Executive Summary:
Measuring Outcomes of Digital Divide Investment to Community Technology Centers[1]

The extent of the digital divide in Illinois has not been well documented; however, it is generally agreed that the term "digital divide" cannot only refer to access to the Internet, but also to the existence of the gap between people who can effectively use new information and communication tools, such as the Internet, and those who cannot. The Illinois Commerce Commission – Community Technology Fund has provided financial investment to underserved communities to attempt to mitigate the disadvantages of being on the "wrong" side of the digital divide. The fund provides state-level support to the Connecting-my-Community project for advanced telecommunications technologies for community technology centers serving underserved populations in urban and rural areas.

Digital Literacy Survey

Project stakeholders were asked to evaluate the importance of different computer and telecommunications skills in contributing to digital literacy. The top 10 skills stakeholders identified to be important are:

1. Send or read email
2. Do online research for school or work
3. Look for a job online
4. Use word processing software
5. Read a newspaper or magazine online
6. Install software
7. Look for a product online
8. Use the Internet to look up health or medical information
9. Find financial information online
10. Use the web to look up local community events (movies, festivals, sports)

Focus Group Discussions

Understanding the nature and extent of the digital divide has been the focus of much policy attention. Programs nationally and at the state level have target digital divide elimination strategies as part of their economic development and education agendas. Defining the "digital divide" has not been consistent. Whereas in the past, the digital divide was defined in terms of people having access to the wires and hardware of communications and information technologies, while now, it has become increasingly more evident that the hardware piece of the digital divide is a small piece of the puzzle. As part of the evaluation

effort of the CONNECTING MY COMMUNITY Initiative to eliminate the digital divide, developing a relevant and meaningful definition became the foundation of the evaluation.

The stakeholders invited to participate in the focus groups were asked 7 questions exploring the meaning of digital divide and the strategies necessary to mitigate the inequality of access to digital technology. The principal goal of the focus group discussions included: 1) defining how stakeholders define the digital divide; 2) identifying the obstacles for bridging the digital divide; and 3) exploring the role of Community Technology Centers in bridging the digital divide.

Key Observations

The Focus Groups made the following key observations:

- It is important for all Americans to participate in the "knowledge" economy. Improving basic literacy skills and enhancing those skills people need to effectively use communications and information technologies will contribute to a more healthy and vital economy.

- Eliminating the digital divide cannot only focus on funding hardware or the physical infrastructure. This is mostly a human infrastructure issue where investment needs to target building human capacity to effectively use the communications and information technologies.

- Urban and rural communities face similar challenges as they work to eliminate the digital divide. Although rural places have additional difficulty in providing access to regions with low population density, it is often difficult to install physical infrastructure in heavily populated areas. Furthermore, urban and rural places must equally address the cultural aspect of the digital divide – low skill levels, inadequate access to funding, fear of change, etc.

- The term digital divide extends beyond individuals, but to organizations, governments and businesses not able to effectively use communications technologies.

- People, organizations, governments and businesses don't always appreciate the need to have access to telecommunications. They have not perceived that telecommunications can meet or has the potential to meet their needs for communications, business, education, entertainment, etc.

- To help people use communications and information technology more effectively, focus group participants identified several key elements:

  1. Develop culturally specific content, if many people don't realize technology's benefits it is because they have yet to find compelling content. Make the technology relevant.
  2. Create more awareness about the potential benefits of access to communications and information technologies.
  3. Provide funding to programs that focus on building literacy and other user skills.

4. Training focused on the basic needs of the underserved population – finding better jobs, economic development, etc.
5. Investment into communications and information technology must be a priority for local leaders, organizations and businesses.

⬤ The digital divide is like a "moving train" where some people will arrive sooner than others. Not all people will have access to leading edge technology and as technology innovation continues to move at an increasing rate, there will always be people who are behind.

⬤ Training programs addressing the development of basic skills; specifically those to help users become more comfortable with using hardware and software.

⬤ CTCs need to provide training on building basic literacy skills and job readiness.

⬤ Measuring the impact of CTCs needs to include tracking use, as well as, measuring outcome changes on CTC users (changes in self-esteem, knowledge, quality of life) and the community it serves.

"CTC is like a 7-11, where everyone feels comfortable going in and it offers one-stop shopping."

How Stakeholders Define the Digital Divide

The objective of the focus group discussions and the supporting activities was to enable stakeholders to create a shared understanding of what is the digital divide that can be used to build an evaluation strategy of quantifiable performance indicators to measure how well this program contributes to eliminating it. The stakeholders presented many different, and often complementary perspectives, about how they perceive the existence of the digital divide and what strategies are needed to minimize the gap between people who have access and who can effectively use communications and computer technologies and those who cannot and who do not have access.

Defining the digital divide focused on the inequality of human capacity and digital literacy skills. Furthermore stakeholders emphasized that the definition of the digital divide extends to not only individuals without access or skills to use communications and information technologies but also to businesses, schools, organizations, and governments. Eliminating the digital divide is about accessing the Internet and its resources; about using telecommunications and computer technology to communicate and create; about creating and building knowledge to effectively function in today's economy; and finally it is about creating a better community and improving the quality of life for all Illinoisans.

Implications for Program Evaluation

The discussions clearly implied that emphasis should be less about measuring the elimination of the digital divide and more about measuring change in the cultural aspect of communications and information technologies adoption. Specifically focusing on 1) the diversity of users; 2) knowledge gain; 3) building user self-esteem and comfort level in using computer and telecommunications technology; and 4) the community provides services to all users with respect to business, education, government and social services.

1. **Measuring the Diversity of Users**
    Traditional digital divide elimination strategies have targeted low-income populations and minorities. The focus group discussions validate the importance of these strategies and further emphasize targeting computer literacy programs that meet the needs of people searching for jobs, seniors, disabled, youth, farmers, entrepreneurs, businesses and institutional users working in organizations not yet computer ready.
    Performance Indicators:
    - Number of participants in classes categorized by age, life stage, education level and income;
    - Number of participants with a physical or mental disability;
    - Number of organizations whose staff is participating in computer literacy training;
    - Number of courses (and number of participants) offered to meet the functional needs of business entrepreneurs, farmers, not-for-profit organizations, etc.

2. **Measuring the Change in Users' Literacy Skills**
    Measuring the knowledge level of participants' computer literacy must be benchmarked and monitored over the extent of the project. The digital literacy survey can be used as a guide to assess mean change of people's skills.
    Performance Indicator:
    - Average scores on participant knowledge assessments measured every 6 months.

3. **Measuring Improvement of Users' Self Esteem and Self Confidence in Using Communications and Information Technologies**
    Overwhelmingly focus group participants referred to building self-esteem and eliminating the fear of using computers and telecommunications technologies as a priority of strategies targeting the elimination of the digital divide. Computer literacy programs need to target enhancing this less tangible attribute of successful computer and telecommunications users.
    Performance Indicator:
    - Self esteem index—a survey to measure average user comfort level in using computer software and hardware. Survey administered to participants at regular intervals to measure change.

4. **Measuring Community Integration of Communications and Information Technology**
    Both rural communities and inner city neighborhoods are struggling in providing digital services. Measuring how well a community is investing in providing services to assist businesses, government, social services and education communications and telecommunications can reveal the extent of the digital divide addressed in the community.
    Performance Indicators:
    - Community sponsored classes to build digital literacy skills;
    - Availability of online government services;
    - Change in the Telecommunications Readiness Index (TRI) http://www.communitydevelopment.uiuc.edu/tcii/;
    - Existence of a strategic plan targeting telecommunications and computer technologies.