Assistive Technology

WHAT it is
How to LEARN about it
WHERE you can obtain it
How you can PAY for it
What is Assistive Technology

Assistive technology is an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with disabilities and also includes the process used in selecting, locating, and using them. Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to, or changing methods of interacting with, the technology needed to accomplish such tasks.

Source: http://en.wikipedia.org/wiki/Assistive_technology
What is Assistive Technology?

Source:
http://www.augsburg.edu/class/groves/assistive-technology/everyone/
What does the ADA say about AT and Libraries?

• Refer to the American Library Association: www.ala.org/tools/ada-and-libraries

• In basic terms, libraries must provide access for all types of disabilities. This includes navigation within the library as well as access to computers, and library programs and services

• Example from Orange County Public Library: www.ocls.info/About/assistiveServices.asp
Low Tech versus High Tech

• Low tech: devices or equipment that don't require much training, may be less expensive and do not have complex or mechanical features.
• High Tech: refers to the most complex devices or equipment, that have digital or electronic components, may be computerized, will likely require training and effort to learn how to use, and cost the most.
• Source: www.gatfl.org/assistive.php
Exciting Developments in AT

• Built-in technology
• Free or low cost software
• Apps
• Tablets
• Funding / device loans / used equipment
• Constantly evolving
• Equipment can assist people with a variety of disabilities
Downsides to Technology

• Can be expensive

• Problems with training:
  – Transportation
  – Health
  – Money
  – Resistance to learning something new
  – Not enough trainers

• High rate of obsolescence of apps and devices
Technology Categories

Low Vision / Blindness

Deaf / Hard of Hearing

Mobility Impairment

Learning Differences
Blindness / Low Vision

- Low vision aids
- Video magnifiers
- Computer hardware and software
- Reading machines
- Digital audio book players and voice recorders
- Braille devices
Low Vision Aids: Low Tech

- Talking or big number clocks / watches
- Big button telephones
- Tactile dots for labeling
- Talking thermometers
Video Magnifiers

- Also called CCTV’s
- Magnifies print
- Desktop and handheld (portable) models
Computer Hardware and Software

• Screen enlarger
• Magnification software: ex: ZoomText
• Speech software: ex: JAWS and Window Eyes
Reading Machines

- Scans print and reads it aloud
- Usually expensive
- Most are desktop models
Audio Book Players and Voice Recorders

• Talking Book Program has its own player
• Several of the commercial players are compatible
• Phone and tablet apps also available
• Recorders assist with organization
Braille Devices

• Braille writers
• Notetakers
• Embossers
Technology Sources

• National Manufacturers

• National catalog companies

• State / local distributors
National Manufacturers

• Dolphin: www.yourdolphin.com
• Freedom Scientific: www.freedomscientific.com
• HIMS: www.hims-inc.com
• Humanware: www.humanware.com
• Kurzweil: www.kurzweiledu.com
• Perkins: www.perkinsproducts.org
• Telesensory: www.telesensory.com
National Catalog Companies

• Enablemart: www.enablemart.com
• Independent Living Aids: www.independentliving.com
• LS&S: www.lssproducts.com
• Maxi Aids: www.maxiaids.com
• Magnifying Aids: www.magnifyingaids.com
State / Local Distributors

- Audio Optical Systems of Texas: [www.kurzweilaustin.com](http://www.kurzweilaustin.com)
- Christal Vision: [www.christal-vision.com](http://www.christal-vision.com)
- HIMS: [www.hims-inc.com](http://www.hims-inc.com)
- Kewing: [www.kewing.com](http://www.kewing.com)
- Lighthouse of Houston: [www.houstonlighthouse.org](http://www.houstonlighthouse.org)
Deaf /Hard of Hearing

- Cap Tel phones
- Video phones
- FM listening devices
- Captioning
- Communication boards
- Apps
Sources

- Captel: www.captel.com/captel/phones
- Enablemart: www.enablemart.com
- HARC: www.harc.com/
- Apps: Clear Captions: www.clearcaptions.com/
Mobility Impairment: Low Tech

- Reachers
- Mouth sticks
- Head sticks
- Page turners
Mobility Impairment

- Voice recognition software: Ex: Dragon
- Ergonomic keyboards
- One handed keyboards
- Accessible computer desks
- Switches
Sources

• Enablemart: www.enablemart.com
• Nuance: www.nuance.com: maker of Dragon, Via Voice, and MacSpeech software
• Frogpad: www.onehandedkeyboard.com/frogpad.html
• Enabling Devices: http://enablingdevices.com/catalog
Learning Differences – Low Tech

- Planners / Organizers
- Outlines
- Highlighters
- Covered overlays
Learning Differences

• Software:
  – Word prediction
  – Spell checking
  – Voice recognition
• Reading machines
• Digital book players
• AAC device
Sources

• Attainment Company:
  – www.attainmentcompany.com/assistive-technology
  – 800-327-4269

• Don Johnston Inc:
  – www.donjohnston.com
  – 800-999-4660

• Dynavox:
  – www.dynavoxtech.com
  – 866-DYNAVOX

• Enabling Devices:
  – www.enablingdevices.com/catalog
  – 800-832-8697
Built-in Computer Tech

• For Mac: [www.apple.com/accessibility/osx/](http://www.apple.com/accessibility/osx/): Features:
  – VoiceOver
  – Zoom
  – Dictation
  – iMessage
  – Switch Control

• For Windows: [http://windows.microsoft.com/en-us/windows/what-accessibility-features-windows-offer#1TC=windows-7](http://windows.microsoft.com/en-us/windows/what-accessibility-features-windows-offer#1TC=windows-7): Features:
  – Magnifier
  – Narrator
  – On-screen keyboard
Free software / apps

Screen readers:
  NVDA: www.nvaccess.org/
  System Access to Go: http://satogo.com/en

Desktop Magnifier:
  Desktop Zoom:
    http://users.telenet.be/littlegems/MySoft/DesktopZoom/Index.html

App:
  i-Cam:
Examples of Apps

• Blindsquare: (iOS): navigation
• Eye Note: (iOS): money reader
• Hearing Aid – Cochlear: (Android): hearing
• Planat.com: business accessibility
• PTSD Coach: (iOS / Android)
• Speech4Good: (iOS): communication
• Tap Tap: (iOS): alerting
• Tap Tap See: (iOS): object identifier
Navigation in the Library

- Braille / large print signage
- Wheelchair symbol for accessible workstations and restrooms
- Automatic doors
- Strobe lights for fire alarm
- Signage for TTY or video phones
Places to Learn About Technology


• Lighthouses for the Blind: Austin, Dallas, East Texas, El Paso, Houston, San Antonio, South Texas, West Texas

• Texas Technology Access Program (TTAP): 800-828-7839, http://techaccess.edb.utexas.edu/
More Places

• United Cerebral Palsy: [www.ucp.org](http://www.ucp.org)
• Muscular Dystrophy Association: [www.mdausa.org](http://www.mdausa.org)
• Multiple Sclerosis Society: [www.nationalmssociety.org/](http://www.nationalmssociety.org/)
• Ability Connection Texas (Dallas): 214-247-4539, [www.abilityconnectiontexas.org/at_rltt.php](http://www.abilityconnectiontexas.org/at_rltt.php)
• AFB Center on Vision Loss (Dallas): 214-352-7222, [wwwafb.org/info/programs-and-services/center-on-vision-loss/12](http://wwwafb.org/info/programs-and-services/center-on-vision-loss/12)
• George Foundation Assistive Technology Lab Services: [http://bridgingapps.org/assistive-technology-evaluations/](http://bridgingapps.org/assistive-technology-evaluations/), three locations in Houston
Where to Look Online

- American Foundation for the Blind (AFB): [wwwafb.org/info/programs-and-services/technology-evaluation/12](http://wwwafb.org/info/programs-and-services/technology-evaluation/12)
- Center on Technology and Disability (CTD): [www.ctdinstitute.org/](http://www.ctdinstitute.org/)
- Closing the Gap: [www.closingthegap.com/](http://www.closingthegap.com/)
- Tech Soup: [www.techsoup.org](http://www.techsoup.org)
Training Sites

• Access Technology Institute: 520-300-7859, www.blind.training
• Accessible Technology Coalition: http://atcoalition.org/
• Carroll Tech: www.carrolltech.org/
• Cisco Academy for the Visually Impaired (CAVI): 914-620-2284, www.cavitraining.com/
Other Sources

- Flying Blind / Top Tech Tidbits: [www.flying-blind.com](www.flying-blind.com)
- Hadley School for the Blind: 800-323-4238, [www.hadley.edu](www.hadley.edu)
- National Federation of the Blind International Braille and Technology Center: [https://nfb.org/ibtc1](https://nfb.org/ibtc1)
- American Foundation for the Blind sells computer tutorials: 800-223-1839, [www.aph.org](www.aph.org)
Funding – For Libraries


• The Foundation Center: [http://foundationcenter.org/getstarted/topical/disabilities.html](http://foundationcenter.org/getstarted/topical/disabilities.html)

• ASCLA: [www.ala.org/ascla/asclaissues/issues](http://www.ala.org/ascla/asclaissues/issues) :
  – LSTA Success Stories
  – ADA information
  – library-related information for various disabilities
Funding – For Individuals

• DARS: 800-628-5115, www.dars.state.tx.us - for school or work
• STAP: www.dars.state.tx.us/dhhs/stap.shtml - for specialized telephones and accessories
Funding for Individuals Part 2


• Equipment loan closets: DARS, MDA, MS Society, Dallas Lighthouse, local elderly organizations


• UCP Bellows Fund: http://ucp.org/resources/assistive-technology/the-ucp-elsie-s-bellows-fund/
Discounted / Used Tech Sources

• Blind Bargains: www.blindbargains.com
• Different Needz: www.differentneedz.com/
• Disabled Dealer: www.disableddealer.com
• Mobility Auction: www.mobilityauction.com/
• RESNA AT Device Re-use Programs:
  – Project MEND: 210-223-6363 or 888-903-6363, www.projectmend.org/
One More Resource

• Window Eyes for Office: www.windoweyesforoffice.com/ Microsoft, in collaboration with AI Squared, is offering customers who have a licensed version of Office 2010 or later the ability to download Window-Eyes, a screen reader for Windows PCs, free of charge.
Still More About Funding / Free Apps

• For AAC Apps and Devices:  

• Audient: assistance with hearing aids:  
  www.audientalliance.org/patient.php

• Assistive Technology Industry Association:  
  www.atia.org/i4a/pages/index.cfm?pageid=4219

• Travis Roy Foundation grants for those with spinal cord injuries:  
  www.travisroyfoundation.org/sci/grants/
AT Links

- http://webaim.org/articles/motor/assistive
- https://www.washington.edu/doit/assistive-technology
Glossary of Terms

- AAC: Augmentative and Alternative Communication
- ADA: Americans with Disabilities Act
- AFB: American Foundation for the Blind
- ALA: American Library Association
- ASCLA: Association of Specialized and Cooperative Library Agencies
- AT: Assistive Technology
- CCTV: Closed Circuit Television
- DARS: Department of Assistive & Rehabilitative Services
- LSTA: Library Services & Technology Act
- MDA: Muscular Dystrophy Association
- MS: Multiple Sclerosis
Glossary of Terms Part 2

• NFB: National Federation of the Blind
• NBP: National Braille Press
• NIDCD: National Institute on Deafness and other Communication Disorders
• RESNA: Rehabilitation Engineering & Assistive Technology Society of North America
• STAP: Specialized Telecommunications Assistance Program
• TTAP: Texas Technology Access Program
• TTY: teletype (text telephone for the deaf)
• UCP: United Cerebral Palsy
DIRC Information

• My contact info:
  – Dina Abramson
  – 800-252-9605 (toll free in Texas) / 512-463-5458
  – dabramsn@tsl.texas.gov

• Materials available from the DIRC:
  – AT Funding Guide
  – AT & Computer Training fact sheet
  – Apps fact sheet
  – Android v Apple fact sheet
  – Technology lists for CCTV’s, magnification and speech software, reading machines, and voice recognition software
  – Deaf resources
  – more
THANKS for ATTENDING