Access Technology: Libraries

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Access Technology Center

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Information Technology
What is AT?

- Assistive Technology
- Adaptive Technology
- Access Technology
Definition of AT

• ANY device that makes a task not normally accessible by a person with a disability possible.
  • Wheelchairs
  • magnifying glass
  • Door openers, ramps

• Hardware or software that provides access to computing technology
Access Issues

- Perceivable
- Operable
- Understandable
- Robust
Technology

• Screen
  • Enlargement
  • No vision

• Text
  • Audio output
Why Accessibility?

• The law

• The right thing to do

• The most viewers

• More flexible
General Categories

• Mobility/Communication
• Learning Disabilities
  • Reading
  • Writing
• Sensory
  • Low Vision
  • No Vision
  • Hearing
AT for Mobility

- Access to the interface (Pointers)
  - Trackballs
  - Keyboard
  - Joystick
  - Hands
  - Foot control
  - Head Pointers
Joystick – mouse alternate
ProPoint & Thumbelina
NoHands foot-operated mouse
AT for Mobility

- Virtual Keyboard
  - Full keyboard functionality
- Word Prediction
  - Reduces keystrokes
  - Often works with Virtual Keyboard
- Switch Input
  - Scanning, Morse code
Typing with an on screen keyboard is a great solution.
AT for Mobility

• Speech **input**
  • Speaker dependent
  • "Cognitive Overhead"
  • PC Platform – lots of horsepower

• Alternate Keyboards
  • Mini
  • Large
  • One-handed
Speech Input
More Keyboard – Big Keys
Access for Mobility

- Mouse alternate
- Right-sized controls
- Obvious links
- Visible focus indicator
- Variable timing
AT for Learning Disabilities

• Derived from other solutions
  • Scanning/OCR
  • Talking Word Processors

• Speech output tends to work well
  • Speech input? Maybe

• Writing tools
This is a sample of on-the-fly spell checking and word prediction. This tool will also read back text as it is typed, or a user can copy text.
Claro Read demo
Access for Learning Disabilities

- Text has to be text
- Transcribed audio/video
- Helpful icons
AT for Low Vision

• Large Monitors
• Video Magnifiers
• Enlarged keyboard labels
• Screen Enlargement
  • simple
    • Increase font
    • Decrease resolution
  • Complex
    • May include limited speech output
• ZoomText keyboard
Video Magnifiers

Physical geography looks at the land of the planet earth (i.e., the lithosphere.) Physical geography's sister science, human geography, focuses more on the people and their activities.
AT for No Vision

• Speech Output
  • Screenreader

• Scanner/Readers

• Braille
  • refreshable display
  • embossed output
SCREEN READER DEMO
Access for Vision

- “Good” contrast
- Keyboard-operable
- Visible focus indicator
- Header tags
- Alt Text for images
Access for Hearing

- Captions
- Captions
- Captions
- (and Transcripts)
POUR

- Can it be seen with AT?
- Can it be operated with AT?
- Can the content be consumed with AT?
- Can it work with a variety of platforms?
Web Content Accessibility Guidelines

- Perceivable
- Operable
- Understandable
- Robust

WCAG 2.0 from World Wide Web Consortium
3 Easy Guidelines

• Valid code

• Alternate text for images and video

• Usable without a mouse
Web page demo

- www.washington.edu/accesscomputing/AU/
Questions/Comments

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Questions/Comments