained a capable young man from the community as a computer instructor. All vocational center students receive computer classes free of charge. In addition, 90 community members paid to attend these classes. The money raised from classes has paid the instructor's salary and the secretary of the center's salary, purchased one new computer and a color printer, and provided seed money for the other workshops to buy start-up materials.

Volunteers in Nicaragua constructed a database to facilitate the flow of information from an indigenous health center. Volunteers in the Gambia trained divisional health team members to process data generated at health centers and primary health care villages to enable them to provide feedback and supervise health care activities.



Volunteers and their municipal counterparts learn ICT skills in Latin America.



Health and the Internet



In Jamaica several Health Volunteers helped their counterparts with the creation of the SERHA website: www.serha.gov.jm. This website provides information regarding pools, tourism establishments, and food-handling establishments that have passed health inspections; HIV resources in southern and eastern Jamaica; and hospital locations and contact information. The site also contains job listings and media coverage of events in the region.

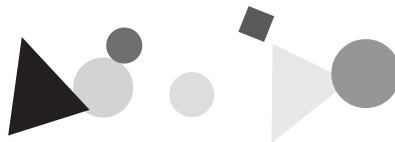
A Volunteer in Moldova helped construct a computer center for local youth that included computers with Internet connectivity. The center allowed young people to gain access to important health information through the Internet.



Online Resources to Explore



- The Global Health Information Network
www.healthnet.org/index.php
- Digital Opportunity Initiative: ICT for Health
www.opt-init.org/framework/pages/2.2.1.html



ICT in Education Projects

Volunteers working in education are using ICT in myriad ways. A growing endeavor is the delivery of computer training programs and the training of IT trainers. These initiatives build skills locally that can be transferred without the Volunteer's ongoing involvement. Volunteers are also using radio and television for English language instruction. Additionally, many resources exist on the Internet for Volunteer teachers to use in creating lesson plans or with students in the classroom.



Education and Radio

Two Mongolia education Volunteers produced a weekly English lesson on a local radio station (103.6 FM “Gobi Wave”) for one year. This work developed out of the Volunteers’ idea to do a music radio show in English. Their counterparts and a local DJ from the station collaborated on the project. They recorded all lessons to produce a set of cassettes that can be copied, distributed to schools and anyone interested, or rebroadcast by the station.

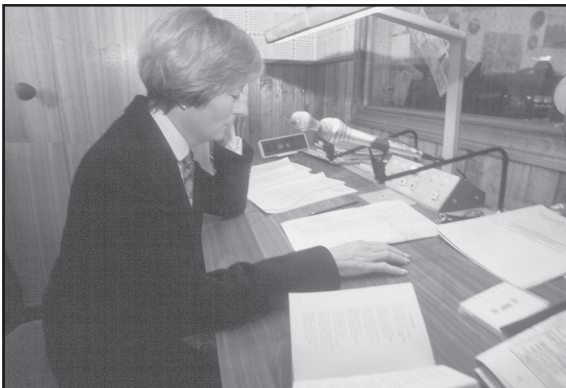
Peace Corps Volunteers in other parts of the world also found audio recordings helpful in facilitating English language acquisition. For example, Volunteers in Georgia produced English language audiotapes to augment new seventh form English language textbooks. Volunteers in Russia recorded 18 audiotapes of native English speakers to improve listening comprehension skills.

A Peace Corps Volunteer in Belize hosted a morning radio talk show focusing on special education and disabilities.

Education Volunteers in Zambia collaborate with the Educational Development Center (funded by USAID) and Zambia’s Ministry of Education to provide basic education through interactive radio instruction to orphans and other school-age children who are unable to access education through conventional means because of poverty, unavailability of schools, or a shortage of teachers.

Volunteers assigned to the “Taonga Market Learning Series” project:

- Assist with writing, producing, and recording programs.
- Edit program plans and scripts.
- Introduce life-skills ideas and lessons into programs.
- Generate follow-on activity ideas with scriptwriters at Zambia’s Educational Broadcasting Services.
- Help communities set up, run, sustain, and expand interactive radio instruction learning centers.
- Visit learning centers to monitor, evaluate, and encourage mentors and children, and to collect data for tracking children and centers.
- Assist with testing at the end of each grade.



A Volunteer in Russia uses radio in her work.



Education and Television

Television and video recordings offer Peace Corps Volunteers another powerful medium for providing educational programs—oftentimes to much broader audiences than could be achieved in a face-to-face teaching environment.

A Volunteer in Armenia organized and conducted a Teaching English as a Foreign Language (TEFL) course through the “Constellation of Languages” television program. The program was regularly broadcast all over Armenia.

TEFL and community economic development Volunteers in Bulgaria developed an English language instruction television course, which was broadcast on a local cable television channel.

In Moldova, a Volunteer assisted the president of a local television station in putting together a video about life in Foresti to show to people in the United States when he visited on a professional exchange program. Volunteers in Russia developed video materials for their English club, videotaped teaching activities for use in teacher training, helped establish a television studio, and developed three video libraries with assistance from the A&E television network.



Girls using video in Africa.

Volunteers in Costa Rica helped set up a DirectTV system to facilitate a distance-learning program, and Volunteers in Uganda worked with the Discovery Channel Global Education Fund to establish video learning centers around the country.



Education and Computers



The Peace Corps' *Information and Communication Technology Training of Trainers* (ICT TOT) manual (ICE No. T0122) can be used to conduct adult computer literacy programs. It contains information on possible sessions, lesson planning, timelines, and other resources. The field-tested ICT TOT manual is designed to assist Volunteers and field staff in transferring their technology skills through facilitated workshops in the field. The manual consists of two parts: the *Facilitator Guide with Reference Manual* and the *Participant Handbook*. All of the materials are on an accompanying CD so that posts can modify both session plans and the participant workbook before printing it. Below are a sample agenda and other useful information from a workshop.

The objectives of the ICT TOT are to prepare participants to:

1. Conduct effective computer technology and Internet training to help others better accomplish their development objectives.
2. Understand and apply participatory training methods that are effective in experiential learning situations.
3. Learn how to tailor a training program to the needs of the audience.

The ICT TOT is designed to accommodate 10–16 participants who are familiar with basic computer technology and the Internet. Although participants may or may not have experience facilitating technology training sessions, they anticipate engaging in projects requiring the transfer of these skills. The ICT TOT consists of three parts:

1. The formal ICT TOT sessions
2. Lesson and activity preparation for the practicum
3. A practicum, in which participants train counterparts, students, or community members in basic computer and Internet skills (one to two days)

ICT TOT Schedule: Four-Day Agenda

Day 1	
Activity 1: ICT TOT	1 hour
Activity 2: Training Design and Preparation	30 minutes
Activity 3: Techniques and Methodologies for Effective Training	1 hour
Activity 4: How to Structure the Delivery of Training	40 minutes
Activity 5: Teaching Someone How to Use a Computer	50 minutes
Activity 6: Training for Computer and Internet Use	50 minutes
Closing and Review of the Day	15 minutes
Day 2	
Activity 1: Welcome, Review, and Overview	15 minutes
Activity 2: Internet Overview Practicum	90 minutes (1.5 hours)
Activity 3: Finding Relevant Resources on the Internet	90 minutes (1.5 hours)
Activity 4: Country- Specific Computer and Internet Infrastructure	1 hour
Closing and Review of the Day	15 minutes
Day 3	
Activity 1: Welcome, Review, and Overview	15 minutes
Activity 2: Developing Training Modules	4 hour minimum
Closing and Review of the Day	15 minutes
Day 4	
Activity 1: Brief Review and Questions	30 minutes
Activity 2: Technology Applied	2 hours
Activity 3: Preparation for the Training Practicum	4–6 hours
ICT TOT Closing	30 minutes

Recommendations

It is recommended that participants be given more time to search and surf the Internet outside of the allotted TOT time in order to enhance their skills and find resources that will assist them as trainers. It also should be noted that a minimal number of activities designed to break the ice are used in this manual, as participants are likely to know one another from their pre-service training or in-service training activities.



Education and the Internet



Volunteers can organize and facilitate teacher training programs that focus on using the Internet as a tool for finding lesson plans and ways to introduce new teaching methods. Various websites exist that contain lesson plans in math, the environment, health, and so on. The following are examples of websites that contain lesson plans. Please note that these websites were current at the time this book was published and are only intended to offer examples of sites that offer lesson plans for many different disciplines and age groups. You are encouraged to use search engines to find current resources that best fit your needs.

1. Lessons Plan Page:
www.lessonplanspage.com/
2. Teachers.Net:
<http://teachers.net/lessons/>
3. Discovery School:
<http://school.discovery.com/lessonplans/>
4. Ask Eric Lesson Plans:
www.askeric.org/Virtual/Lessons/



There are also many websites that contain lesson plans for teaching computer skills. Computer course lesson plans are offered by Byte Back:

www.byteback.org/Curricular/index.cfm

Internet and Web-page development lesson plans are offered by the Leland Initiative:

www.usaid.gov/leland/manual.htm

and

www.usaid.gov/leland/tutorial/index.htm

iEARN describes itself as a nonprofit global network that enables young people to use the Internet and other new technologies to engage in collaborative educational projects that both enhance learning and make a difference in the world (www.earn.org/).

Another valuable education resource available through ICE is *Teaching With the Internet: Strategies and Models for K-12 Curricula*, published by Neal-Schuman Inc. (ICE No. ED 212). Distributed to Peace Corps in-country resource centers only.



Online Resource to Explore



- Making the Best of New Tools:
Standards for Integrating Technology
<http://cela.albany.edu/swan.stds.pdf>

ICT in Agriculture and Environment Projects

A pig can be a sought-after prize, and radio communications can be used to promote the competition that awards the prize. Whether on a local level or on a broader scale, ICT plays an important role in agriculture and environment projects. Volunteers have used information and communication technologies to:

- ▶ conduct a workshop on innovative technologies for NGO environment projects.
- ▶ conduct a workshop on ecotourism and information technology.
- ▶ conduct a workshop on mangrove inventory and management using information technology.
- ▶ conduct Internet-based research to improve agricultural productivity in Belize.
- ▶ increase the capacity of an agroforestry cooperative in Guatemala.



Agriculture and the Environment and Radio

In Paraguay, a Volunteer was concerned that almost nobody in his village was planting a garden so he organized a garden competition. He used his weekly radio show to advertise the event and, occasionally, to encourage community members to join the competition. He convinced a local NGO to contribute a pig as first prize, and he also threatened participants with a toad as last prize. Twenty-eight families entered the competition (in a community of 40 families). Entries were judged on quality of garden, strength of fence, use of organic pesticides



This Volunteer and counterpart host a community education program in Niger.

rather than chemicals, and other important criteria. In the end, so many of the families produced excellent gardens that the judges refused to decide. Instead, participants received a lottery ticket for each of the criteria that they had satisfied, and the pig (and toad) were raffled off at a community potluck that had lots of vegetables on the menu. Everyone received a watering can, but they realized that they had already won by having a garden full of vegetables for their families.



Agriculture and the Environment and Video

A Volunteer in southern Africa developed a regularly broadcast environment and science training program for technicians and teachers. More than 50 primary and high school teachers were trained in environmental education methods and hands-on environmental activities. To supplement the training the Volunteer produced an educational video on biodiversity that highlights freshwater biodiversity and conservation.

A Volunteer in Ghana produced a video on tree identification, tree protection, pest and diseases, nursery water source, vegetative zones of Ghana, propagation, vegetable gardening, income generation, extension, and tree nurseries. The video is being used as a tool for forestry pre-service training.

One final example of a Volunteer using video comes from the Philippines. The local government wanted to establish a marine protected area in two villages. A major step in establishing a marine sanctuary is to conduct a marine assessment. The Volunteer developed a video with coverage of the marine assessments, complete with interviews with local officials. The video played a vital role in the establishment of the marine sanctuary.



Agriculture and the Environment and Computers

In the Dominican Republic, an agroforestry Volunteer who works in a small, rural community has established a computer laboratory powered by renewable and environmentally friendly solar energy. As a direct result of the establishment of this laboratory, he teaches computer classes to rural children and youth (boys and girls); to date, he has trained 100 children and youth in basic computer skills.

In Honduras Volunteers and their counterparts at the Forest Service and other organizations have access to computer systems, including Landsat Imagery and GPS/GIS (Geographic Information System) equipment, which was donated by the German government and is available at the National Forestry School. The systems are used to digitize biophysical and socioeconomic information used to produce maps for watersheds and protected areas (boundary, watershed delimitation; potential and actual land uses; vegetation cover and forest types; soil slopes and contour lines; infrastructure such as roads, trails, communities, and other facilities; assessment of damage by Hurricane Mitch; and landslide maps). Maps are then taken to the field for ground verification and fieldwork. Also, computers are used to design and produce environmental educational materials such as manuals, booklets, posters, and leaflets.

Some ways to use computers to support sustainability of forestry include analytical processes for planning purposes, resources assessment and data collection, and on-the-ground forest management.



A PCV in Guatemala offers computer training.



Agriculture and the Environment and the Internet



A Volunteer in Honduras working on an environment project successfully used the Internet to market the local area as an ideal destination for ecotourism. The Internet also proved to be a valuable tool for farmers and local NGOs working in the agricultural extension field. Access to the Internet has allowed members of the community to investigate alternative markets as well as new production strategies for their agricultural goods.

The experience of a third-year Volunteer in Jamaica offers yet another example of how the Internet can help agriculture and environment Volunteers meet their goals. She and her supervisor obtained grants from the Canadian Green Fund, the Environmental Foundation of Jamaica, and the UNDP to establish “The Cyber Center.” The profits from the center will be used to support environmental projects.



Online Resources to Explore

- ICTs for Rural Development and Food Security
www.fao.org/sd/CDdirect/CDre0055b.html
- ICT in Agriculture
<http://agrolink.moa.my>
- Agriculture Info 21
www.undp.org/info21/sector/s-agri.html
- Agriculture and Environment Volunteers Interested in Using Radio
www.fao.org/sd/2001/radio/index_en.htm

ICT in Small Enterprise Development (SED) and Business Projects

Major businesses around the world today can hardly function without extensive use of ICT. In the communities where Volunteers are engaged, however, there is often little access to, or use of, computer technology or communications to strengthen small enterprise development (SED). As a result, Volunteers form an important link between people whose lives can be improved through the expanded use of technology and the resources that can be applied to meet those needs. In nearly every case, this work requires careful planning and collaboration with community leaders, financing sources, NGOs, or government agencies. In this section you will read how Internet research broadcast on radio programs helps farmers address marketing and other challenges, how Volunteers manage the start-up of computer training classes and cybercafes, and how Internet shopping helps quilt makers market their products to a worldwide audience and helps trainees gain confidence in surfing the Net.



In Lithuania, Volunteers collaborated with their nongovernmental organization (NGO) counterparts to write articles for national business newspapers promoting community awareness. In Slovakia, Volunteers helped their agencies prepare informational materials for TV, radio, and print media. In

Kazakhstan, Volunteers reach students and young professionals through popular TV shows about business English.



SED and Radio



The following vignette comes from a Volunteer in Kenya:

Working with a local Sayare radio station, I assisted with the planning of a radio-browsing project. The project attempts to address some of the problems facing small farmers in the Eldoret area, such as inefficient cultivation techniques and hard-to-market crops, by providing mediated access to the Internet's wealth of farming and agricultural information. The Ministry of Agriculture, the Kenya Agriculture Commodity Exchange (KACE), and Sayare Radio produce a weekly radio show on farming issues using Internet research. Listeners submit agricultural and farming-related questions (either by post or in person), and members of the project's production team retrieve answers/information from the Internet and configure it so that it is useful and appropriate to the target audience. During the weekly program, the presenter(s) broadcast the information in the local language (Kalenjin), with some explanation of the retrieval process (to build awareness and understanding of the Internet among the target audience. Topics include alternative crops and livestock, methods to improve yield and reduce input cost, and so forth. If time and programming permit, the program may also broadcast current market price information.

The program is expected to air in a 30-minute weekly time slot, operating on an entirely donated or voluntary basis. The project is an outgrowth of rural farmer training seminars we have organized with the location chief and agricultural officer. Sayare Radio has supplied the radio time for the program, while the agricultural officer and the local manager of KACE act as content advisors and presenters. All parties are enthusiastic about the idea of rural Kenyans having access to the Internet's farming information in a way that overcomes some of the barriers to rural Internet use. While the majority of small farmers may never sit at a computer, virtually all Kenyan families own a small radio and will be exposed to information that can improve their businesses.



SED and Television



A SED Volunteer in Lesotho, who was assigned to the media department of the adult continuing education division of the university, produced and hosted a weekly television talk show for Lesotho television called “We Mean Business.”

The Volunteer and her counterpart developed the show concept and presented it to Lesotho Television (which is owned and operated by the Lesotho government) as a means of boosting local television programming and promoting local businesses. The television station agreed to the concept and lent the camera equipment and use of its studio and editing facilities (until the university acquired its own). The Volunteer’s counterpart was the director and camera operator.

The team developed a list of topics for the season (13 episodes) at the beginning of each year and then booked show guests (local entrepreneurs) accordingly. Topics ranged from “Women-Owned Businesses” to “What’s a Bar-Code Scanner and How Can It Help Your Business?” to “Promoting Goods and Services Outside of Lesotho.”

The Volunteer and her counterpart persuaded local clothing stores to provide the host’s wardrobe and a local furniture store to provide seating arrangements and other set furnishings in exchange for commercials promoting their businesses.



Using video during Take Our Daughters to Work Day.



SED and Computers



The following was adapted from a Volunteer-written article, “Bridging the Digital Divide: Tips, Traps, and Triumphs” that appeared in Peace Corps/Senegal’s newsletter, *The Squeaky Wheel*. The article described computer literacy training conducted by Volunteers.

What Volunteers Did

- Started a word-processing class at a reduced price.
- Organized two groups of participants that received four hours of training per week and a one-hour self-directed workshop.
- To deal with capacity constraints, allowed only three or four people per computer.

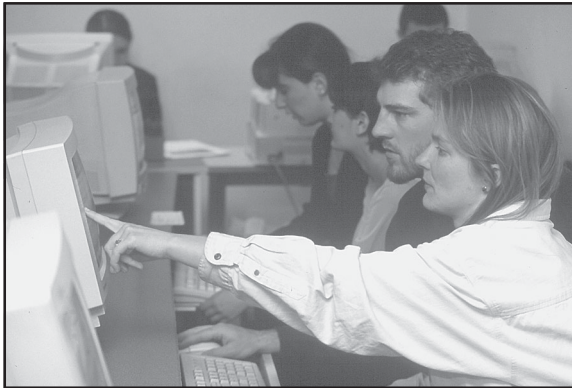
Problems Encountered

- Collecting payments in a timely fashion and outstanding payments. Volunteers dealt with this by emphasizing a moral contract with participants and their financial contract with other parties.
- Price enforcement. It was difficult, but essential, to remain firm on the price because some students were friends of the Volunteers.
- Marketing. People were initially hesitant but started coming when they saw lots of other people signing up.
- High turnover among clients. Volunteers worked to improve class structure and better address the needs of the students.

Possibilities

- Summer school courses. In the summer the town swells with students who live in larger towns during the school year.
- Night school. There are classes with 20 students for four hours per week. Most students work during the day.

- Professional courses. Office support courses can be offered to students seeking competitive internships at local businesses and organizations.
- Tutoring/immersion.
- Students. Over 30 students study two hours per week for a monthly fee. Volunteers also tried to engage the support of schools to recruit 300 students in exchange for a computer and printer. They were unsuccessful at meeting their objectives. The assumption was that the first month's tuition would be used to pay for the computer and printer, and subsequent monthly payments would eventually cover the costs.



Using computers for interactive learning.

Problems With Managing Cybercafes (Internet Cafes)

- Exploitation by computer repair people. People may take financial advantage when equipment needs to be repaired. It would be ideal if one of the investors were trained in computer troubleshooting.
- Maintenance of computers. Computers malfunction and break down all the time. To help reduce problems with breakdown, Volunteers have restricted access to their hardware, allowing access only to hired personnel.

Concluding Remarks

Local work partners should be responsible for researching the costs and creating a business strategy appropriate to their environment. Volunteers in Senegal have learned the following lessons:

- ▶ Investors in the computer project should be familiar with computers. Lack of technical expertise made Volunteers vulnerable to exploitation.
- ▶ The threat of losing money breaks cultural habits and makes rigorous management stick in practice, not just in words. Subsidies may jeopardize this learning process.
- ▶ Volunteers who have knowledge of basic software programs can work as “experts” in some rural areas. It is possible to learn about other computer applications and technology issues (such as LANs) through online tutorials and courses.
- ▶ People who understand town politics or are extensively involved in community affairs have a rich command of marketing opportunities. This skill is extremely useful when introducing new or foreign ideas.
- ▶ It takes a lot of persistence and perseverance to make a cybercenter work in a small town. Make sure your partners are motivated and have the necessary finances.





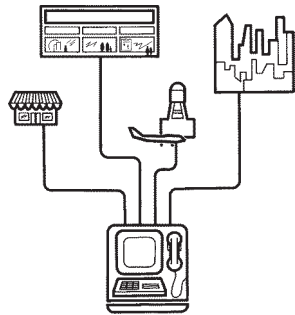
SED and the Internet



Small business Volunteers in Suriname have worked with local women artists to produce a website marketing handmade quilts. Not only does the website provide an opportunity for the women to showcase the beautiful materials they have created, but it also provides a means for them to globally market these products.

Eliminating Fear of the Internet

For many host country colleagues, the Internet is new and sometimes intimidating. Often people are interested in learning more, but they may be afraid to experiment for fear of “breaking” something. When teaching a group how to use the Internet, consider a strategy used by a Volunteer in the Ukraine. This Volunteer decided to help participants relax by beginning the lesson with nontechnical material—Internet shopping. Participants used shopping as an example of how to find information on the Internet. They were shown the newest catalogs from a few well-known stores. Participants were eager to see what products were available in the United States and what fashions were current. This short, but fun and interesting activity helped lessen participants’ fear of using the Internet. After that, participants were less apprehensive about using the Internet and felt more comfortable searching for and visiting business-related sites.



Small business Volunteers in Kenya have worked with individual businesses in the information and business centers (cybercafes) to create websites and teach the business community how to use the Internet to increase their access to information and customers.



Online Resources to Explore

- PEOPLink – “A nonprofit marketplace benefiting grassroots artisans and their communities around the world.”
www.peoplelink.org
- ICT for Poverty Reduction and Economic Growth
www.developmentgateway.org/node/133831/sdm/docview?docid=492330
- ICTs and Small Enterprise in Africa
<http://idpm.man.ac.uk/rsc/is/ictsme/ictsmeaf.shtml>
- Information, Technology and Small Enterprise: A Handbook for Enterprise Support Agencies in Developing Countries
<http://idpm.man.ac.uk/esahndbk.html>



Women and Girls Working With ICT

Much has been written about the “the digital divide”—the gap between those who have Internet and computer access and those who do not. This divide is biggest in the nonindustrialized nations where Peace Corps Volunteers live and work. Unfortunately, in developing countries women tend to suffer the consequences of the divide more acutely than men and are less likely or able to participate in today’s “information age.”

In an era when fax machines have gone from new technology, to common use, to virtual obsolescence in only about 10 years’ time—and Internet cafes have become commonplace in capital cities and in smaller towns in nearly every country where Peace Corps Volunteers work—“women are still only 22 percent of all Internet users in Asia, 30 percent of those in Latin America and six percent of Middle Eastern users. No regional figures by sex are available for Africa.”¹



A Tongan girl learns how to type using computer-based typing software.



Why Are Women Less “Connected” Than Men?

In many countries women tend to participate in the low-tech end of adaptation (as data processors, for example) rather than contributing to higher end applications such as Internet content development, programming, or web page design. However, women and women’s groups do frequently use e-mail, an important tool for empowerment, to share resources and to network.

Some of the reasons women tend to participate less frequently than men in a technological society include:

Low Literacy Skills. “Basic literacy and numeracy are needed to read and compose simple messages, navigate the Internet, and execute commands in software applications. As women make up nearly two-thirds of the world’s illiterate, and one out of every two women in developing countries is illiterate, women are more likely than men to lack the basic literacy and computer skills that would enable them to take advantage of new global communication opportunities.”²

Cultural Biases. In some countries, it is not culturally appropriate for women and girls to “hang out” in public places like cybercafes, where Internet and computer access are available for those who cannot afford a personal computer.

Traditional Gender Roles. Women and girls may lack the confidence to try something unfamiliar or new.

More Women Than Men Live in Rural Areas. In rural areas, women constitute 60 percent of the population. The gender gap in Internet access runs parallel to the rural/urban divide. Cybercafes and cheap Internet access are more likely to be located in urban centers.



How Can You Encourage Women and Girls to Participate in a Technological Society?

- Provide cooperative, hands-on learning experiences. When classes are cross-disciplinary (e.g., relating computer science to real-world applications like health, politics, and art), more girls are likely to sign up and stay with it.
- Hold a girls-only class. Girls are more likely to participate when boys are not present.
- Introduce female role models in the technology field.

What follows are some initiatives encouraging girls to use technology. Visit the following websites for additional ideas on how you can encourage women and girls in your own community to make use of technology:

- Techbridge: Encouraging Girls in Technology
www.chabotspace.org/visit/programs/techbridge.asp
- The IGNITE (Inspiring Girls Now in Technology Evolution) Program
www.ignite-us.org/
- Center for Women and Information Technology
www.umbc.edu/cwit/index.html
- Peace Corps Resource Focusing on Women, Girls, and Technology
Gender and the Information Revolution in Africa (ICE No. WD143).





Women, Girls, and Radio

Approach your community radio station, or even the Ministry of Information, regarding producing a dramatic serial radio program about the trials and tribulations of an enterprising female farmer, small business owner, teacher, etc.

In Niger, Volunteers used radio to publicize and expand the reach of events such as a Women's Day, a Men's Day, and a campaign to raise awareness of the need for girls' education. Volunteers also used rural radio to promote women's agribusiness and women's career days, to discuss women's issues, and to train young women to use computers.

The following URL contains the article "Improving Access to Rural Radio by 'Hard-to-Reach' Women Audiences":

www.fao.org/docrep/003/x6721e/x6721e15.htm#P5_1

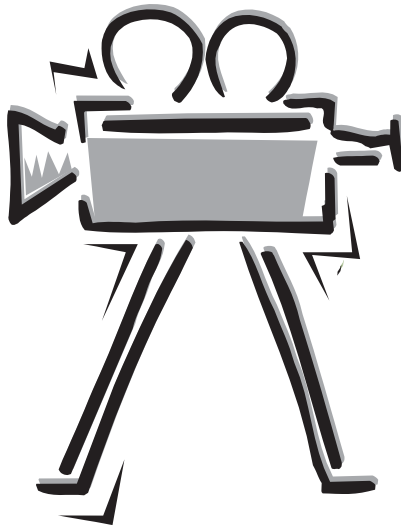


Radio: Take Our Daughters to Work Day in Cameroon

Women, Girls, and Television

Local TV and radio stations are often starved for locally produced programming. In conjunction with your counterpart, community, or local Women in Development/Gender and Development (WID/GAD) group, propose the production of a weekly radio or TV talk show that focuses on a different woman-owned small business each week. If it is a television program, ask local female business owners to donate items to furnish the set or to provide a wardrobe for the show “talent,” in exchange for on-air credit at the end of the show.

Hold mock interview sessions to help increase women’s opportunities for landing a new job. Videotape and then replay the interview so that the interviewee can evaluate her performance. Seeing or hearing oneself can be a very enlightening experience. Training women how to operate the video and audio equipment to record the interview sessions also provides the women the opportunity to gain a valuable new skill. If your organization does not own a video or tape recorder, you may be able to access one through a local university, NGO, or community radio station.



Women, Girls, and Computers

The following are examples of activities that can be used to help facilitate the use of computers by women and girls:

- At your next WID/GAD meeting, distribute a list of Internet resources for women and girls. Make arrangements with a local Internet cafe or telecommunications center (often located at teacher-training colleges) for a group discount and hold a “Web surfing” day for a local women’s group. Make arrangements for child care so that women can fully participate.

- Help women set up and run sustainable community or school telecommunications centers. For ideas on how to go about this, see the UNESCO publication, *The Community Telecentre Cookbook for Africa: Recipes for Self-Sustainability* (<http://unesdoc.unesco.org/images/0012/001230/123004e.pdf>).

- Encourage women to make use of free online typing tutors (typing courses and tests) to increase their typing speeds and increase job marketability. (Just type “free typing tutor” in your favorite search engine.)

- Design an “e-commerce” website featuring goods produced by women and girls. Use a free Web-hosting service (there are still a few available).

- Add an IT component to your Camp GLOW (Girls Leading Our World) activities. Collaborate with a local Internet cafe to provide access to the Internet. (Additional information on Camp GLOW is available in the *Camp Glow Handbook for Volunteers*, ICE No. M0056, and the idea book *Beyond the Classroom: Empowering Girls*, ICE No. M0080.)

The following workshop is an example of how a Volunteer facilitated access to computers for women and girls.

Ghanaians Gain Confidence Through Computers

(Originally published in the Peace Corps' WID/GAD *Exchange* newsletter, September 2001, Volume 34)

Recently, a handful of Ghanaian girls participated in a weekend workshop designed to introduce them to basic computer skills, to build their confidence in using computers, and to promote their interest in information technology. The conference took place at Wenchi Secondary School, and was facilitated by its computer lab's director and his two computer technicians.

The director started the workshop by introducing the girls to the lab and explaining its rules and etiquette. The girls had a wide range of computer experience, from never having seen a computer before to being familiar with some software.

The participants learned about the parts of a computer, and its basic operations. They learned how to use menus, and were each assigned a user name and a password for the local network. They were taught how to log in and look at the files in their directories. The girls also practiced the correct way to position their hands on the keyboards, which they abandoned for the hunt-and-peck method. The girls also played simple computer games, which provided a great way to break up the sessions and practice using the keyboard.

Another interesting session allowed the girls to send e-mail messages to someone in America. With the phone lines down, however, they were not sent in time to receive replies before the end of the workshop. The girls also took time to view the Wenchi Secondary School website, after which they learned about html (hypertext – markup language) code and designed their own Web pages. The lab director took a photo of each girl to be added later to their personal pages.

One of the most enjoyable activities was a competitive game of Scrabble over the network. The students seemed to really enjoy the weekend and all expressed interest in learning more about computers.

Specific examples of how Peace Corps Volunteers have used computers to empower women include the following:

- Guaraní women artisans in Bolivia are using computers to open new markets for their crafts.
- An English Resource Center has been established in Jordan where user-friendly, English language software is available to female teachers.
- A Volunteer in Estonia helped establish the Lääne-Virumaa (West Viru County) Contemporary Information and Technology Center. The center provides IT resources and training for students, teachers, and community members. It is located in the Technical School and managed by the school's information technology teacher. The lack of a formal computer center earlier had hindered students' and residents' efforts to secure work, to create new opportunities for employment, and to access information available through computer technology. Following its official opening in 2001, the center has become a popular resource for the entire community. Thirty IT students (postsecondary school) currently study at the facility. In addition, the center offers adult evening courses Monday through Saturday, and is open for Lääne Virumaa students, teachers, and residents on a daily basis.



A Volunteer and counterpart work on their ICT integration plan during a workshop.



Women, Girls, and the Internet



The Internet offers an incredibly powerful medium for the sharing of information and communicating. The following describes an effort by Peace Corps headquarters staff to expose girls from around the world to one of many ways they can use the Internet.

Virtual Chat Forum for Girls

Peace Corps headquarters' Girls Education Working Group hosted a series of live, online text chat sessions in 2002 and 2003. The forums were organized by language (e.g., an English chat and Spanish chat), and the participants included girls in 15 Peace Corps countries. The goals of this activity were:

- ▶ to expose girls to ICT and promote the use of technology;
- ▶ to encourage geographically dispersed girls, Volunteers, and Peace Corps staff to discuss girls' roles in the ICT field; and
- ▶ to initiate discussion among participants on the ways that ICT can affect girls' education.

Each post nominated one or two Volunteers to participate, and in turn, those Volunteers selected up to two girls to participate in the event.

The private, low-graphics, password-protected chat room was provided by the Academy for Educational Development.

Selection Criteria

Volunteers were asked to consider girls who:

- were motivated and interested in this activity
- were aware of and interested in information and communication technologies.

- had written and conversational language skills in the selected chat languages.
- possessed basic typing skills.
- were willing to participate in follow-up activities.
- were 12 to 18 years old.

Activity Overview

- Each live, one-hour chat was moderated by Peace Corps headquarters staff.
- Peace Corps headquarters invited female ICT professionals (from outside the U.S.) to participate as guest “speakers.”
- Volunteers and girls were provided with funding to cover an additional hour of connectivity for guided follow-up activities.
- Prior to the event, Volunteers participated in a dry run to correct any technical problems that might arise.
- Prior to the event, Volunteers also assisted the girls in setting up e-mail accounts and helped the girls prepare and post brief biographical profiles in the chat room so that the girls could learn a bit about each other.
- Volunteers acted as mentors to the participants during the event, but the girls did all the “chatting.”
- For the first 20 minutes of the chat, the girls had the opportunity to chat among themselves, sharing information about their schools, families, culture, communities, sports, free-time activities, etc.
- For the second 30 minutes of the chat, the girls asked questions of women who use ICTs in their professional work and in their personal lives. The girls mostly inquired about the women’s education and career development, women’s access to computers, and the role or impact of computers in society.

- Volunteers assisted in identifying resources and carrying out follow-up learning opportunities.
- Volunteers and girls participated in an evaluation of the activity to better inform future online chats.

Online Chat Sample Agenda

TIME*	ACTIVITY
10:00 a.m. EST	Girls and Peace Corps/Washington are logged in to the chat room
10:00–10:05 a.m. (5 mins)	Peace Corps/Washington welcomes the participants
10:05–10:25 a.m. (20 mins)	Girls' Free Chat—during this time girls may ask each other questions about life in their respective countries. They may also use this time to look at other profiles and explore the icons and text color features.
10:25–10:27 a.m. (2 mins)	Technology experts log in to the chat room
10:27–10:30 a.m. (3 mins)	Peace Corps/Washington welcomes the technology experts
10:30–10:35 a.m. (5 mins)	Girl(s) in Belize post their questions to the technology experts and receive their response
10:35–10:40 a.m. (5 mins)	Girl(s) in Bulgaria post their question to the technology experts and receive their response
10:40–10:45 a.m. (5 mins)	Girl(s) in Ghana post their question to the technology experts and receive their response
10:45–10:50 a.m. (5 mins)	Girl(s) in Romania post their question to the technology experts and receive their response
10:50–10:55 a.m. (5 mins.)	Girl(s) in The Gambia post their question to the technology experts and receive their response
10:55–11:00 a.m. (5 mins)	Girl(s) in Ukraine post their question to the technology experts and receive their response
11:00–11:05 a.m. (5 mins)	Closing remarks from Peace Corps/Washington
11:05–11:10 a.m. (5 mins)	Goodbye and log out of chat room. Begin follow-up online activities.

Outcomes

For many of the girls, this was their first experience using the Internet, participating in a live chat discussion, and communicating with individuals outside of their own communities and countries. They came away from the experience with the understanding that “technology isn’t just for boys!” They felt empowered by the opportunity to use the latest technology to “talk” with female professionals. Several of the girls exchanged e-mail addresses following the chat so that they could stay in touch with the new friends they made online. Many of the girls made formal presentations to their schools and communities about their Virtual Chat Forum experience.



Video: Interviewing a young student during
Take Our Daughters to Work Day

Youth and ICT

In many parts of the world today instantaneous communication is made possible by satellite technology for radio and television and by the Internet. Just a decade ago, the speed, breadth, and quality of these technologies were of a lesser standard—many were not accessible outside of military applications. Peace Corps Volunteers working in communities around the world are bringing technological awareness to young people whose natural curiosity seems to make the learning process faster and less fearful than it is for adults. In this section you will read about youth radio and video activities, computer classes and camps, and ways that computer games can be used to teach skills and have fun.



Youth and Radio or Audio

A Volunteer in Cameroon developed a series of radio broadcasts with lessons for children and youth. The following are recommendations when involving youth in radio projects:

- ▶ Summer vacation is a good time to get youth involved.
- ▶ Depending on where the facilitator is based and from where the youth will be coming, it may be necessary to prerecord shows during production blocks in the month before broadcast.
- ▶ Before taping, have the youth participants create a name for their program and possibly a jingle.
- ▶ Have the station create or use prerecorded promotional spots starting a week or so before the first broadcast. This way the youth participants can start to look forward to the series and can plan on when they should be listening.

- ▶ Set reasonable limits; a three-hour segment in one day is a reasonable goal.
- ▶ If there is going to be a particularly heavy production day, try to have snacks and drinks for people who have to wait around.
- ▶ Check out the studio set-up beforehand so you can see how it works and if there are pieces of equipment they lack.
- ▶ Make sure that there are two copies of each program made—probably a reel-to-reel and a cassette if CD technology is not available.
- ▶ Make sure a new tape is used. Also, make sure that you can acquire tapes with necessary cassette length in your area; these may need to be purchased in the capital or a bigger city or town that is known to have a wider variety of items.



Inside the broadcast booth during a community-focused radio program.

- ▶ Work with the radio station (programming director) on selecting dates and times for the production blocks. This will ensure that they are held on days and at times when the station has the capacity to host them.
- ▶ Select days and times (depending on how intensive the campaign will be) when the individual programs or shows will be broadcast. This way, even if you are not based in the same town as the radio station, you can organize discussion groups for listening to the shows and thereby continue the debate.
- ▶ A school vacation series can be done once a week for 10 weeks or twice a week for five weeks. It is likely that the station will replay the series if you provide them with audiotapes.
- ▶ Have fellow Volunteers publicize the series day and time in their villages and also hold discussion groups.
- ▶ Have a moderator (popular local personality, if possible) present during all programs that make up the body of the series. The moderator can introduce the youth participants and the local authority, facilitate or ask questions to/from the youth for the authority, introduce music from the script, and so on.
- ▶ Each program might have five or six new youth participants and a local authority. The moderator will help the youth interview the weekly authority regarding the specified theme.
- ▶ The moderator may be asked to broach specific subtopics during the program.
- ▶ The youth will be very excited to participate and will be willing to share a room for the night in a lodging facility and receive a small per diem plus transport. They will likely remind you several times of their readiness to go and do the show. This may serve as a radio production or journalism apprenticeship for them as it will likely be their first time in a radio station.

- ▶ You probably will need to remind the local authority (doctor, nurse, midwife, community organizer, rural development agent, NGO representative, football player, teacher, government official, etc.) several times of the dates and times of the event. You may even have to pick them up and take them to the station when it is time for their taping. Incentives for their participation could be a cap or T-shirt and certificate for their time.
- ▶ Motivated youth participants can be selected from various volunteer initiatives. Make sure to get a good mix from throughout the country (or your region within the country) with both rural and urban (the larger towns in the province if it is primarily rural) representation. Make sure that they are not timid and that they understand the topic well before taping. Work with the participants to prepare their questions beforehand. Consider the value of involving all types of interested participants to make the program reality-based—one young man had a bad stuttering problem, but he wanted very much to be on the program, and one young mother needed to hold her baby during the programming. Both were successful.
- ▶ It is suggested that the structure of each week’s program be 30 percent music and 70 percent discussion.
- ▶ The introductory program can be prerecorded.



An entrepreneur in West Africa operates a record store, repairs radios, and hosts an American music radio show.



Youth and Television



Participatory Video: A Practical Guide to Using Video Creatively in Group Development Work (Routledge, 1997, ICE No. CD059) is a resource for anyone interested in using video. This book provides an introduction to participatory video, examples of workshop activities and video production exercises, and project design and implementation for participatory video. Posts may request a copy of this publication from their Information Resource Center.



Youth and Computers



A Volunteer in Tonga created a successful program of computer and Internet courses for unemployed Tongan youth and also created efficient procedures for operating a computer center for youth. The project website contains lessons plans and other information that Volunteers may find helpful: www.geocities.com/wdyhcc/.

Establishing Ground Rules in the Computer Training Room

What follows was adapted from the work of Volunteers and staff in El Salvador.

Volunteers in El Salvador are actively engaged in transferring computer skills to persons in their communities and to their colleagues where they work. Volunteers and staff found it helpful to establish a set of ground rules for persons attending computer training sessions. This can prove especially helpful when working with youth. It may also be helpful to post a set of “rules” in large letters on the wall or outside the door for youth to see before entering the room. An example follows:



Rules

- 1** Clean/wipe your shoes (clean/wipe your feet) before entering the training room.
- 2** Clean/wash dust from your hands before entering the training room.
- 3** Food, beverages, and chewing gum are prohibited in the training room.
- 4** Before the start of and after the ending of each training session, participants must clear trash or papers from the area around the computer used during the session.
- 5** You may not miss more than three classes or training sessions. If you miss more than three classes, you will not receive a certificate/diploma at the completion of the training.
- 6** Each minute you are late is counted. If the total number of minutes you are late add up to one hour (60 minutes), your record is marked as if you missing one entire day of training. (This rule obviously may not be applicable in communities where no one or few people wear watches!)
- 7** Participants/students that receive a score of seven or higher will receive a certificate or diploma.
- 8** Each student/participant will have the opportunity to raise his or her grade/mark/score during the training. You may do this by correcting and resubmitting any homework or assignments. The training instructor will review the corrected assignment and reassign a higher score when appropriate.

Please note that it is not necessary to use the exact wording provided in this example. Adapt a list of rules that are most appropriately applied in your community, based on your audience (Youth? Adults? Girls?), and those best suited in meeting your training needs.

“Lessons Learned” in Starting a Computer Class for Youth

—A Volunteer in Ghana

- You do not need a fully equipped computer lab to get started. Even a few computers can support about 15 students if they triple up. For larger numbers, you can teach the same lesson to different groups, or you can use the classes as a reward for good grades in school. (The best students may do the most with an opportunity to increase their computer literacy.) It is not ideal, but it at least gives them exposure to computers and can minimize any intimidation they might have in working with technology.
- Your lessons can never be too easy. You might think that a keyboard is simple once you explain what it does—you press a key and the letter appears—but what about capital letters? What does Tab mean? And why does the question mark key produce a slash instead? Remember: Although it may be obvious to you, it may not be obvious to your students.
 - Hold a girls-only class. Classes without boys can make more of a difference than you might expect. When boys are not around, the girls ask more questions, help each other more often, and generally seem to enjoy themselves a bit more. They also have the opportunity to draw pictures, sing songs, and do what they consider “girl stuff” without fear of being mocked by the boys.
 - Try to promote any activity that uses the computer as more than just an electronic typewriter.

(continued on page 55)

(continued from page 54)

- **At the end of each lesson, quietly excuse yourself and let the students use the computer on their own, without any teacher looming over them watching for mistakes. These days, computers are quite forgiving about mistakes; they can give a polite error message without crashing (usually). Students are free to make mistakes and correct them independently; the computer is an ideal tool for self-learning.**
- **Beware of cultural traditions that might confuse your students. In Ghana, for instance, students often bring to school a white board, which is a thin piece of wood about the size of a piece of paper, with one side painted white and given a clear varnish. The students write on it in pencil, and erase it using a mixture of soap and water. It saves them money because they do not need to buy paper for scratch work and practice problems. Naturally, these students carried this idea with them to computer class. Before shutting down for the day, they would carefully erase anything they didn't want to save by holding down the backspace key. The instructor had to explain that simply closing the document and not saving the text would erase it instantly.**



Computer training in Moldova



Youth and the Internet



The work of a Volunteer in Eastern Caribbean offers an example of how the Internet can be used to enhance the lives of youth. After successfully installing two computers in the local youth center, the Volunteer made an arrangement with the local telecommunications company to provide free Internet connection. Access to the Internet helped the center in three ways: (1) it enabled the organization to establish links with other youth organizations globally, (2) it provided a tool for seeking various types of assistance for its program, and (3) it allowed for dissemination of information about the organization and its activities.

Another way in which Volunteers use the Internet is to market products produced by youth. In Eastern Caribbean, a Volunteer is helping youth make candles. These youth use the Internet to purchase raw materials, perform market research on candles, and, most important, sell their product to hundreds of new customers around the world.

Finally, a Peace Corps Volunteer in Georgia is using an America Online Peace Pack to assist a local NGO in establishing a Youth Information Resource Center. Future projects include basic computer classes, the creation of a website that provides job and career opportunities in Georgia, and production of a youth-directed newsletter. Another Volunteer in Georgia is helping a local NGO create a project called “Web Page For Kids, By Kids.” Students will be trained to search for information and gather resources to create a website promoting their town.





Group work at an ICT integration workshop in El Salvador

Engaging Young People in General

Volunteers in Guatemala shared some ideas about conducting computer classes for young people. As with many persons new to or unfamiliar with computer technology, the learners were initially apprehensive about using the computers. Volunteers decided to begin with the basics, such as turning the computer on and off, moving the mouse, writing letters and postcards, and playing computer games (math games or Trivial Pursuit with the encyclopedia). Although the students began slowly, with practice and in time they became more comfortable and eager to learn more.

The following is a workshop report about a computer camp for youth in Tonga.

Tonga Youth Computer Camp

OVERVIEW

“Komipiuta oku ‘ofa lahi” (KOOL)—Computers love us a lot!
The KOOL camp is an opportunity for 15 Tongan youth between the ages of 12 and 16 from various islands to experience the joys of computing through hands-on entertainment rather than a purely educational focus. The camp will get them excited about computers and inspire them to learn more.

OBJECTIVES

- Keep the youth entertained and excited about computers.
- Generate interest in future information communication technology learning.
- Make their computer experience at the camp nonthreatening.
- Develop materials that can be used in future computer camps.

PARTICIPANTS

The participants will be youth between the ages of 14 and 16 who have limited computer experience, meaning they are not currently or were not previously enrolled in computer classes. They will be selected from islands where Volunteers are working and can accompany them. Outer island participants will fly to Tongatapu and remain for four days before returning home.

The participants will be chosen by a Volunteer on their island in consultation with camp coordinators using a basic application process. The Volunteer will identify and distribute an application to the youth. Targeted youth will include those with an interest in computers and those who have demonstrated an ability to be active, productive members of their school.

Facilitators would include Volunteers and Tongan counterparts.

SCHEDULE

The camp will be three days long. The facilitators also will attend a one-day training session on the use of software packages, teaching methods, and objectives of the workshop. The guest lecturers will be Tongan professionals from different islands and walks of life who have received secondary education in Tonga.

Camp dates are scheduled to follow the end of school exams and external exams in October.

Participants will stay at a church hall with Volunteers and a female Tongan staff. Breakfast and dinner will be served at the church.

Activities are planned each evening. Arrival evening: Movie *Aladdin* with discussion of how computers were used to make the movie.

Day One: Board game night.

Day Two: A second film with computerized special effects.

Day Three: Talent show.

KOOL CAMP

Time	Activity	Facilitator
DAY 1 – Games		
8:30 a.m. – 9:00 a.m.	Arrival and Registration <i>Participants arrive, check in, and receive name tags</i>	
9:00 a.m. – 10:00 a.m.	Introduction to the KOOL Camp <i>Prayer, an icebreaker, and an overview of camp objectives</i>	
10:00 a.m. – 10:15 a.m.	Tea	
10:15 a.m. – 12:00 p.m.	Introduction to Games <i>Basic games included in Microsoft Windows, such as Solitaire, Minesweeper, Pinball, to get users acquainted with mouse and keyboard</i>	
12:00 p.m. – 1:00 p.m.	Lunch	
1:00 p.m. – 3:00 p.m.	Discussion <i>Large group discussion about what got them interested in computers and what they most like about computers (includes basic discussion on Microsoft Office)</i>	
3:00 p.m.– 3:15 p.m.	Tea	
3:15 p.m.– 5:00 p.m.	Advanced Games <i>First person shooters, Typing Master, and puzzle games</i>	

Time	Activity	Facilitator
DAY 2 – Multimedia		
8:30 a.m. – 10:00 a.m.	Use of Multimedia Devices <i>Use of digital cameras and scanners, ending with a slide show</i>	
10:00 a.m. – 10:15 a.m.	Tea	
10:15 a.m. – 12:00 p.m.	Introduction to Graphic Design Software <i>Basic Adobe Photoshop skills followed by editing time and then another slide show. Youth also will be asked to select pictures they would like to have printed and laminated along with a group picture</i>	
12:00 p.m. – 1:00 p.m.	Lunch	
1:00 p.m. – 3:00 p.m.	Guest Lecturer <i>Professionals involved in the graphic design industry</i>	
3:00 p.m. – 3:15 p.m.	Tea	
3:15 p.m. – 5:00 p.m.	<i>Shrek, the Movie (DVD)</i> <i>This movie is a brilliant display of computer-generated graphics and should be fun for all to watch</i>	



Computer lessons help finance other activities at a youth center in the Pacific.

Time	Activity	Facilitator
DAY 3 Internet		
8:30 a.m. – 10:00 a.m.	Introduction to the Internet <i>Basic history and general information on the Internet; visit websites about Tonga; how to use an Internet browser</i>	
10:00 a.m. – 10:15 a.m.	Tea	
10:15 a.m. – 12:00 p.m.	Internet Scavenger Hunt <i>Pair up and seek information on the Internet based on clues</i>	
12:00 p.m. – 1:00 p.m.	Lunch	
1:00 p.m. – 2:30 p.m.	Guest Lecturer <i>Professionals involved in the Web design industry</i>	
2:30 p.m. – 2:45 p.m.	Tea	
2:45 p.m. – 4:30 p.m.	Surf's Up <i>Set up Web-based e-mail accounts, chat online, and browse the Internet</i>	
4:30 p.m. – 5:30 p.m.	Closing Ceremony <i>Presentation of certificates and laminated group collages</i>	Peace Corps APCD





References and Resources

Website Projects for Host-Country Organizations and Communities: Suggestions & Considerations!

Volunteers in some countries have found that assisting their host-country organizations or communities to develop websites for both primary and secondary projects is a wonderful and highly effective way to showcase projects and accomplishments and to reach out to the rest of the world. Generally for safety and security reasons, Volunteers should not include their personal information on sites designed with or for host-country organizations. When working to develop websites with host-country organizations, Volunteers must comply with the guidelines established by the Baquet Memo from Peace Corps headquarters. These guidelines can be found on the Peace Corps Intranet at the following URL: http://inside.peacecorps.gov/content/documents/news/021501_vol_computer.cfm.

Needs Assessment Model

When posts plan to host ICT integration workshops it is recommended that a survey or needs assessment be conducted several weeks prior to the proposed training dates. The goal of any survey and needs assessment is to assist Peace Corps staff and workshop facilitators in determining participant strengths and needs. Posts that have conducted ICT workshops for Volunteers and counterparts have discovered that implementing a training strategy that best suits the needs of those persons actively participating in the workshop can be challenging, but not impossible. Requesting that participants complete a survey will help post staff and Volunteers work together to provide a workshop that can help support the work of Volunteers and counterparts. Encourage anyone participating in a workshop to complete a survey as accurately as possible.

PARTICIPANT SURVEY AND NEEDS ASSESSMENT Information and Communication Technology (ICT)

Personal Learning Objectives

What do you expect to learn from this workshop? Please list at least three items:

Work and Responsibilities

I am involved in collaborative work with my peers (please circle only one answer):

Regularly	Often	Occasionally	Rarely	Never
-----------	-------	--------------	--------	-------

I am involved in collaborative work with the community (please circle only one answer):

Regularly	Often	Occasionally	Rarely	Never
-----------	-------	--------------	--------	-------

Briefly describe your current duties and responsibilities:

Briefly describe *one* challenge you are having in implementing your current duties and responsibilities:

How will what you learn at this workshop affect or change your work and how you interact with your community?

Please describe at least one activity using computers and/or the Internet that you plan on using with your constituents:

Evaluating Computer Skills and Experience

Please circle one word that best describes your current skills and experience with using computers:

Never	Beginner	Intermediate	Experienced	Advanced
-------	----------	--------------	-------------	----------

Please circle one word that best describes your current skills and experience with using the Internet:

Never	Beginner	Intermediate	Experienced	Advanced
-------	----------	--------------	-------------	----------

Please rate the following statements, circling the most appropriate answer.

1. I have taught someone how to integrate the use of technology into his or her work activities

Regularly	Often	Occasionally	Rarely	Never
-----------	-------	--------------	--------	-------

2. I have taught someone how to use the Internet (find information, etc.)

Regularly	Often	Occasionally	Rarely	Never
-----------	-------	--------------	--------	-------

Circle the response to the following statements that best represents your beliefs.

1. Computers and the Internet are important tools for the professional development of the people with whom I work.

Disagree	Agree	Not sure
----------	-------	----------

2. Computers and the Internet are important tools for my professional development.

Disagree	Agree	Not sure
----------	-------	----------

3. Computers and the Internet can improve local organization, management, and administration.

Disagree	Agree	Not Sure
----------	-------	----------

4. After the workshop, I expect to start integrating the use of computers and the Internet into my work on a regular basis.

Disagree	Agree	Not sure
----------	-------	----------

5. Right now, I have a very clear idea of how I will use computers and the Internet in my work.

Disagree	Agree	Not sure
----------	-------	----------

On a scale of 1-4, please provide a self-assessment of your skill level in using the following programs and tools (1 = low/never use, 4 = high/use frequently with ease).

Microsoft Word	1	2	3	4
PowerPoint	1	2	3	4
Microsoft Excel	1	2	3	4
Internet search engines	1	2	3	4
E-mail	1	2	3	4
Web-page development software	1	2	3	4
Database systems or software	1	2	3	4
Accounting systems or software	1	2	3	4

Computer Hardware

Are you familiar with the different components (parts) of a computer system? (monitor, mouse, keyboard, CPU, printer, etc.) Yes No

Do you know how to set up and connect a computer system? Yes No

Do you know how to turn on a computer? Yes No

Do you know what equipment or conditions are needed for proper maintenance of a computer system? Yes No

What specialized hardware do you know how to use? Please circle all that apply.

Scanner	Digitalcamera	CD-ROM drive	DVD	Zip drive
	Printers	CD-RW	Other	

Computer Software

Are you familiar with the Microsoft DOS operating system? Yes No

Do you know how to maneuver through the Microsoft Windows operating system? Yes No

Do you know how to install computer software programs? Yes No

What specialized software do you know how to use? Please circle all that apply.

Spreadsheets	Digital photography	Desktop publishing
Databases	PDF	Other

E-Mail

Do you use e-mail? Yes No

How long have you used e-mail?

- Less than 1 year
- More than 1 year, but less than 5 years
- 5 years or more

How many e-mail accounts do you have?

one	two	three	four	five or more
-----	-----	-------	------	--------------

What types of e-mail accounts are they? Please circle all that apply.

AOL	MSN	Earthlink	Yahoo	Hotmail
Other _____				

Internet/Web Applications

Which Internet browser(s) have you used? Please circle all that apply.

Netscape	AOL	Explorer	Other? _____ (please list)
----------	-----	----------	-------------------------------

Which search engine(s) have you used?

Yahoo	MSN	Google	Other? _____ (please list)
-------	-----	--------	-------------------------------

Which meta-search engines have you used?

MetaCrawler	Northern Light	No idea
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What do you do on the Internet and how do you do it?

Have you ever created a Web page? Yes No

Do you currently have a Web page? Yes No

Have you had a Web page in the past? Yes No

Was it for personal or professional use? Personal Professional

Which Web-page authoring development tool did you use?

Viruses and Security

What antivirus program do you use?

What security precaution(s) do you take online?

Computer Training Courses Taken

What courses have you taken in IT or ICT-related fields? Please indicate “none” or list courses as appropriate.

Do you have any certificates and/or degrees in IT- or ICT-related fields? If yes, please list them. Yes No

Have you or your community worked with any organizations or institutions concerning IT or ICT training or support? If yes, please list each organization or institution, describe the your training and how effective you think it was.

What strategies would you recommend for bringing computer and/or Internet access to unserved areas?

What types of technology have you used (other than computers) in development work? (Radio, television, audio, video, etc.)

Additional comments or suggestions?



Skills Transfer Workshops: Session Plan Format

Volunteers have conducted useful computer and media interactive workshops, which often include their host country national counterparts and colleagues.

If you are planning to conduct a set of training sessions, it's a good idea to draft a training agenda that includes a list of the classes you intend to teach. For each class, outline the purpose of each session and activities that will take place. Developing session outlines not only assists you in your planning and presentation of the training session, but also helps other Volunteers to conduct the same session. Session outlining helps prevent Volunteers from duplicating work and saves time for future projects.

Session Title: As indicated in the training schedule (if it has been developed or finalized).

Rationale: Provide an overview of the session and rationale.

Time: Indicate how long the entire session should take. Include variations in length due to size of group, entry-level abilities of group, optional activities, etc., if appropriate. Include breaks where appropriate.

Date:

Trainers/Facilitators: Describe what kinds of personnel are needed to lead or assist with the session and the trainer-to-participant ratio, if appropriate.

Points of Integration With Other Sessions: In what other sessions or activities are these concepts and skills introduced or reinforced?

Session Objectives: List the objectives for the session in behavioral terms of your participants: “By the end of this session participants will be able to...” Also list any “key messages” that you hope will come out of discussions or that you will present as a session summary.

Trainer Preparation: List documents that the trainer should read prior to the session. List materials that should be developed or copied, room or transport arrangements that need to be made, equipment requirements, people to contact, etc.

Materials: List any documents that participants should read prior to the session. List handouts that will be provided in class and attach a copy of each to the session plan. List materials (pens, tape, paper, equipment, etc.).

Description of Activities: Develop each activity fully, including each step, timing, examples of processing questions, and options or hints on how the same content could be handled in different situations. Use the 4MAT lesson plan quadrants (motivation, information, participation/practice, application) to ensure that the trainer addresses different learning styles and moves from the abstract to the practical. (See Resources section for 4MAT listing.)

Include points at which the trainer/facilitator checks for understanding and/or skill development, including pre-assessment and post-assessment tools.

Evaluation: It’s always good to give students or participants a training evaluation form to complete at the end of any type of workshop. In a trainers’ evaluation, include any trainer notes and comments that represent feedback from the participants. Make recommendations for improving the session.

**SAMPLE ICT TROUBLESHOOTING
WORKSHOP DESIGN
Peace Corps/Tonga**

INFORMATION AND COMMUNICATION TECHNOLOGY

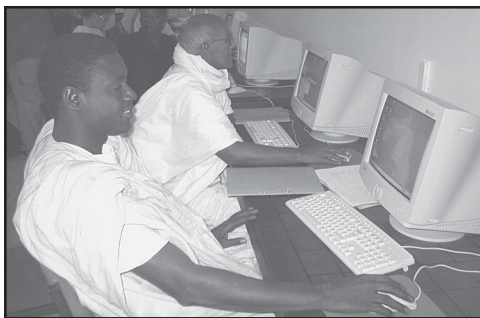
Day 1				
Time	Session	Content	Participants & Location	Facilitator
8:00 a.m.– 9:00 a.m.	Arrival and registration	Participants arrive, check in, get name tags.	Volunteers and counterparts in meeting room	
9:00 a.m.– 10:00 a.m.	Welcome and review of the workshop schedule, questions	Introduce workshop training facilitators, introduce participants.	Volunteers and counterparts parts	
10:00 a.m.– 10:15 a.m.	Break			
10:15 a.m.– 12:00 p.m.	Installing and uninstalling software	Participants will practice installing and uninstalling various software packages, such as Microsoft’s Word, Excel, and Windows.	Volunteers and counterparts	
12:00 p.m.– 1:30 p.m.	Lunch			
1:30 p.m.– 3:30 p.m.	Maintaining your computer and keeping it safe	Participants will discuss ways to maintain their computers and keep the system running properly. “Scan disk” and “defrag” will be discussed and demonstrated; virus protection software will be discussed.	Volunteers and counterparts	
3:30 p.m.– 4:00 p.m.	Free time for participants to check e-mail and surf the Internet			

Day 2				
Time	Session	Content	Participants & Location	Facilitator
8:00 a.m.– 8:30 a.m.	Review and over- view of Day 1	Review the activities covered on Day 1 and preview the agenda for Day 2.	Volunteers and counterparts in large meeting room	
8:30 a.m.– 10:00 a.m.	Troubleshooting printer problems	Discussion will cover most commonly encountered printer problems (paper jams, ink cartridge, ribbon cartridge, printer not recognized by computer, etc.) and possible solutions.	Volunteers and counterparts	
10:00 a.m.– 10:15 a.m.	Break			
10:15 a.m.– 12:30 p.m.	Teaching computer skills	Discuss appropriate methods for transferring computer technology skills to persons who have recently learned to use computers or who have never before used computers. Participants will discuss ways to adapt these skills to teaching someone how to troubleshoot. Participants will prepare 15-minute mini-computer classes.	Volunteers and counterparts	
12:30 p.m.– 2:00 p.m.	Lunch			
2:00 p.m.– 3:30 p.m.	Mini-trouble-shooting classes	Presentation of mini-technology training sessions in groups of 4–5 persons, 15 minutes per group. Participants will evaluate each other and make suggestions for improving training techniques.	Volunteers and counterparts	
3:30 p.m.– 3:45 p.m.	Break			
3:45 p.m.– 5:00 p.m.	Mini-trouble-shooting classes (continued)	Continuation of group presentations.	Volunteers and counterparts	

Day 3				
Time	Session	Content	Participants & Location	Facilitator
8:00 a.m.– 10:00 a.m.	Organizing work and file management	Participants will work on effective file management techniques and discuss methods for organizing their work.	Volunteers and counterparts	
10:00 a.m.– 10:15 a.m.	Break			
10:15 a.m.– 11:45 a.m.	Next steps	Volunteers and counterparts will work together to devise a strategy for integrating technology into their projects. Participants will present their "Next Step" plans to the group. Participants will receive feedback from post staff (APCD, etc.)	Volunteers and counterparts	
11:45 a.m.– 1:00 p.m.	Lunch			
1:00 p.m.– 2:00 p.m.	Top 5 trouble-shooting challenges in Tonga	The top troubleshooting challenges in Tonga will be discussed as well as possible solutions. Participants will discuss methods for obtaining or refining skills that will help them to work through these challenges. Participants will discuss how these competencies could be incorporated into future trouble-shooting workshops.	Volunteers and counterparts	
2:00 p.m.– 3:00 p.m.	Panel of guest speakers	Local computer technology experts will speak to the group about their current work in Tonga. Guest speakers will discuss how their organizations can possibly provide support or participate in collaborative projects with Volunteers and counterparts (if applicable).	Volunteers and counterparts	
3:00 p.m.– 3:15 p.m.	Break			
3:15 p.m.– 3:35 p.m.	Evaluation and closure	Review of workshop, questions, suggestions for future workshops. Closing and presentation of certificates.	Volunteers and counterparts	

ICT Training of Trainers

The Peace Corps' *Information and Communication Technology Training of Trainers* (TOT) manual (ICE No. T0122) is designed to provide the skills and resources needed for participants to train others in basic computer and Internet use. It assumes that the participants know how to use computers and the Internet but need or wish to improve their skills in transferring computer technology skills to others. There are sections in the ICT TOT manual that specifically address using the Internet and resources that can be found on the Internet. Although some participants may not have access to the Internet on a regular basis at their sites, it is likely that the Internet will become more and more relevant and available in many areas in the near future. The ICT TOT manual has two parts—a *Facilitator Guide* and a *Participant Handbook*—and a CD containing both parts so that these materials, especially participant materials, can be modified to suit the specific training before printing.



Training of trainers in Mauritania.

ICT TOT Facilitator Guide and Reference Manual

This script is a detailed guide for trainers conducting the ICT training of trainers for Peace Corps Volunteers during their pre-service training (PST) or in-service training (IST). It outlines the time, sequence, materials, objectives, and content of the TOT. While this TOT is designed to prepare participants to conduct formal training sessions, the skills and materials can be applied to one-on-one situations or training that occurs over several weeks or months in shorter sessions. The accompanying ICT TOT *Participant Handbook* is to be distributed to all trainers and participants, and includes much of the content of the ICT TOT. (See description below.)

The objectives of the ICT TOT are to prepare participants to:

- 1.** Conduct effective computer and Internet training, so as to help others better accomplish their development objectives.
- 2.** Understand and apply participatory training methods that are effective in experiential learning situations.
- 3.** Learn how to tailor a training program to the needs of the audience.



Bridging the digital divide in Central America.

ICT TOT Participant Handbook

The *Participant Handbook* contains the content and resource material for the ICT training of trainers (TOT) for Peace Corps Volunteers during their pre-service training (PST) or in-service training (IST). It is divided into two parts:



Part One contains information to help trainers understand how people learn, and to plan, conduct, and apply computer and Internet training.



Part Two consists of detailed scripts of training modules to be used as training guides and support materials for each module.

Creating Other ICT Manuals

Should you want to create a local ICT training manual, you can modify parts of the ICT TOT manual described above. It is on a CD in each manual. You may want to review what Volunteers worldwide have already produced.

Volunteers in Kenya realized that so many of them were teaching computer skills, regardless of their primary project, that they got together and developed a manual for Volunteers working in ICT. They addressed subjects including how to protect your computer from the ever-present dust of village life, what to do when a nest of termites takes up residence in your hard drive, accessing the Internet without a phone line, and the best places to find replacement hardware in Kenya. One of the biggest problems in Kenya is not the lack of computers but the lack of basic maintenance and repair of computers that are in a harsh and non-electronics-friendly environment.

Acknowledging that many Volunteers are already familiar with the basic operation of hardware and software, they have created a document to prepare Volunteers for the environment in which they will be working and to help them avoid the pitfalls that others have already encountered.

Website Disclaimer

If you attempt to access something and it doesn't work, there are two things to try. First, if the host still exists, poke around a bit—host managers have a habit of rearranging things. Second, go to a search engine and type in key words in the hopes of finding a new address.

If you don't know the exact address for something on the Internet, you can usually guess correctly by using standard names. For example, if you hear about good material on the Web server at UNDP, you can guess at the name <http://www.undp.org> and may succeed. The “*http://*” tells you it is a web resource; “*www*” is a standard name for a Web resource; and “*undp.org*” is the general network name for the United Nations Development Programme.



Computer training in Mongolia

Resources Available Through Peace Corps' Information Collection and Exchange (ICE)

The following resources are available for Volunteers and staff to order by using the ICE reference numbers:

- ***From Workplace to Workspace: Using Email Lists to Work Together.*** Maureen James and Liz Rykert (IDRC). 1998. 58 pp. (ICE No. ED210)

This guide provides practical and useful advice on how to set up and launch an e-mail list, and how to keep it active and vibrant. E-mail provides a quick, reliable, and cost-effective link to the world at large, changing a traditional “workplace” into a “workspace” that crosses even international boundaries. This publication is also available free online in English, French, and Spanish through the IDRC website at:

www.idrc.ca/acb/showdetl.cfm?&DID=6&Product_ID=177&CATID=15

- ***Teaching With the Internet: Strategies and Models for K-12 Curricula.*** Beverly E. Crane (Neal-Schuman Publishers, Inc.). 2002. 381 pp. (ICE No. ED212) Distributed to Peace Corps in-country resource centers only.

This resource provides lesson plans and practical tips for integrating the use of computers and the Internet for K-12 students. Useful tables and charts supplement text throughout the book; there are also forms for lesson and website evaluation, and sample search-planning worksheets for students. A separate chapter is devoted to using the Internet with English as a second language (ESL) students.

- **About Teaching: 4MAT in the Classroom.** Bernice McCarthy (About Learning). 2000. 210 pp. (ICE No. ED187)

This resource assists teachers in developing lessons that address different learning styles.

- **Essential Handbook—Radio and HIV/AIDS: Making the Difference.** Gordon Adam and Nicola Harford (UNAIDS). 1999. 118 pp. (ICE No. HE362)

This is a practical guide to producing the kind of radio programs that will make listeners stop and think about how they can reduce their risk of HIV infection. NGO managers, policy makers, and communication advisors in the field of HIV/AIDS prevention and health education in general will find this handbook a useful resource for using radio as a tool in social marketing and health-related community awareness and mobilization campaigns. This publication is difficult to get in stock in hard copy, but is available for no cost by downloading directly from the UNAIDS website as 1.5 mb Acrobat PDF files:

English:

www.unaids.org/publications/documents/care/general/JC429-Radio-E.pdf

French:

www.unaids.org/publications/documents/care/general/JC429-Radio-F.pdf

Spanish:

www.unaids.org/publications/documents/care/general/JC429-Radio-S.pdf

- **Essential Internet: Basics for International NGOs.** Carlos Parada, Gary Garriot, and Janet Green (InterAction). 1997. 160 pp. (ICE No. RE032)

This simple guide for NGOs about how to incorporate Internet technology into their daily operations explains what the Internet is, gives

information about Internet tools (Telnet, the World Wide Web, and intranets), and provides information on Internet resources for NGOs.

- **Internet Esencial: Conceptos Basicos para ONGs Internacionales.** Carlos Parada, Gary Garriot, and Janet Green (InterAction). 1997. 194 pp. (ICE No. RE031)

Spanish version of RE032, *Essential Internet: Basics for International NGOs*.

- **Information and Communication Technology Training of Trainers: Computer and Internet Use for Development.** (Peace Corps). 2002. 274 pp. (ICE No. T0122)

This publication contains a *Facilitator's Guide and Reference Manual* for conducting training in basic computer use. A *Participant Handbook* is also included. The book includes an introduction to the Internet and sections on how to teach computer skills, training techniques and activities, and other resource materials. This Peace Corps-produced manual is a good "hands-on" computer training resource based on field-tested training. It is also available at no cost through the Peace Corps' online library at:

www.peacecorps.gov/library/community.cfm

- **Gender and the Information Revolution in Africa.** (IDRC). 2000. 247 pp. (ICE No. WD143)

The essays in this book examine the current and potential impact of the ICT explosion in Africa. They focus specifically on gender issues and analyze the extent to which women's needs and preferences are being served. The authors underscore the need for information to be made directly relevant to the needs of rural women, whether in the areas of agriculture, health, microenterprise, or education. This publication is also available for no cost in both English and French through the IDRC website at:

http://www.idrc.ca/acb/showdetl.cfm?&DID=6&Product_ID=471&CATID=15#toc

- **Participatory Video: A Practical Guide to Using Video Creatively in Group Development Work.** Jackie Shaw and Clive Robertson (Routledge). 1997. 304 pp. (ICE No. CD059) Distributed to Peace Corps in-country resource centers only.

This is a comprehensive guide to using video in group development work. Video can be a powerful tool, helping communities, organizations, or other groups to examine the world around them, gain awareness of their situation, and become more actively involved in decisions that affect their lives. The book sets out a complete program for workers in a range of social work, community, education, and health settings. It features more than 60 exercises, explaining clearly the procedure to follow, the time needed, and the value of each activity. It includes practical advice on workshop planning, video equipment and how to use it, teaching technical skills to group members, and running long-term projects.

- **Promoting Powerful People.** (Peace Corps). 2000. 288 pp. (ICE No. T0104)

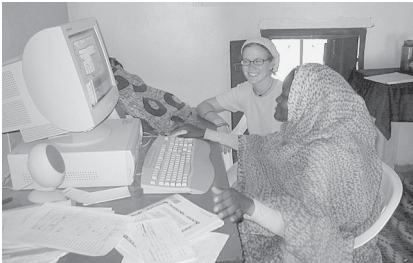
This community development training manual, based on nutrition but with suggestions for modifying content focus, has sections on developing and using recorded materials and producing and broadcasting local radio materials.



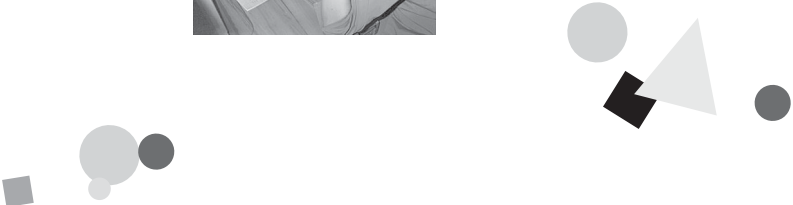
Endnotes

1. From the executive summary of “*Gender, Information Technology and Developing Countries: An Analytic Study*” by Nancy Hafkin and Nancy Taggart, Academy for Educational Development (AED), Washington, D.C.
2. P. Fraser-Abder and J. A. Mehta, “Literacy for All,” pp. 201–218, in “Missing Links: Gender Equity in Science and Technology for Development.” DRC/INIFEM/IT: 1995.





Using ICTs in Mauritania,
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