

YouthLens

on Reproductive Health and HIV/AIDS

Information and Communications Technology

Web sites, CD-ROMs, and on-line educational projects hold promise for youth.

Technology resources increasingly link professionals working with reproductive health and HIV prevention programs in developing countries. These same resources – e-mail, CD-ROMs, listservs, the Internet, radio, and television – hold great promise for reaching youth as well.

Young people typically embrace the use of technology for entertainment, learning, and communication when given access to these resources. Although there still is a considerable lack of access to computer technology in developing countries, investments in schools have enabled a growing number of students to use CD-ROMs, the Internet, and e-mail as learning tools. To reach out-of-school youth, some programs are using radio, television, and other technologies.

Small projects have begun to demonstrate the potential value of using technology with youth reproductive health and HIV prevention projects, but more research is needed before specific types of programming can be recommended. An analysis of four information and communication technology (ICT) projects in Latin America found that initial enthusiasm for technology led some to see technology itself as the goal, “rather than viewing technology as a strategy for reaching a clearly defined goal.” It emphasized, “Using technology should be a means to an end and not the end in itself.”¹ The study identified several key questions for programs and researchers:

- Can technology projects improve sexual and reproductive health for youth?

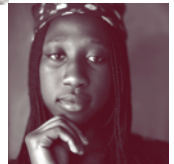
- What are the advantages and disadvantages of the technologies?
- What is the potential of technology projects to generate program income?

As the number and scope of ICT projects for youth expand, these questions demand more scrutiny. In addition, while computer technologies expand access to information, more attention is needed on the sources and accuracy of the information. The allocation of resources to technology also raises concerns, since research has not yet shown that technology itself necessarily contributes to better health outcomes regarding HIV/AIDS.²

Improvement in knowledge and attitudes

Some studies have shown that Web-based projects, CD-ROMs, and other types of ICT can lead to changes in young people’s knowledge and attitudes about sexual and reproductive health issues. Studies have not yet assessed changes in behavior based on the use of technology.

In Chile, a CD-ROM called “Rock and Male Roles” was designed to improve the knowledge and ability of young men to perceive the influence of gender roles in sexual and reproductive health. A pre- and posttest among 400 male students from four secondary schools found that after using the CD-ROM, the proportion who felt that men can change aggressive traits and approaches to sexual activity increased from 44 percent to 88 percent.³





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A project called AIDSWEB led by the World Bank in seven African countries addresses HIV prevention by working with secondary school students who have access to Internet learning centers in schools. The project focuses on an e-mail-based, on-line education module series, with a reproductive health specialist serving as an on-line facilitator for students and teachers. The participants work through five modules: cultural exchange, basic facts of HIV/AIDS, importance of HIV/AIDS, challenge of HIV prevention, and social action. The modules generally take about a month each to complete. The project emphasizes exchange among the youth participants themselves; the on-line facilitator and the lead classroom teachers help broaden the on-line discussion through comments and reflections drawn from the youth exchanges. Participants explore myths and misunderstandings, conduct research, and discuss how they can prevent HIV in their own lives and communities.

An evaluation of the project in Botswana, Ghana, South Africa, Uganda, and Zimbabwe compared the knowledge and computer use of AIDSWEB participants with nonparticipants of similar background in nearby secondary schools. AIDSWEB students were almost twice as likely to identify correctly all methods of HIV prevention and transmission (75 percent compared to 41 percent) and had much more access to computers than the control group, with boys having more access than girls. The study used questionnaire responses from 361 participants, plus interviews with key stakeholders.⁴

Advantages and disadvantages

Computer technology appeals to youth, has a high potential for use, and can provide a lot of information quickly and privately. But there are disadvantages as well, such as difficulties in finding appropriate Web sites and lack of computer access.

CD-ROMs and facilitated on-line discussions often engage the user with cartoon characters, games,

and other devices to keep youth interested. One new sexual health-based computer game attracted 250,000 players, followed by e-mail responses from game players indicating they did learn from playing the game. A formal evaluation of the project has not yet been done.⁵

Web sites with sexual health information appeal to youth. In focus groups with 287 youth (ages 14 to 15) in the United Kingdom, 62 percent said they would use a Web site on sexual and reproductive health, and 70 percent said they would e-mail a question to a health care professional and receive an individualized response. Youth perceived this method as a way to reduce embarrassment.⁶

A growing number of young people in developing countries, especially urban areas, are using the Internet. In population-based surveys conducted in 2003, YouthNet found that in Kathmandu, Nepal, one of every eight girls and one of three boys had used the Internet; in Sao Paulo, Brazil, one of three girls and two of five boys had used it; and in Dakar, Senegal, about a quarter of the girls and a third of boys had used it. These surveys of youth ages 16 to 25 were part of an evaluation of a global media campaign on HIV prevention conducted by MTV Television, which linked television, radio, and on-line communications in reaching youth. The campaign, called “Staying Alive 2002,” linked the television messages to the campaign Web site, which provided information and a means for youth to send comments through e-mail.

Web sites may not lead youth to the most helpful information, however, unlike guided on-line discussions and CD-ROMs. When the Demographic Association of El Salvador (ADS) and the Guatemalan Family Welfare Association (APROFAM) developed cyber centers for youth in their office libraries, both programs were concerned that some Web sites containing key words associated with sexual and reproductive health would not be

appropriate. At ADS, the staff catalogued suitable Web sites from United Nations agencies, religious organizations, and others, and they installed software to block access to pornographic sites. Still, the youth were directing their searches on the Web.

Access to appropriate information is not easy. In one study, after researchers entered six key words on adolescent sexual education into three search engines, nearly half of the sites identified were either umbrella sites with lists of links or sites containing only news articles. "Difficulty finding reproductive health material on the Internet points to a need for better cataloguing of educational information on-line," the study concluded.⁷

To help youth find appropriate information in a presentation and language that will attract them, various groups have developed teen Web sites. YouthNet has identified about 15 of the most useful sites designed to answer young people's questions on an easy-to-use page on its Web site (www.fhi.org/en/Youth/YouthNet/ResForYouth/index.htm). One site developed in Zimbabwe, for example, includes a list of common questions and allows a cartoon character named "Auntie Stella" to provide reassuring answers with correct information (www.tarasc.org/auntstella/index.html).

Programs use Web sites and other means to reach more targeted audiences as well. A group called Youth Peer Education Electronic Resource (Y-PEER) has trained youth peer educators in 27 countries in Central and Eastern Europe, the Baltic area, and Central Asia in both HIV/AIDS and using electronic means to reach more youth; it shares information on peer education in the various countries through its Web site (www.youthpeer.org). Sponsored by a United Nations (UN) interagency group, Y-PEER is now working to expand training through a CD-ROM curriculum being developed through several UN agencies and YouthNet.

Beyond education

Beyond its use as an educational tool, ICT can sometimes spur social action in community settings, generate income, and teach youth livelihood skills. In the AIDSWEB project, for example, students received small grants from the World Bank's Africa Region to implement community-based activities based on plans developed through the on-line social action module. Zimbabwe participants took HIV/AIDS information to a rural school that had no computer access, while a group in Ghana developed a voluntary HIV-testing program combined with a village clean-up campaign.

TIPS FOR DEVELOPING A YOUTH INTERNET OR E-MAIL INTERVENTION

Appropriate technology

- Assess computer capacity to determine degree and speed of Internet connections
- Use CD-ROMs if Web-based applications are not accessible
- Develop Web pages with few applications and graphics to minimize user time in downloading
- Develop e-mail projects, which require little computer capacity and offer numerous programmatic opportunities for intercultural exchanges and networking

Sustainability and scalability

- Incorporate opportunities for local facilitators, including adults and youth, to learn how to carry out project activities
- Train selected participants to provide technological backup
- Explore opportunities for transferring project "ownership" to local stakeholders

Equality

- Extend projects to those with limited or no computer access (e.g., participating students can adopt a neighboring school with outreach activities)
- Promote equal participation of males and females

"Net-iquette"

- Guide participants in understanding the difference between public and individual postings to a project's listserv
- Minimize the size of e-mail attachments
- Be cognizant of cultural sensitivities

Accessibility

- For school-based projects, be aware of rigid timetables for an on-line or e-mail project
- Try to have the project included in the curriculum of a school subject or structured extra-curricular activity (e.g., computer or HIV/AIDS awareness clubs)
- Seek proactive support from stakeholders such as a school headmaster or principal

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AIDSWEB also sponsored 150 youth from 60 schools to participate in a week-long workshop on Web site design. The workshop promoted team building; helped participants gain Web site design experience as a potential livelihood skill; and created linkages among schools, community, and national organizations. Thirty-eight of the participating schools produced new Web sites capturing best practices, games, interviews, and youth perspectives through poetry, drama, and art.⁸

Some projects have explored the potential of computer services or youth-developed cyber cafés generating income for broader program goals. The initial experience of ADS in El Salvador indicates that ICT for income generation requires careful planning, including a market analysis. In one year, the amount of income generated by Internet fees more than doubled (from about U.S. \$2,500 to U.S. \$6,000), but competition from a neighboring independent cyber café began to affect computer use and income, forcing the project to adjust its rate structure and income goals.⁹

While the digital divide between developed and developing continues to be enormous, reproductive health and HIV prevention projects in particular can capitalize on the increasing investment in technology in schools throughout the developing world. The Ministry of Education in Botswana, for example, has built computer labs for all 205 senior secondary schools and 27 junior secondary schools and is equipping them with state-of-the-art computer equipment and Internet connections.

In areas that continue to lack computer access, information on reproductive health and HIV prevention is being disseminated through personal communication, radio, television, and other approaches. Mobile vans with computers and Internet access, radio programming through satellite receivers, and school-based computer centers are among the growing number of innovative technology projects being initiated.¹⁰

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