

Higher Education Challenges Facing American Indians and the Distance Education Possibilities: Accessibility

Digital Pathways

Best Practices in Distance Education for American
Indians
March 18, 2004

The Internet: Global Access

- Attend class several states from home.
- shop for clothes, groceries, artwork, jewelry, books, etc. anywhere
- find romance, family, and more.
- learn of political issues
- read newspaper or magazines online

The Internet: Access for People with Disabilities

- Access to training and other resources reduces barriers like transportation.
- Reduces discrimination based on disability.
- Capacity exists to make information accessible for people w/ disabilities.

Access for People with visual impairments

- Challenge: visual (color depth, color profile) & audio output (cannot be replayed at later time, ambiguity of descriptions).
- Tools: screen reader, enlargement utilities;

Access for People with Learning Disabilities

- Challenge: Need oral repetition, reversal of words or numbers, limited attention span, slow reading rate, poor note taking, limited organizational skills.....
- Tools: Use cluttered format, provide extended test time, Use clear and specific directions, suggest tools (audio books, talking browsers...)

Access for People with Mobility Impairments *spinal cord injuries, cerebral palsy, muscular conditions*

- Challenge: involuntary motion of legs or arms, uncontrolled eye movement, lack of coordination
- Tools: trackball, joystick, keyboard adaptations (tongue touch keypad), key guards, alternative keyboards (intellikeys)

Access for *People with Seizure Disorders*

- Challenge: involuntary movements, lapses on consciousness, memory lapses following seizure, fatigue following seizure
 - Tools: aides, review sheets, text versions of audio directions, extended test time (or untimed)
- If photosensitivity: avoid blinking text

Rehabilitation Act of 1998 Section 508

“Covered entities under the ADA are required to provide effective communication, regardless of whether they generally communicate through print media, audio media, or computerized media such as the Internet. Covered entities that use the Internet for communications regarding their programs, goods, or services must be prepared to offer those communications through accessible means as well.”

Access to Internet *in Rural Areas*

- Internet access is about 10% behind national average (67% urban, 66% suburban, 52% rural).
- Rural residency has little impact on whether one goes online.
- Low income people in rural areas are less likely to be online than low income people in urban or suburban areas.

Demography of Rural Areas

- Rural residents: older, less wealthy, have lower levels of educational attainment than urban or suburban areas.

Access to Internet: *Based on Income*

- Internet use increases with household income.
- Income threshold of \$30K significant factor for Internet use.
- 47% of rural residents (29% urban, 39% suburban) have HH incomes of \$30K or less
- People with disabilities have higher rate of unemployment (low incomes)

Median Household Incomes (2000)

- US - \$41,990.
- NM - \$34,487.
- Cibola County - \$27,396.
- McKinley County - \$25,745.
- Sandoval County - \$43,608.
- San Juan County - \$33,791.

Income and Education: Key factors in access to Internet

American Indians with disabilities –

- Pursuing higher education
- Employed/unemployed

Tribal Nations and Accessibility

- Tribes must recognize that the progress of nations depends on the preparedness of **all** its tribal people.
- Tribes must take steps to embrace inclusion, rather than exclusion.
- Tribes must be willing to establish policies and practices for hiring people with disabilities including accommodations.

Global Access begins with

- Access to education
- Access to employment

Failure to embark on change will result in marker disparity for access to information, resources, and learning opportunities...

Resources on Disabilities

Select a category for a list of web resources that provide additional information on disabilities and accessibility.

- [General Accessibility Information](#)
- Disability Information
[Blind / Visual](#) | [Deaf / Hearing](#) | [LD](#) | [Mobility](#) | [Seizure](#) | [Speech](#) | [Psychiatric](#)
- Laws on Accessibility / Nondiscrimination
[ADA](#) | [Section 504](#) | [Section 508 of the Rehabilitation Act](#)
- Legal Rulings on Cases Involving Distance Education
 1. [California Community Colleges Case](#)
- [Concerns of CA Colleges Case](#) from the Department of Education.
 2. [California State University, Los Angeles Case](#)
 3. [San Jose State University Case](#)

General Accessibility Information

- [Access for All: A Resource Manual](#)
www.communityinclusion.org/onestop/onestopmanual.html
- [ADAPTS Teaching Students with Disabilities](#)
www.adapts.gatech.edu/faculty_guide/teach.htm
- [assistivetech.net](#)
www.assistivetech.net
- [\(CATEA\) Center for Assistive Technology and Environmental Access](#)
www.catea.org
- [Disability Access Symbols](#)
www.gag.org/resources/das.php

- (ITTATC) Information Technology and Technical Assistance Center
www.ittatc.org
- National Center on Accessibility
www.indiana.edu/~nca
- National Council on Disability
<http://www.ncd.gov/>
- (NIDRR) National Institute on Disability and Rehabilitation Research
<http://www.ed.gov/offices/OSERS/NIDRR/>
- Rehabilitation Act of 1973, Title 5
www4.law.cornell.edu/uscode/29/701.html
- Rehabilitation Services Administration
www.ed.gov/offices/OSERS/RSA/
- Rural and Agricultural Disability Resources
pasture.ecn.purdue.edu/ABE/Extension/BNG/
- U.S. Access Board
www.access-board.gov/

Disability Information

Blind / Visual Impairment

- Accessible Media Providers
www.ittatc.org/technical/providers/index.cfm
- American Council of the Blind (ACB)
www.acb.org/
- American Foundation for the Blind (AFB)
www.afb.org
- American Printing House for the Blind, Inc. (APH)
www.aph.org

- Lighthouse International
www.lighthouse.org
- National Braille Press
www.nbp.org
- National Federation Of The Blind (NFB)
www.nfb.org
- Recording for the Blind and Dyslexic (RFB)
www.rfb.org
- Vision Impairments and Job Accommodations
www.jan.wvu.edu/soar/vision/visionex.html
- Vision Impairment: Workplace Tools and Tips
www.ilr.cornell.edu/ped/accessforall/sight.htm
- Vischeck
www.vischeck.com/

Deaf / Hearing Impairment

- ASL University
www.lifeprint.com/asl101/
- Association of Late Deafened Adults
www.alda.org/
- Closed Captioning Web
www.captions.org/services.cfm
- Deaf Resource Library
www.deaflibrary.org/
- Hearing Loss Workplace Tools and Tips
www.ilr.cornell.edu/ped/accessforall/hearing.htm?page=hearing_tools

- National Association for the Deaf
www.nad.org/
- National Information Center on Deafness
clerccenter.gallaudet.edu/InfoToGo/index.html
- Registry of Interpreters for the Deaf
www.rid.org/
- Self Help for Hard of Hearing People
www.hearingloss.org/
- Telecommunications for the Deaf, Inc.
www.tdi-online.org/
- TTY Usage and Etiquette
www.state.ma.us/mcdhh/textversion/805.html
- Tips for Employing People Who are Deaf or Hard of Hearing
www.disabledperson.com/RecruitABILITY/empdeaf.htm
- Working Effectively with People Who are Deaf or Hard of Hearing
www.ilr.cornell.edu/ped/download.html?prod_id=92
- Using a TDD or a TTY for People Who are Deaf or Hearing Impaired
www.uchsc.edu/atp/library/fastfacts/tty.htm

Learning Disability

- Arc of the United States
www.thearc.org/employment.html
- Association on Higher Education and Disability
www.ahead.org/
- International Dyslexia Association
www.interdys.org/

- Learning Disabilities and Assistive Technology (PDF Document)
www.techconnections.org/training/ac_091300/4-LD.pdf
- Learning Disabilities and Job Accommodations
www.jan.wvu.edu/soar/LD/LDex.html
- Learning Disabilities Association of America
www.ldanatl.org/
- National Attention Deficit Disorder Association
www.add.org/
- Recording for the Blind and Dyslexic (RFB)
www.rfbd.org
- Traumatic Brain Injury (TBI) Resource Guide
www.neuroskills.com/
- Working With Persons Who Have Cognitive Disabilities
www.ilr.cornell.edu/ped/download.html?prod_id=94

Mobility Impairment

- Center for Universal Design
www.design.ncsu.edu:8120/cud/
- Workplace Accommodations for Persons with Muscular-Skeletal Disorders
http://www.ilr.cornell.edu/ped/download.html?prod_id=95
- Job Accommodation Network
www.jan.wvu.edu/soar/wheelchair.html
- Muscular Dystrophy Association
www.mdaua.org/about.html
- National Stroke Association
www.stroke.org/

- Paralyzed Veterans of America
www.pva.org/
- Sample Accommodations for Wheelchair Users
www.jan.wvu.edu/soar/wheelchair/wheelchairex.html
- Spina Bifida Association of America
www.sbaa.org/
- United Cerebral Palsy
www.ucp.org/

Seizure Disorder

- EpiCenter
<http://137.172.248.46/frequent.htm>
- Epilepsy Foundation of America
www.epilepsyfoundation.org/
- Epilepsy in Children
www.kidsepilepsy.com/
- Neurology Channel
www.neurologychannel.com/seizures/
- Strategies for Teaching Students with Epilepsy
www.as.wvu.edu/~scidis/epilepsy.html

Speech Impairment

- American Speech Language Hearing Association
www.asha.org/public/speech/
- Resource Guide for People with Language and Speech Impairments
www.microsoft.com/enable/guides/language.aspx
- Strategies for Teaching Students with Communication Disorders
www.as.wvu.edu/~acad/text/comm.html

- Stuttering HomePage
<http://www.mankato.msus.edu/dept/comdis/kuster/stutter.html>
- Telephone Features for People with Speech Impairments
www.tiresias.org/phoneability/telephones/speech_impairment_severe.htm

Psychiatric Disability

- Bazelon Center for Mental Health Law
www.bazelon.org/welcome.html
- Boston University Center for Psychiatric Rehabilitation
www.bu.edu/cpr/
- Center for Mental Health Services
www.mentalhealth.org/default.asp
- Child and Adolescent Bipolar Foundation
www.bpkids.org/
- Job Accommodation Network: Psychiatric Disabilities
www.jan.wvu.edu/soar/psych.html
- Mental Illness Education Project
www.miepvideos.org/index.html
- National Alliance for the Mentally Ill
www.nami.org/
- National Institute of Mental Health (NIMH)
www.nimh.nih.gov/
- National Mental Health Association
www.nmha.org/
- National Mental Health Consumers' Self-Help Clearinghouse
www.mhselfhelp.org/

- Substance Abuse and Mental Health Service Administration
www.samhsa.gov/

Access/Nondiscrimination Laws and Resources

Americans with Disabilities Act of 1990 (ADA)

- ADA Accessibility Guidelines for Buildings and Facilities
www.access-board.gov/adaag/html/adaag.htm
- ADA Regulations and Technical Assistance Manuals
<http://www.usdoj.gov/crt/ada/publicat.htm>
- ADA Standards for Accessible Design
<http://www.usdoj.gov/crt/ada/stdspdf.htm>
- ADA Technical Assistance Center
www.adata.org/
- Southeast Disability and Business Technical Assistance Center (Southeast DBTAC)
www.sedbtac.org/
- U.S. Department of Justice ADA Home Page
<http://www.usdoj.gov/crt/ada/adahom1.htm>

Section 504 of the Rehabilitation Act

- Nondiscrimination under Federal grants and programs; promulgation of rules and regulations
http://www.access.gpo.gov/nara/cfr/waisidx_99/34cfr104_99.html
- Section 504 Fact Sheet
www.os.dhhs.gov/ocr/504.html
- Section 504 Narrative
www.ed.gov/offices/OSERS/RSA/Policy/Legislation/narrative.html

- Section 504 U.S. Code
www4.law.cornell.edu/uscode/29/701.html

Section 508 of the Rehabilitation Act

- Current State of Federal Accessibility - Information Technology and People with Disabilities
<http://www.usdoj.gov/crt/508/report/content.htm>
- Department of Justice Section 508 Home Page
www.usdoj.gov/crt/508/508home.html
- Section 508: Electronic And Information Technology (full text)
<http://www.usdoj.gov/crt/508/508law.html>
- Section 508: The Road to Accessibility
<http://www.section508.gov/>
- Technical Assistance to Ensure Successful Implementation
<http://www.access-board.gov/508.htm>

Source: Accesslearning. Module retrieved from <http://www.accesslearning.net/> on 3/16/04.

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