

COMMUNITY LEARNING CENTER NETWORK

2005 COMPUTERWORLD HONORS CASE STUDY

EDUCATION & ACADEMIA

INTERNET-LINKED LEARNING CENTERS ADDRESS SOCIAL INEQUITIES BY BRINGING QUALITY EDUCATION TO LOW-INCOME AND ISOLATED COMMUNITIES TO IMPROVE LIVING STANDARDS, STRENGTHEN COMMUNITIES, AND INFLUENCE NATIONAL DEVELOPMENT. [20055274]



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SUMMARY

Internet-linked learning centers address social inequities by bringing quality education to low-income and isolated communities to improve living standards, strengthen communities, and influence national development.

APPLICATION

The Instituto Tecnológico y de Estudios Superiores de Monterrey (Monterrey Tec) is a private, non-profit university system with 98,000 full-time students on 33 campuses in 21 Mexican states, as well as centers in Europe, Latin America, and North America. The university, however, is looking beyond the traditional centralized approaches to education and training and bringing unique educational opportunities to low-income and geographically isolated communities through a network of community learning centers.

Mexico and other countries of Latin America have deep and growing concentrations of poverty. From 1980 to 2003, the number of poor grew from 136 million to 225 million. Income levels in the region correlate directly with educational levels. The average length of formal education in Mexico is 7.67 years, but it varies widely by state. In Chiapas, the poorest state, where the average annual income is approximately USD 2,000, the average person spends 5.7 years in school. In Mexico City, the average income is USD 14,000 and the average education is 9.7 years. Mexico has seven states where the average education is less than 6.6 years. The same relationship between low income and lack of education exists throughout Latin America. Educational and economic inequalities are evident as well in the United States, where the Hispanic population has grown 58 percent in 10 years. Forty-percent of Hispanic children living in the U.S. are raised in poverty, and 37 percent of Hispanics do not finish high school, according to the U.S. Census Bureau in 2002.

Community Learning Centers stem from the research done by Monterrey Tec to address the problems of poverty and promote social mobility and social inclusion through the combination of information technology and education.

The objectives of the Community Learning Centers are to:

- Provide quality education to low-income and geographically isolated regions in order to support communities
- Empower people to develop new skills that can enhance living standards and influence the nation's development.
- Participate in the formation of the social consciousness of the future leaders
- Promote the human, social, and economic development of communities

The first Community Learning Center was established in February 2001. Today there are Community Learning Centers in nearly 1,000 communities. Some are located in the communities of indigenous people, where the problem of poverty is extreme. There are centers in urban areas as well as rural communities. Most centers are located in Mexico, but there is a growing number in the United States, as well as an interest in extending the influence of such social programs to Latin American countries. Community Learning Centers are equipped with computers, linked to the Internet via satellite or dialup connection, so that people can access educational opportunities without leaving their communities. Programs available through the Monterrey Tec web portal cover all aspects of personal and community development.

The network of Community Learning Centers is expanding rapidly through alliances between Monterrey Tec and a wide range of private and public sector organizations.

BENEFITS

Individuals benefit personally from the Community Learning Centers. They develop the skills and knowledge necessary to improve their standard of living. Farmers can learn how to improve crop yields. Migrant workers in the United States can keep up with their education as they move from place to place. An aspiring shop owner can learn how to get financing for her business. A man who had to leave school to work can learn to read. People in remote areas can get the education they need without having to leave their families and communities.

Families are strengthened through online resources for parents. Communities are strengthened as the centers help agents of the community develop leadership and professional skills. Support for entrepreneurs contributes to job opportunities in the community.

Nations benefit. Community Learning Centers started as way to help Mexico overcome poverty and become more competitive in the world economy. The CLC model is being adopted in other nations as well. CLCs help people learn new skills that influence the nation's development.

The world benefits. The purpose of the Community Learning Centers is to produce educational reforms to reduce social exclusion and promote social mobility. This in turn will contribute to a more stable world.

IMPORTANCE

The idea for the Community Learning Centers started with the campus network at Monterrey Tec. The university created programs that enable students and faculty to go online to collaborate, get the latest course news, upload or download homework, and access other resources. The Institute's 7,800 instructors and 23,000 employees also use the Web to manage, collect, and organize assignments, post grades, and complete administrative tasks.

"We try to take full advantage of the Internet and networks to be more efficient from an administrative standpoint and to leverage human resources," says Dr. Rafael Rangel Sostman, rector for Monterrey Tec. "The students can share their ideas, and professors can share projects. Our educational model uses technology to enable the didactic processes that allow us to work collaboratively and solve problems." The Institute has addressed its communications requirements with a Cisco-based virtual private network (VPN) that hosts data, voice, video, and Web-based course-management applications. Innovative use of technology for education is not limited to enrolled students. The university uses its network architecture for the Community Learning Center network, which delivers Web-based education to communities throughout Mexico and in other countries.

Monterrey Tec provides a wide range of academic programs designed to address the needs of individuals and their communities. The university also provides free tutoring for many of the programs. The tutors are vital to the success of the CLC program because they help people learn how to become lifelong independent learners. The academic programs and the tutoring support are the lifeblood of the CLC. The information technology is the medium for bringing the academic content and the tutoring out to the people. Through the technology infrastructure, people denied access to traditional education for reasons of geography and economic circumstances attain the knowledge and skills to improve their lives and their communities.

The CLC program consists of the following integrated components:

- The Web-accessible learning environment, including academic content, strategies for teaching and learning, and a digital library
- Constant guidance for users through specialized online tutoring
- Computers in the centers with Internet links via satellite or dialup connection
- A Web-based platform for academic administration
- A promoter and facilitator in every center who ensures that people know how to use the technology and access the programs and content
- Alliances with public and private sector partners to develop Web-based content, provide the technology, and support the centers with volunteers and funding
- Guidance and oversight by regional councils and local committees for sustainability of the centers

ORIGINALITY

The Community Learning Center network is unique in the comprehensiveness of the opportunities provided for education and growth. The network supports all agents of change for a strong community. For individuals, the network provides basic skills programs in reading, writing, and mathematics. Students of any age can continue their elementary education and get a secondary diploma through the CLC. Formal bachelors, masters or doctoral programs offered at Monterrey Tec are available through the CLC network as well. The network also supports families, providing access to courses, news, and forums on parenting as well as opportunities for parents to share information with each other. The network contributes to the economic development and vitality of communities by supporting local entrepreneurship. It provides general courses on business law, accounting, developing a business plan,

obtaining financing, and market research. Courses are also offered on stewardship of environmental resources, workplace health and safety, farming, animal husbandry, and many other practical subjects. The network also strengthens communities by providing continuing education for educators, journalists, health care providers, and people in public service.

The CLC network creates a unique relationship between the university and the community. Monterrey Tec develops the programs and provides online tutors, while the communities own and operate the centers for themselves. The university provides the organizational model for setting up the center and training for the coordinator, while the community is responsible for equipping its center and running it day to day. Many other partners are involved as well. Government agencies and various non-profit organizations provide funding and other support. Private companies also assist communities with donations of equipment or services. Monterrey Tec shares ideas with communities for forming partnerships and getting grants to sustain their centers.

By empowering communities through open access to education, Monterrey Tec hopes the Community Learning Center will become as integral to the life of the community as its churches, schools, and other civic institutions.

The CLC Network is also unique because it extends beyond national borders. Any community that wants a center can have one; all that is required is a memorandum of understanding with Monterrey Tec. In addition to the hundreds of centers in Mexico, there are also centers in United States. Some Latin American countries, particularly Chile and Colombia, are interested in creating Community Learning Centers as well. Centers in Mexico can receive government support. Centers in other countries are established through non-profit community organizations.

Programs have been instituted in other countries to address various community needs through a combination of:

- Access to information through the Internet
- Computer training
- Support for entrepreneurs
- Research
- Health
- Formal education
- Creation of educational content
- Strategies for community development

The Community Learning Centers network is the most ambitious of them, addressing all eight of these factors.

SUCCESS

The Community Learning Center network is experiencing rapid and accelerating growth. The first center opened in February 2001. By 2003, there were more than 400 centers, two-thirds of them located in indigenous communities in Mexico, where poverty is the most extreme. Today, at the end of 2004, there are nearly one thousand centers. Seventy-three of the centers are in the United States, in Florida, Texas, Arizona, North Carolina, and Georgia, meeting the needs of Spanish-speaking immigrants and migrant workers. Monterrey Tec is working with non-profit organizations to open centers in California, New York, and Chicago, Illinois in 2005. Centers are being planned in five Latin American countries also.

By the end of 2004, approximately 25,000 people were using the services of the centers. More than 6,000 students were taking advantage of the online tutoring services that are offered with certain courses. That number is expected to double as Monterrey Tec begins offering these tutor-assisted courses more frequently.

In Houston, Texas, Monterrey Tec and the Mexican Institute in Houston collaborated to open a center and within a year, due to enormous demand, there were 12 centers serving the immigrant community of the Houston area. The age of the students using the centers ranges from the 15 to 84 years. The idea is to take this program to all areas of Houston and its environs.

The rapid growth of the CLCs has come largely without formal marketing or promotion, mostly through word of mouth, speaking engagements, and news articles about the centers.

Plans for continuing the success of the Community Learning Center network include the following:

- Increase the number of higher education programs available to the community
- Increase the number of extension courses offered
- Continue to support formal education through more courses
- Add new links and resources to enrich "Window to the World" web portal
- Complete the creation of the Digital Library for the users of the CLCs
- Develop educational content for Hispanic communities in the United States
- Expand the CLC Network to five Latin American countries

The Monterrey Tec is continually expanding its range of alliance partners, including

- Universities to develop content and share information
- Private sector and non-governmental organizations in Latin America to expand the network.
- Sponsors in the public and private sector to broaden and enrich educational content

The CLC network is a success because of the difference it makes in the lives of the individuals it reaches. For example, one CLC user wrote:

“I write to you, to be thankful to the Monterrey Tec and the CLC (Community Learning Centers), for giving the opportunity of these courses within reach of all. My experience in this course that I have almost finished was wonderful, since I had never had the opportunity to take one as complete as this. In my opinion, I liked this course very much because it was very dynamic and creative, and the advantage was that I could practice it anywhere, either in the school, the library or in my house, thus breaking the barriers of the time and the space. I use it a lot, from making letters, publicity, cooking recipes, inventory control and expenses of my small sales business, to being able to communicate with my loved ones by e-mail. This course covered all my expectations, . . . and I am ready to begin the following course.” [Translated from Spanish]

The CLC has also enabled an unmarried mother and agriculture worker who moved from Mexico to Florida to envision a new life.

"From here to five years, I imagine myself in another atmosphere, working as a secretary, and my goal is to learn English to combine it with computation. That is what I am learning." [Translated from Spanish]

DIFFICULTY

The Community Learning Center concept was created to improve access to education. Every community that wants a center should be able to have one. While the Internet enables distance learning, several challenges for creating sustainable centers had to be met. Communities with the greatest need for a center often lack the required infrastructure. Some are in isolated areas with no Internet service. Monterrey Tec advises communities on what they need to set up and operate a center for themselves. The university provides detailed information on the requirements for physical space, utilities, the computer equipment, and Internet service. The Mexican government contracts with service providers to extend Internet service either by satellite or dial-up connection to areas for the first time. Monterrey Tec also helps communities get grants from government agencies and non-profit organizations to purchase the computer equipment.

The Community Learning Center program depends on computers and the Internet, but most of the people it serves have never seen a computer or used the Internet before. To solve this problem, every center must employ a coordinator who teaches people how to use the computers and is available to answer their questions. The coordinator is responsible to solve technical problems and keep the infrastructure working.

Another challenge is the distance between the centers and Monterrey Tec. The coordinators are the liaison between them. On the community end, the coordinator explains the resources available and helps individuals find the right educational programs to meet their personal goals. On the university end, the coordinators are Monterrey Tec's eyes and ears in the centers, providing the feedback needed to ensure that the educational programs offered continue to meet community needs.

The most important challenge is to change the traditional paradigm of education that places responsibility for the learning process on institutions and professors. At the CLC, students must lead their own learning process, deciding what, when, how and where to learn. They must learn how to learn by themselves and take responsible for their learning.