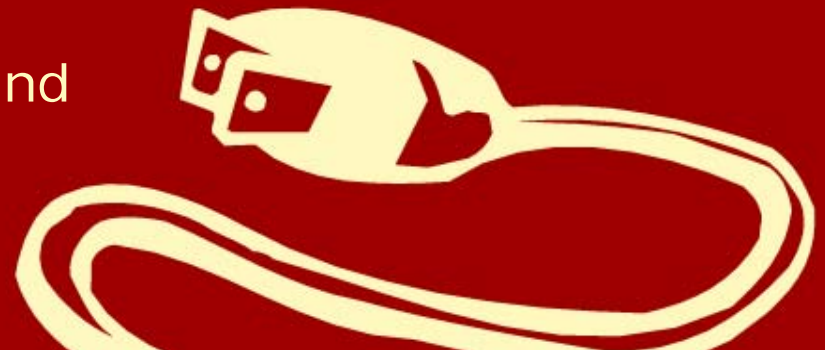


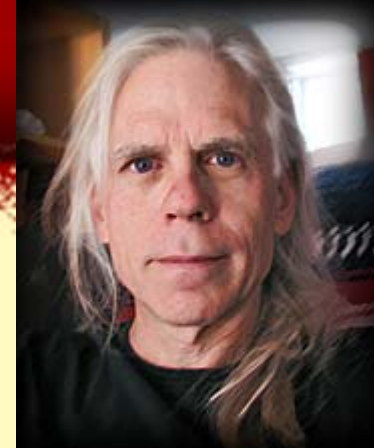
BROAD BAND ACCESS FOR ALL

Martin Sweeney, Center for Accessible Technology

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Accessible Technology Coalition

California Emerging Technology Fund





Introduction

- Martin Sweeney
 - ▶ Center for Accessible Technology; trainer
 - ▶ AT Network, director/manager (2006-09)
 - ▶ Assistive Technology Project, FDLRC (1998-2005)
 - ▶ Computer Access Center, board member
 - ▶ Parent

Accessible Technology Coalition

- To improve the quality of life for people with disabilities through information and training leading to successful adoption and use of accessible technology.
- ATC Programs
 - ▶ Online and In-person Training
 - ▶ Database of Articles
 - ▶ Ask an Expert
 - ▶ Website with customized User Interface

Training Goals

- Introduction to Broadband technology;
- Increase awareness about Broadband access and opportunities for the disability community;
- Put a personal face on Broadband and how it is reshaping our the communities in which we live.



What Is Broadband?



California Emerging Technology Fund

- A non-profit corporation created by the California Public Utilities Commission as part of the SBC-AT&T and Verizon-MCI mergers.
- Merged companies will contribute a total of \$60 million over 5 years to advance broadband.



CETF Mission

- Provide leadership to close the "Digital Divide" by improving the access to and adoption of broadband to underserved communities.
- CETF is the state coordinator for organizations to share information about broadband training and services to 5 million California residents.



Broadband Technology Opportunities Program

- Center for Accessible Technology
- Access Now
- The Center to Promote Healthcare Access, Inc.
- Chicana Latina Foundation
- Dewey Square Group
- Latino Community Foundation
- Radio Bilingue
- United Way of California

BTOP Priority Focus

- Rural communities that lack the broadband access.
- Urban communities that lack the computers and affordable connections to the Internet.
- People with disabilities who lack technology accessibility.



Underserved Communities

“Less than a third of people with disabilities—
24 percent—had adopted broadband by 2008.”

– *Consumer Insights to America's Broadband Challenge*



Underserved Communities

- Many people with disabilities view the Internet as unnecessary and do not recognize the benefits associated with a broadband.
- Often, access to sites that provide public Internet access are inaccessible to people with disabilities.
- A 2007 survey reports that just 3 in 10 people with disabilities were aware of all the available services.
- The vast number of products often overwhelm many people with disabilities who are unfamiliar with available assistive technologies.



**Let's take
a closer
look at
Broadband**

How Broadband is defined...

- Broadband is a generic term with different meanings depending upon context and how it is used.
- Broadband is fast Internet access.
- Generally 10-20 times faster than a dial-up modem.
- Allows large amounts of information to be conveyed quickly, such as data, graphics files or video.
- Instant Internet access 24 hours a day.
- Broadband is considered technology-neutral.



“The digital divide may be a problem of access to technology, but in the end, what matters most is not the technology, but the people who will use it.”

– *Media Alliance*

Digital Inclusion Toolkit



Like electricity a century ago...



"...Broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life...It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge."

– *Connecting America: The National Broadband Plan*



National Broadband Plan

A video player interface showing a man in a suit, Julius Genachowski, speaking in an office setting. The office includes an American flag, a globe, and a window with blinds. A large green plant is visible to the right. The video player controls at the bottom show a play button, volume icon, a progress bar at 0:02 / 5:23, a 360p resolution indicator, a Creative Commons license icon, and icons for copy, share, and full screen.

Julius Genachowski
Chairman of the Federal Communications Commission

After many months of hard work,

0:02 / 5:23 360p CC



**Now let's
take a closer
look at
Broadband
& Disability**

Broadband & Disability

- There are over 50 million people with disabilities living in the United States;
- Between the ages of 16 and 64, 7.1 percent (3,550,000) reported an employment-related disability.
- Older Americans report a higher rate of disability than any other age group. The prevalence of disability among those over age 75 was 52.9 percent (26,450,000).

Broadband Barriers

- Barriers for people with disabilities
 - ▶ Access
 - ▶ Digital literacy
 - ▶ Cost
 - ▶ Relevance

Access

- Owning a computer is an essential requirement to adopting and using broadband at home.
- In 2008, slightly more than half of people with disabilities—51 percent—reported having a computer at home.
- Less than a third of people with disabilities—24 percent—had adopted broadband by 2008.

Perception, Skills, Support & Costs

- Lack of awareness or skepticism regarding the value of broadband
- Affordability for people who live on fixed incomes
- Lack of training and core computer competencies;
- Lack of support with on-going use.
- Usability concerns including computer hardware and software costs, and online content
- Online security concerns
- Unique and non-traditional living arrangements

Making the Connection

- Why is Broadband important?
 - ▶ Health Care
 - ▶ Education
 - ▶ Employment
 - ▶ Civic engagement
 - ▶ Public safety
 - ▶ Entertainment
 - ▶ Social networking & media

HEALTH CARE



Broadband & Health Care

- In 2007, more than 75% of all Internet users had used the Web to obtain medical or health information.
- Broadband is playing an important role in healthcare by enabling a range of telemedicine services that provide a number of life-enhancing, and potentially lifesaving, benefits.

Health Care Benefits

- Benefits include:
 - ▶ Lower prescription drug bills for people to conveniently comparison shop online;
 - ▶ Cost savings associated with effective in-home diagnostic, monitoring, and treatment services.
 - ▶ Allows for more real-time transmission of important health information;
 - ▶ Empower individuals to have more control over medical decisions.

PATIENT & PHYSICIAN

An E-mail Conversation...

From: Woman with disability who is nonverbal

Hey, my specialist thinks I got the kidney stone from a urinary tract infection. What I don't understand is how I could have that if I never had a urinary tract infection.

From: Primary Physician

Never heard of that myself. It is possible to have a kidney infection and not know it. I don't have insight into this but will do a little research.

PATIENT & PHYSICIAN

An E-mail Conversation...

From: Woman with disability who is nonverbal

That's very cool! I'd be very interested in what you find out about the stone.

From: Doctor

You sure she's not referring to this? From MedicineNet:
Kidney stones can also result from infection in the urinary tract; these are known as struvite or infection stones.

PATIENT & PHYSICIAN

An E-mail Conversation...

From: Woman with disability who is nonverbal

I can't see the link and it might be what she was trying to say, but again, I don't think I had a urinary tract infection. The ultra sound showed the stone in the kidney, not the urinary tract.

From: Doctor

Sent from doctor's Verizon Wireless BlackBerry

Kidney IS urinary tract!!!!!!!!!!!!!!

My recollection was at least one sample had infection cells.

PATIENT & PHYSICIAN

An E-mail Conversation...

From: Woman with disability who is nonverbal

I did one with the nurse and an other one at the emergency room. Both cultures came back negative.

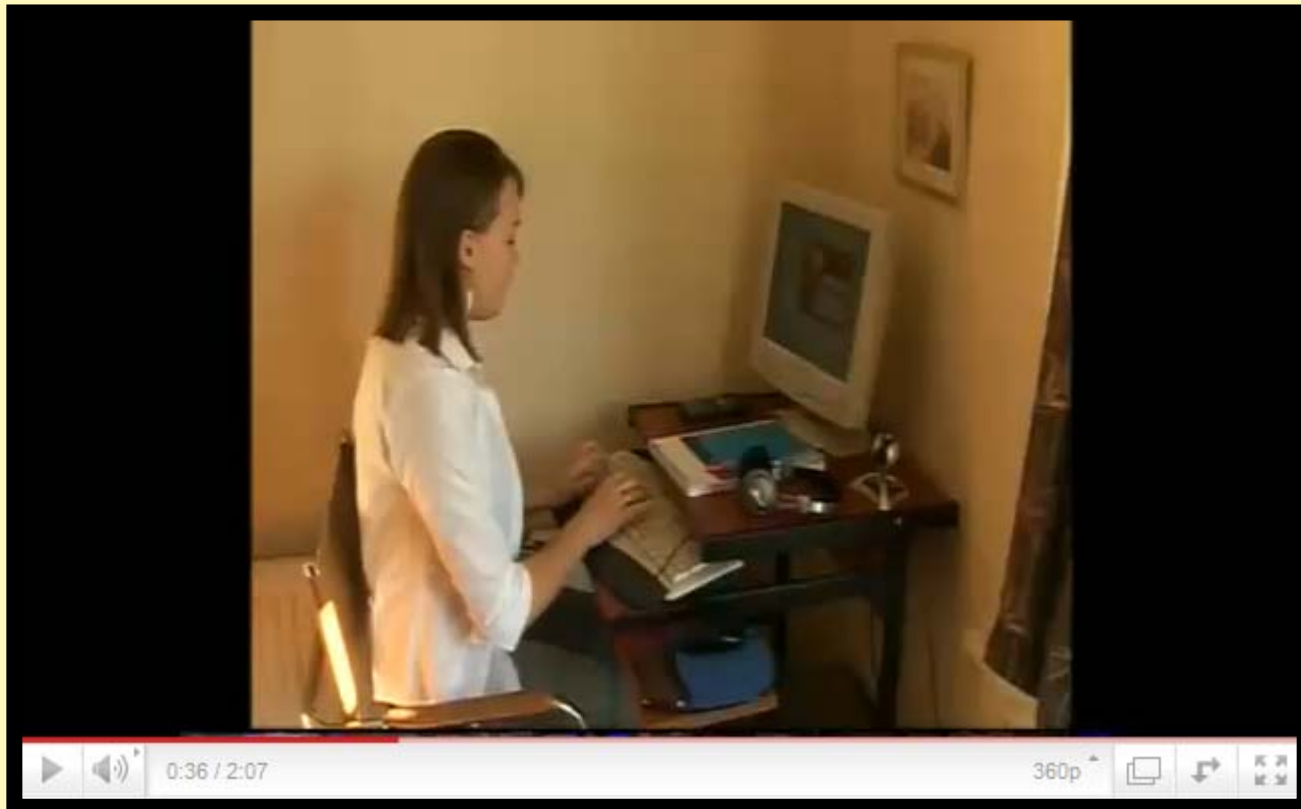
Its a mystery???

From: Doctor

So often stuff in medicine is a mystery.

There's so much we don't know or understand.

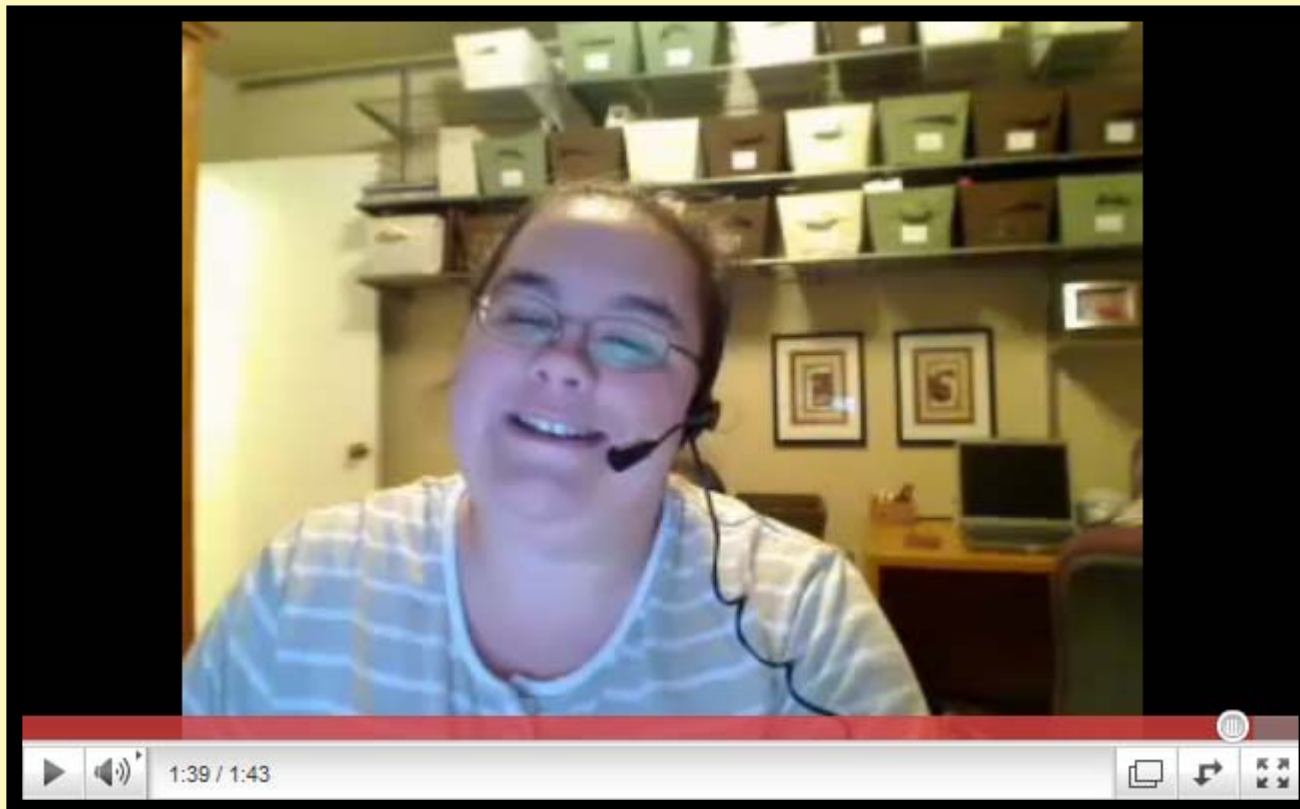
EDUCATION



Online Education

- An online education brings the classroom to you. With virtual classrooms, you can login and complete coursework anytime and anywhere.
- Without the barriers of accessing a traditional school environment, online instruction can offer an education that meets one's unique needs, learning styles and goals.

EMPLOYMENT



Broadband and the Work Place

- Broadband allows more people with disabilities to telecommute from their homes, creating increased employment opportunities.
- An estimated 29 percent of Americans with disabilities would join the workforce if telecommuting were a viable option, and broadband will be key to its success.

Examples at the Work Place

- Text-to-speech applications enable those who are blind or have low vision to read e-mails and work documents.
- Internet relay chat and Video Relay Services are helping deaf and hard of hearing adults to communicate with voice telephone users and coworkers.



Video Relay Services

A deaf person with a web-cam calls an interpreter via the Internet who then facilitates communication.



CIVIC ENGAGEMENT





“Broadband technology can only make a valuable contribution to our civic dialogue if everyone has access to it. As the Internet increasingly becomes the standard platform for receiving information, those who do not have high-speed access to the Internet will be left completely out of the civic dialogue.”

– *National Broadband Plan*

SOCIAL NETWORKING



SOCIAL NETWORKING



COMMUNICATION



AN AGING POPULATION



Low Adoption Rate by Seniors

- There are over 78 million boomers in America, making it the largest generation in history.
- The low Broadband adoption rate stems largely from inadequate value propositions and a general lack of awareness of the benefits of broadband.
- Age-related changes in perceptual, cognitive, and psycho-motor abilities pose a number of barriers to broadband adoption and use by many seniors.

Broadband Benefits

- Offers a wide range of life-enhancing social, economic, and health-related benefits.
 - ▶ Stay in better touch with family and friends;
 - ▶ Work from home or start a small business;
 - ▶ Obtain relevant and timely health information;
 - ▶ Early intervention and preventative techniques;
 - ▶ Decreased distance and transportation-related costs for physician and patient travel.

Summary

- Broadband is a generic term for fast Internet access.
- Less than a third of people with disabilities have adopted Broadband.
- Broadband access poses significant barriers for people with disabilities.
- Broadband access offers significant benefits and opportunities for people with disabilities.
- Broadband represents a technological infrastructure that significantly impacts quality of life issues for everyone, including people with disabilities.

Resources

- **A Giant Leap & A Big Deal: Delivering on the Promise of Equal Access to Broadband for People with Disabilities**
by Elizabeth Lyle
<http://blog.broadband.gov/?entryId=391546>
- **California Emerging Technology Fund**
www.cetfund.org
- **National Broadband Plan**
www.broadband.gov



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ACCESSIBLE
TECHNOLOGY
COALITION

**BROAD
BAND**

Without access we're right
back at the curb without a cut

**ACCESS
FOR ALL**