

America Accesible III
Informacion y Comunicacion para Todos
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Experiencias en el desarrollo y aplicacion de lineamientos y
estandares para el acceso efectivo a las
telecomunicaciones y TIC para personas con discapacidad

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Disability Rights Movement

- ▶ Civil rights movements to end discrimination based on race (1960s); gender (1970s)
- ▶ Disability movement followed in the 1970s and 1980s - lead to adoption of Americans with Disabilities Act (ADA) in 1990, many other laws
- ▶ 1970s: Focus initially was on government agencies - to eliminate architectural barriers (e.g., building entrances - ramps, wider aisles, accessible parking and bathrooms)
- ▶ Late 1980s: ADA: Focus moved to jobs, access to places of public accommodation e.g., to restaurants, hotels, businesses, government agencies
- ▶ Focus also began to shift to technology: telecommunications and TV
- ▶ Turn of century - Focus shifted to all forms of ICT (TIC), including access to the Internet, laptops, computers, and other technologies.



Government Involvement: Market forces are often ineffective to achieve access

- ▶ Each disability market is too small
- ▶ Lower incomes mean less purchasing power
- ▶ In the past, people had to buy adaptive equipment, which was expensive and hard to find and so discouraged purchases
- ▶ Consequence: consumers with disabilities were often left behind
- ▶ Government stepped in with laws to require access



Legal Justifications for Government Action

- ▶ Recognition of limits of a competitive marketplace for people with disabilities
- ▶ Reliance on Communication Act's "universal service" obligation to mandate access
- ▶ Recognition of costs to society of "lost access"
- ▶ Recognition of pervasiveness of communications in commercial transactions and personal contacts
- ▶ Recognition of television as a tool of learning and achieving social acceptance

Telecommunications Access as a Civil Right



1968-2010: Federal Communication Accessibility Laws

- Architectural Barriers Act of 1968:
 - Requires access to facilities designed, built, altered, or leased with Federal funds
- Rehabilitation Act of 1973
 - Section 508 - Requires federal government to acquire and provide accessible electronic, information and telecommunications technologies to federal employees and members of the public using government services
- Telecommunications Act of 1982 and Hearing Aid Compatibility Act of 1988
 - Require telephones to be com with hearing aids and cochlear implants (inductive, acoustic coupling)
- Telecommunications Accessibility Enhancement Act of 1988
 - Requires Federal Relay System
- Americans with Disabilities Act of 1990
 - Requires nationwide telecommunications relay services
 - Requires telephone access to telephone emergency services
- Television Decoder Circuitry Act of 1990
 - Requires closed captioning capability on TVs with screens larger than 13 inches (superseded)
- Telecommunications Act of 1996
 - Requires access to telecommunications products and services
 - Requires closed captioning on TV
- Twenty-First Century Communications and Video Accessibility Act
 - Aligns above laws with 21st century technologies



Fast Paced Innovations

- ▶ Technology innovation is swift
 - ▶ In 2008, there was no such thing as an “app”
 - ▶ In 2010, there was no market for tablets.
 - ▶ Apps are now downloaded in the billions, and there are tens of millions of tablets in American homes.
- ▶ Without access, 1 billion people with disabilities will have higher unemployment, lower wages, and fewer educational opportunities
- ▶ Must stay ahead of technology. If not, access gained can be access lost.



Examples of Access Gained that was Taken Away at the Introduction of New Technologies

- ▶ Hearing aid compatibility - transition from analog to digital wireless phones in mid-90s
- ▶ Graphical interfaces - transition from computer text that had been accessible via screen readers for people who are blind
- ▶ Closed captioning
 - ▶ Transition from broadcast, cable and satellite transmissions to Internet protocol
 - ▶ Transition from traditional TV sets to wireless devices (tablets, cell phones)
- ▶ Transition from analog to digital television

Universal Design

Build it so that it can be adaptable to and accessible for everyone

- ▶ Evaluate accessibility needs at the design stage, develop solutions, and build in access features from the start, when they are easily integrated into product design.
- ▶ When this does not occur, retrofitting products is often burdensome and expensive
 - ▶ Example: \$1 billion for telecommunications relay service program in the United States



Universal Design

Consider accessible designs for:

- ▶ How to find communications and information: accessible navigation tools
- ▶ How to provide accessible interfaces - e.g., web design, easy access to accessibility features
- ▶ How to make content accessible: e.g. through captions, video description
- ▶ How to support consumers in their use of accessible products and services:
 - ▶ Provide accessible instruction manuals, make call centers accessible (e.g., direct video communication)
 - ▶ Give people information about accessibility features and how to use them



Goals of Accessible Design

- ▶ Ensure Equality: Ensure that people with disabilities have the same access as everyone else - in terms of:
 - ▶ the ease of acquiring the device - if assistive technology is used, it must be as easy to find as other products (available in retail stores); should be available in a timely fashion
 - ▶ ease of use
 - ▶ interoperability with other devices
- ▶ Ensure Affordability: Accessible solutions should not cost any more than solutions for everyone else. High costs for adaptive software and hardware created barriers in the past.
- ▶ Ensure Ubiquitous Access: There needs to be accessible public locations that offer Internet, communications access - e.g., libraries, schools
- ▶ Enable personalization: Design products so they can be tailored to individual needs.



Consultation with Consumers

- ▶ Talk to consumers with disabilities to learn about their accessibility needs
- ▶ Share best practices
- ▶ Have forums to demonstrate new products and applications
- ▶ Governmental Advisory Committees - e.g., FCC committees:
 - ▶ Emergency Access Advisory Committee - produced recommendations for text-to-911
 - ▶ Video Programming Accessibility Advisory Committee - produced recommendations for delivering captions delivered via Internet protocol; televised video description, in prep for FCC's rules
 - ▶ Disability Advisory Committee, - Since 2014, advises FCC on disability matters Recommendations on: real time text, amplification of phones in an IP environment, emergency calls over video relay services, Internet of Things.

Disability Advisory Committee

- ▶ Provides advice and recommendations on disability issues to FCC
 - ▶ Established January 2014 - 2 year term ends in December
 - ▶ Will begin with new committee in January 2016
- ▶ 5 subcommittees: Communications, Emergency Communications, Relay and Equipment Distribution Programs, Video Programming, and Technology Transitions.
- ▶ Ad hoc working groups -e.g., Cognitive Disabilities
- ▶ Many recommendations to date: closed captioning, telecommunications relay services, phone amplification, high definition telephone service, and accessible wireless emergency alerts.
- ▶ Webpage: <https://www.fcc.gov/general/disability-advisory-committee>.



Create Accountability

- ▶ CVAA: Requires companies to keep records of their consultation with people with disabilities. If someone files a complaint, the company must produce records that show:
 - ▶ Description of accessibility features in products and services
 - ▶ Information about compatibility of products with specialized customer premises equipment (assistive technology)
- ▶ Must submit annual certification proving records have been kept to the Commission

Recognize Benefits for All

- ▶ Accessibility fosters innovation and benefits the general public, as is evidenced by the many technologies that were originally designed for people with disabilities, but which are now used by the mainstream public – e.g., closed captioning, talking caller ID features on telephones, volume control on telephones
- ▶ The Chairman's Awards for Advancement in Accessibility – designed to foster such innovations by start-ups and others.
- ▶ The FCC understands the importance of ensuring that people with disabilities continue to have equal access as technologies change.
 - ▶ Carefully assessing the impact that the transition from legacy, analog networks to digital, all IP-networks will have on access by people with disabilities to our nation's communications networks.
 - ▶ Working on new proceedings to address changes – for example, real-time text.

Contact Information

- FCC – Disabilities Rights Office Webpage:
<https://www.fcc.gov/disability>
- FCC – CVAA Webpage:
<http://www.fcc.gov/encyclopedia/twenty-first-century-communications-and-video-accessibility-act-0>
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