

High Tech/Grassroots Education: Community Learning Centers (CLCs) for Skill Building

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A few years ago, a group of 64 young men and women in Ghana graduated from a national University of Science and Technology. Each was awarded a degree in Computer Science for successfully completing the program. Throughout their course of study at the University, however, they neither saw nor worked on a computer.

How Could This Be?

At the macro level, the nation was going through an economic crisis that affected all aspects of life, including education. So when the Computer Science Department's IBM 360 broke down, it was not replaced. The cost of a new computer was prohibitive. At the micro level, the impact on students and professors was devastating, resulting in low morale, a curriculum focused exclusively on theory, and a subsequent job search by the graduates that suffered from a lack of practical skills. Most of the graduates ended up at secondary schools teaching mathematics and science. Few landed computer related jobs.

The situation is not much different today. For many forward looking young people in Ghana—and throughout the developing world—access to computers remains elusive despite the importance of 21st century technology for individual and national development. Students of all ages who seek opportunities to participate in the computer age are among the “early adopters,” those who could one day teach and lead others. Regrettably, the lack of learning options not only limits their ability to lead but also often contributes to the insidious brain drain that depletes poor countries of their greatest resource.

A partial yet promising solution to the problem may be the Community Learning Centers (CLCs) that are launching worldwide to provide public access to information and communication technologies (ICTs). Increasingly, training and skill building opportunities also offered at the centers are taking on a life of their own, attracting large numbers of peo-

ple from all walks of life. Two cases in point, both in West Africa, illustrate design and implementation elements that are proving effective for both the CLCs and their clients.

Getting Trained in Ghana

Since November 1998, three Ghanaian NGOs have been managing and running CLCs in Accra, Kumasi, and Cape Coast.¹ The purpose of the centers is to empower individuals and organizations for local development by providing public access—particularly for low-income populations—to the Internet and other ICTs. In just a little over two years, the centers grew from small, relatively obscure offices to popular establishments with their waiting rooms filled. They served nearly 14,000 clients during the first quarter of 2000 alone, 77 percent of whom took advantage of the training opportunities in typing, word processing, spreadsheets, computer literacy, and Internet orientation that are offered in addition to simple access to computer equipment. That's over 10,000 individuals who gained increasingly important computer-related skills. Trainees include students, teachers, and researchers as well as business people, staff from NGOs, medical practitioners, artisans, merchants, local officials, and telecommunications workers. Ranging in age from eight to sixty-seven, with 85 percent between 18 and 40, the vast majority of clients are males. However, female enrollment has been growing steadily, in part due to the CLCs' creative outreach campaigns.²

Most training classes are held three hours/day for ten days. CLC staff, with assistance from a LearnLink Resident Advisor, determine the courses to be offered and develop the curriculum based on local needs assessments. To date, the greatest demand has been for training in computer literacy and word processing, followed by spreadsheets and typing. Internet orientation classes have the lowest enrollment, which the project's Resident Advisor attributes to the higher fees for this course necessitated by connectivity charges. Still, training fees at the CLCs are 10-20 percent lower than those at private computer schools in Ghana. This fall, the CLCs will offer new classes in computer networking, fundamentals of programming, PowerPoint, and advanced

courses in word processing, spreadsheets and database management.

What are trainees doing with their newly acquired skills? Those already employed are finding increasing opportunities to apply their skills on the job. Indeed, employers who are investing in computer hardware and software are paying to send their staff to the CLCs to learn to use the new equipment and programs, and employees who master computer applications increase their eligibility for promotion. Similarly, recent graduates increase their employability, landing jobs in business and government, at communication centers, and in retail shops where they do typesetting and accounting using computers. Others—students, doctors, NGO staff, and parents—want to be able to conduct research, type reports, or connect by email with family and friends.

From a modest beginning two and half years ago, the CLCs have become a significant skill-building force in Ghana, supplementing and extending learning opportunities beyond those available in both public and private educational institutes—and providing more practical, hands-on training than some technical universities. The CLCs are building on their success by branching out into creative new endeavors. Perhaps the most noteworthy to date is their selection as the implementing agent of the Oxfam OnLine Project, which will sponsor computer and Internet training for a minimum of six students from each of five junior high schools. Over a six-month period, the students will team up with counterparts at foreign schools to implement joint projects using the Internet.

It is interesting that, for the most part, trainers at the CLCs are recent computer science graduates from Ghanaian universities—those same talented young people whose course of study failed to include hands-on computer work. With ample opportunity to apply their theoretical knowledge at the CLCs, plus coaching in training techniques, the trainers are able to indulge their enthusiasm for ICTs while sharing their knowledge and skills with others.

Building Skills in Benin

As in Ghana, USAID supports three CLCs in Benin that are administered by the Academy for Educational Development (AED). Unlike the Ghanaian model, where each CLC is run by a different NGO, all three in Benin are operated by the Songhai Center, a world-class sustainable agricultural NGO with farms and now telecenters in Porto Novo, the political capital on the coast, Savalou in the center of the country, and Parakou, the gateway to the north.

The Porto Novo CLC is the most developed. Situated near the entrance to the Songhai Center, which receives large

numbers of visitors from all parts of Africa and the world, “CyberSonghai” is immediately visible to all. The initial demand for services from the community followed a pattern that is becoming typical around the world, with photocopying, typing of resumes and reports, printing, designing letterhead stationary, and laminating of business cards and signs representing the most important sources of revenue for the telecenter. To promote its computer and Internet business, CyberSonghai conducted marketing campaigns and, during the last year, offered training programs first to the 125 students and 110 staff members who work at the Songhai agricultural compound and, later, to the community at large.

Classes tended to be one-day events, covering such topics as Internet Theory and Practice and Introduction to Navigation, with entrepreneurs, high school and university students, and members of NGOs invited to participate. Turn-out was promising, so CyberSonghai staff moved on to design the curriculum for a variety of other classes, including Introduction to Informatics, Keyboard Operation, and Desktop Publishing, all of which are currently being offered to students in the area who receive special invitations to attend.

To attract more women, the CLC designed an “Internet for Women” training and information awareness workshop, which was marketed through invitations to NGOs, announcements on local radio, posters placed around town, and through the Town Crier. Fifty-seven women attended the event, where they toured the telecenter, received an introduction to the services and benefits of the Internet for women in Africa, created emailboxes, visited web sites selected for their usefulness and relevance, and received a list of web sites focused on issues of importance to women.



A training session in Benin

Another recent training designed for Globe Benin, a local NGO network of schools participating in the worldwide *Global Learning and Observations to Benefit the Environment* program, addressed the Internet and the Environment. As part of a Globe Benin plan to create its own web site,

CyberSonghai trained key staff in web site design as well as introduced local participants to useful environmental web sites.

Finally, CyberSonghai hosted a full day workshop in June 2000, for national and regional NGOs in Cotonou, Benin's business capital, and Porto Novo to introduce them to French language sites describing the programs, financial details and application processes for donors that support development initiatives in Francophone Africa. The workshop included IT awareness, an introduction to the Internet, and demonstration and distribution of a previously prepared *Donor Database* floppy disk and CD-ROM.

As illustrated above, the approach to training employed at CyberSonghai involves significant outreach to target groups, with some marketing, promotion and PR thrown in for good measure. The strategy is to spark interest among community constituents so as to develop a client base for the ongoing training programs for individuals and groups that will help generate CLC revenue in the long term.

What Works

The CLCs in both Ghana and Benin are running effective programs to help build ICT-related skills at the community level. Despite the different initial approaches, several design and implementation elements of the two models are similar—and seem to work.

1. First, **creative outreach is necessary** initially to inform and familiarize future clients with the possibilities, potential, and relevance of the CLCs—and ICTs. Special days (or weeks) set aside for women, youth, entrepreneurs, medical practitioners, local officials, and other groups seem to work effectively, as do posters, brochures, radio announcements, invitation letters, and—where available—the town crier to spread the word. Initially, the special events must be offered at no charge to the visitors. While a demand for photocopying and other Kinko-type services already exists, it has to be created for the less obvious benefits of multimedia products and the Internet.
2. Second, experience in Ghana indicates that once it catches on, “they will come”—with one caveat. **Skill building opportunities must be affordable.** Private sector cybercafes and computer training institutes are springing up everywhere (there are 10-15 such offerings in Kumasi, Ghana, alone), so fees of 10-20 percent less than the going private rate are essential.
3. Other early lessons indicate that **aesthetics are important.** In interviews and focus groups at CLCs in both countries, a majority of trainees mentioned the “comfortable surroundings” as a major reason for coming. The CLCs are air conditioned—useful not only for the equipment but also for the attention span in equatorial Africa—and the tables, chairs, curtains and lighting are pleasant. Moreover, the CLC managers, assistants and trainers are friendly, competent, and enthusiastic about their work and their computers. While the accoutrements are not lavish or fancy, the ambiance is pleasant, and the atmosphere is conducive to productive learning.
4. **Also important are the training topics and the program content.** In both Ghana and Benin, most of the training courses were developed locally (though existing curricular materials were no doubt consulted), geared to the level and interests of the prospective trainees, and relevant to local needs. Supporting materials are useful, too, not only for supplementing the local content but also for providing trainees with an opportunity to use a CD-ROM, for example, or to skim through a mainstream computer magazine.
5. Everyone knows that the **personality and approach of the trainer can make or break a training session.** In Ghana and Benin, the trainers made up for a lack of experience with competence, enthusiasm and an obvious delight with the subject matter. Each CLC in Ghana employs female trainers as well, which female trainees commented on favorably.
6. A limited number of computers requires small group training in Ghana, with no more than four to six people participating at a time. Obviously, this **enables individualized attention and personalizes the experience**, which impacts it positively. In Benin, large groups are accommodated with projectors and screens, which works for one-day events. Training rooms for small groups are also in place at the CLCs in Benin, and class size is controlled when regular sessions are ongoing. Of critical importance, of course, is the necessity for every trainee to have constant access to a working computer.
7. Other considerations include **the length of training classes**, both individual sessions and the program as a whole, which should be neither too long nor too short. Convenient hours are important as well. In Cape Coast, Ghana, for example, trainers sometimes arrive as early as 7:00 a.m. to take advantage of better access to the telephone connection to the ISP, and in Kumasi the staff stay regularly until 9:00 p.m. to accommodate clients who come after work or school.
8. Finally, visitors to introductory outreach events leave with a floppy disk or a CD-ROM, **a give-away that helps to make tangible the virtual world** to which they

were introduced, and upon successful completion of coursework, each participant receives a certificate designed and printed at the CLC.

What Doesn't Always Work

A host of challenges greet CLC staff every morning. Sometimes the electricity is off, or the telephone connections are slow or constantly busy, precluding or interrupting connections. As the CLCs become more popular, they also become victims of their own success, with growing numbers of people waiting longer and longer to use one of the limited number of computers. Cash flow is a problem, too, especially at first when the CLCs are not yet generating sufficient funds to cover their expenses, the host NGO does not have reserves to carry the CLC alone, and salaries for trainers and managers are low. In the latter case, getting and keeping skilled staff can prove difficult, particularly when private sector companies pay more and have growing needs for computer literate personnel. Equipment malfunctions cause problems, too, especially if the computers are old or spare parts scarce. Indeed, a sufficient number of state-of-the-art multimedia, networked computers—accompanied by laser printers (preferably color), rewriteable CD-ROMs and Zip drives, educational software on CD-ROM, and books and subscriptions to computer magazines and other supporting material—is perhaps the most critical requirement for running an effective CLC. The operation is difficult in the best of circumstances, but doing so in low-income communities in developing countries can try the patience of a saint. If the hardware is

faulty, too, the endeavor may be doomed before it ever gets a chance to succeed.

Early Impact Returns

The CLCs in Ghana and Benin are providing practical, hands-on, and affordable training to thousands of people from all walks of life, who are developing skills that simply cannot be acquired anywhere else—even at some of the major universities. Individuals participating in the training perceive it to be highly empowering, due not only to the employment opportunities it opens up but also to the ready access to global information and networking it provides. In the long term, it may have the same empowering effect on low-income communities as a whole. For now, the training programs are clearly meeting a need and helping to satisfy a growing demand that remains otherwise unfulfilled.

Beyond the impact on individuals and communities, the operation of CLCs is having an interesting impact on NGOs as well. Their entry into the telecenter business illustrates a growing trend in the NGO world toward a kind of “social entrepreneurship” that is neither strictly non-profit nor for-profit. Generating revenue to run a business is a relatively new undertaking for most NGOs, especially small, indigenous groups in developing countries. The NGOs in Ghana and Benin deserve credit for their courage in taking the risk on behalf of their constituents—and congratulations for making it work.³

¹The CLCs are supported by a grant from the U.S. Agency for International Development (USAID) and implemented through the LearnLink project, administered by the Academy for Educational Development (AED).

² For more information on ICTs and gender and on the outreach to women undertaken in Ghana, See *A High Tech Twist: ICT Access and the Gender Divide*, *TechKnowLogia*, Vol. 2, Issue 2, March/April 2000.

³ To learn more about the CLCs in Ghana and Benin, visit their web sites at the following URLs: The Central Region Development Commission (CEDECOM), Cape Coast, Ghana (<http://www.cedecom.org/>), Partners for the Internet in Education (PIE), Accra, Ghana, and the Center for the Development of People (CEDEP), Kumasi, Ghana (<http://www.members.tripod.com/cedepghana>). In Benin, see the Songhai Center's web site at <http://www.songhai.org>. To learn more about the CLC project in both countries, see LearnLink's web site at <http://www.aed.org/learnlink>.