Because We Can!

Including Everyone in Technology Opportunities

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Knowbility.org
for
World Usability Day 2009
Michigan State University
Usability & Accessibility Center
About Knowbility

• 501(c) 3 nonprofit organization
• Accessibility mission
• 3 sets of related services
  - Awareness and advocacy
  - Education in K-12 and higher ed
  - Consulting services to government and business
“Accessible”

People with disabilities can perform same functions

... receive same information

... participate as both consumers AND producers
Universal Design…

• supports all people
• supports all technology
• improves experience for all
• strong relationship to usability
• “Good design is Accessible Design”
  ~ Dr. John Slatin
Reasons to advocate for and implement universal design:

- Legal
- Market driven
- Humanitarian
the legal mandate

- Global requirements - EU, Canada, Australia, many others
- US Federal Law
- State, local governments
Legal pressures

- Court decisions
- Existing laws
- Class action
- Structured negotiations
Disability market is growing

- 55 million Americans, 750 million worldwide
- More as population ages
- Fortune magazine: “$1 trillion annual market”
Marketplace: Accessibility ROI

British Financial Firm (Legal and General)

- Search engine referrals + 28% in 24 hours
- Requested quotes doubled in 3 months
- Site maintenance costs cut by 66%
- Project delivered 100% ROI in 12 months
Search engines...

- Don’t “see” images, video content.
- Don’t “hear” audio.
Curb-cut affect: broad benefit of accommodation

- Slow Internet Connection
- Old Browser
- Missing Plugins
- No Speakers
- Small Screens
Because we can.
From Where I Sit

Video series of student experience

www.calstate.edu/accessibility/resources/videos.shtml
Delia

• 24 year old, aspiring web developer
• American Sign is native language
• blogs, social media, shops, news
• spearheaded innovative use of YouTube for her community
Issues in technology access

For Delia and other Deaf users:

► captioned videos
► transcripts for audio content
► alternatives for sound cues
Paul

- 42 year old student
- Retraining for new career
- Spinal injury resulted in partial use of arms and hands
- Uses computers for
  - home-based learning
  - job searches
  - registration with govt agencies
  - virtual mobility
Issues in technology access

for Paul and others with mobility impairments:

► keyboard access
► may use filter keys, word prediction software and single switch devices
► may use sticky key software
► voice input may be possible
Carrie

• Learning disabilities, including ADD, dyslexia
• Emotional, behavioral disorders
• Continues to improve in school with AT - assistive technologies

• Computers help Carrie
  – focus on work
  – multi-modal presentation
  – reinforce learning objectives
  – emotional “space”
Issues in Technology Access

For Carrie and others who have learning or cognitive disabilities:

• Option to simplify layout / dynamic content
• Plain language
• Clear messages

May use:

• Text to speech software with word highlighting – text must be available to AT
• Word prediction software
Dr. John Slatin

- University professor, expert user of tech
- Gradually lost sight from retinal disease
- Academic research
- Blogger, social media leader
- Set standards for university and world
Issues in technology access

For John and others with visual impairments:
• Alternatives to image content
• Search and other forms, interactive elements
• Drag and drop
• Tab logic, navigation
• Color cues
• Content management
• Audio description for video content.
Shall we see some AT in action?

BBC clip of people with disabilities empowered through technology.

www.youtube.com/watch?v=SDJt-dp--Oo
Education, Employment, Social Opportunities

- Experience improves with diversity
- Accessibility broadens participation
- Shared experiences lead to greater understanding

We have the tools!
WCAG 2.0, Guideline 1

1. Perceivable - Information and user interface components must be presentable to users in ways they can perceive
WCAG 2.0, Guideline 2

2. Operable - User interface components and navigation must be operable
WCAG 2.0, Guideline 3

3. Understandable - Information and the operation of user interface must be understandable
4. Robust - Content must be able to be interpreted reliably by a wide variety of user agents, including assistive technologies
It is up to you

Thanks!

For most people technology makes things easier. For people with disabilities, technology makes things possible.

President's Council on Disabilities