

# Assistive Technology

WHAT it is

How to LEARN about it

WHERE you can obtain it

How you can PAY for it

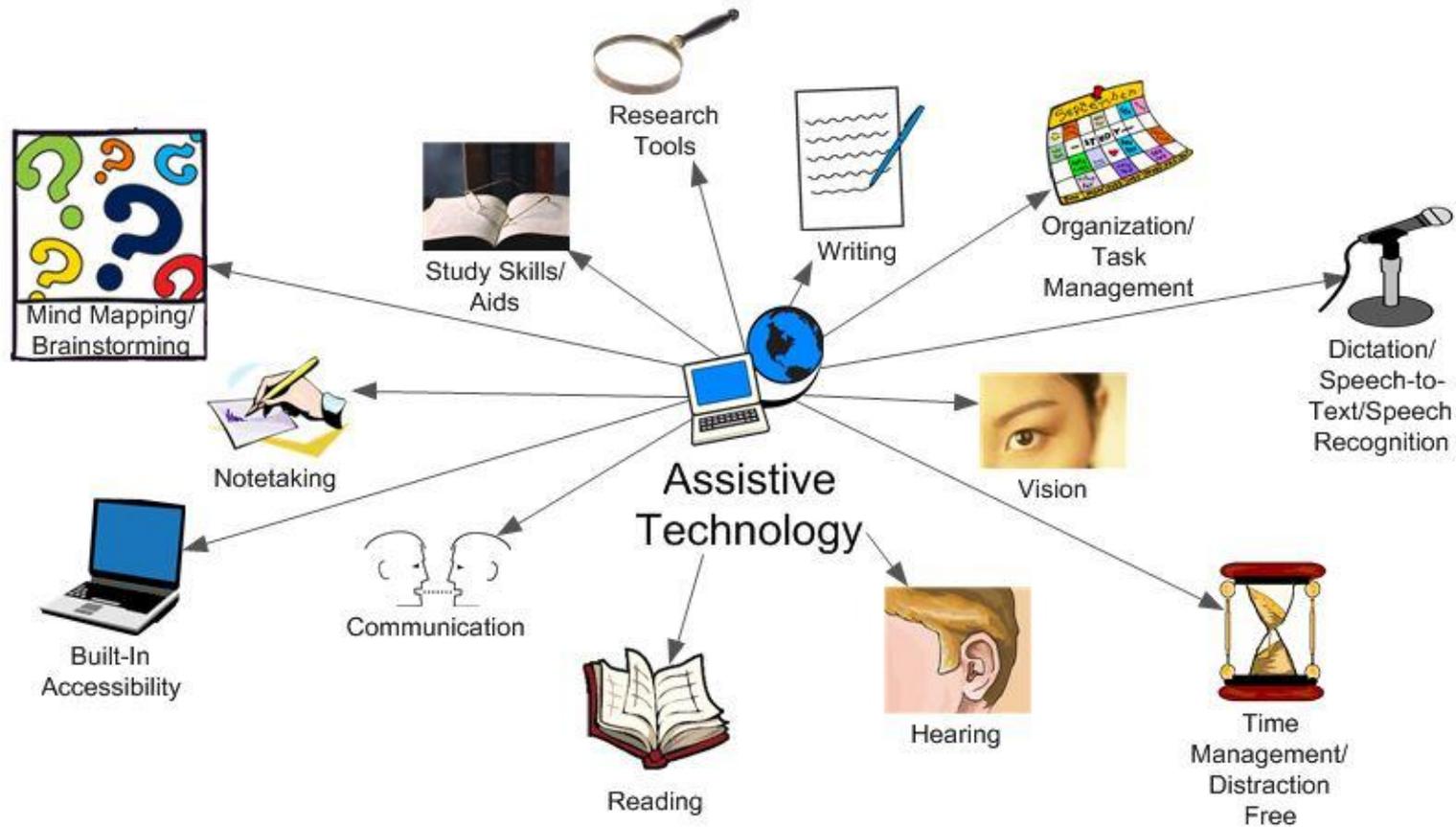
# What is Assistive Technology

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](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](http://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](http://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](http://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](http://www.yourdolphin.com)
- Freedom Scientific: [www.freedomscientific.com](http://www.freedomscientific.com)
- HIMS: [www.hims-inc.com](http://www.hims-inc.com)
- Humanware: [www.humanware.com](http://www.humanware.com)
- Kurzweil: [www.kurzweiledu.com](http://www.kurzweiledu.com)
- Perkins: [www.perkinsproducts.org](http://www.perkinsproducts.org)
- Telesensory: [www.telesensory.com](http://www.telesensory.com)

# National Catalog Companies

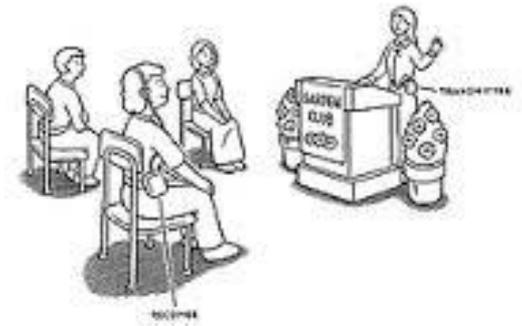
- Enablemart: [www.enablemart.com](http://www.enablemart.com)
- Independent Living Aids:  
[www.independentliving.com](http://www.independentliving.com)
- LS&S: [www.lssproducts.com](http://www.lssproducts.com)
- Maxi Aids: [www.maxiaids.com](http://www.maxiaids.com)
- Magnifying Aids: [www.magnifyingaids.com](http://www.magnifyingaids.com)

# 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)
- Magnifiers & More / Northwest Hills Eye Care:  
<http://nwhillseyecare.pecaa-sites.com/>

# Deaf /Hard of Hearing

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



# Sources

- Captel: [www.captel.com/captel/phones](http://www.captel.com/captel/phones)
- Enablemart: [www.enablemart.com](http://www.enablemart.com)
- Hear More:  
[www.hearmore.com/store/default.asp](http://www.hearmore.com/store/default.asp)
- HARC: [www.harc.com/](http://www.harc.com/)
- Apps: Clear Captions:  
[www.clearcaptions.com/](http://www.clearcaptions.com/)

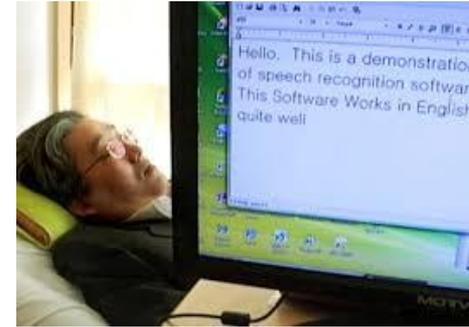
# Mobility Impairment: Low Tech

- 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](http://www.enablemart.com)
- Nuance: [www.nuance.com](http://www.nuance.com): maker of Dragon, Via Voice, and MacSpeech software
- Frogpad:  
[www.onehandedkeyboard.com/frogpad.html](http://www.onehandedkeyboard.com/frogpad.html)
- Enabling Devices:  
<http://enablingdevices.com/catalog>

# Learning Differences – Low Tech

- Planners / Organizers
- Outlines
- Highlighters
- Covered overlays



Working Title --
Opening Topic Sentence --
Significance of Topic (practical, clinical, research) --
Background --
Key Idea/Definition --
Key Idea/Definition --
Gap or Conflict --
Overview Statement --
Focus --
Preview --



# Learning Differences

- Software:
  - Word prediction
  - Spell checking
  - Voice recognition
- Reading machines
- Digital book players
- AAC device



# Sources

- Attainment Company:
  - [www.attainmentcompany.com/assistive-technology](http://www.attainmentcompany.com/assistive-technology)
  - 800-327-4269
- Don Johnston Inc:
  - [www.donjohnston.com](http://www.donjohnston.com)
  - 800-999-4660
- Dynavox:
  - [www.dynavoxtech.com](http://www.dynavoxtech.com)
  - 866-DYNAVOX
- Enabling Devices:
  - [www.enablingdevices.com/catalog](http://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>: Features:
  - Magnifier
  - Narrator
  - On-screen keyboard

# Free software / apps

Screen readers:

NVDA: [www.nvaccess.org/](http://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:

<http://clarixusa.com/index.php/products/apps>

# 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

- DARS: 800-628-5115, [www.dars.state.tx.us](http://www.dars.state.tx.us) : blind, deaf, early childhood education, rehabilitation
- Independent Living Centers: 512-371-7353, [www.txsilc.org](http://www.txsilc.org)
- 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.mdaua.org](http://www.mdaua.org)
- Multiple Sclerosis Society: [www.nationalmssociety.org/](http://www.nationalmssociety.org/)
- Ability Connection Texas (Dallas): 214-247-4539,  
[www.abilityconnectiontexas.org/at\\_rlitt.php](http://www.abilityconnectiontexas.org/at_rlitt.php)
- AFB Center on Vision Loss (Dallas): 214-352-7222,  
[www.afb.org/info/programs-and-services/center-on-vision-loss/12](http://www.afb.org/info/programs-and-services/center-on-vision-loss/12)
- George Foundation Assistive Technology Lab Services:  
<http://bridgingapps.org/assistive-technology-evaluations/>,  
three locations in Houston

# Where to Look Online

- American Foundation for the Blind (AFB):  
[www.afb.org/info/programs-and-services/technology-evaluation/12](http://www.afb.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/)
- National Federation of the Blind (NFB):  
<https://nfb.org/technology-center>
- NIDCD:  
[www.nidcd.nih.gov/health/hearing/pages/assistive-devices.aspx](http://www.nidcd.nih.gov/health/hearing/pages/assistive-devices.aspx)
- Tech Soup: [www.techsoup.org](http://www.techsoup.org)

# Training Sites

- Access Technology Institute: 520-300-7859, [www.blind.training](http://www.blind.training)
- Accessible Technology Coalition: <http://atcoalition.org/>
- Blind Access Training: 877-774-7670, <http://blindacesstraining.com/>
- Carroll Tech: [www.carrolltech.org/](http://www.carrolltech.org/)
- Cisco Academy for the Visually Impaired (CAVI): 914-620-2284, [www.cavittraining.com/](http://www.cavittraining.com/)

# Other Sources

- AccessWorld: [www.afb.org/aw/main.asp](http://www.afb.org/aw/main.asp)
- Flying Blind / Top Tech Tidbits: [www.flying-blind.com](http://www.flying-blind.com)
- Hadley School for the Blind: 800-323-4238, [www.hadley.edu](http://www.hadley.edu)
- National Federation of the Blind International Braille and Technology Center: <https://nfb.org/ibtc1>
- American Foundation for the Blind sells computer tutorials: 800-223-1839, [www.aph.org](http://www.aph.org)
- National Braille Press sells computer tutorials: 888-965-8965, [www.nbp.org](http://www.nbp.org)

# Funding – For Libraries

- Institute of Museum and Library Services:  
[www.imls.gov/programs/default.aspx](http://www.imls.gov/programs/default.aspx) : LSTA Grants (Library Services & Technology Act) : Profile for Texas:  
[www.imls.gov/programs/state\\_profile\\_Texas.aspx](http://www.imls.gov/programs/state_profile_Texas.aspx)
- The Foundation Center:  
<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](http://www.dars.state.tx.us) - for school or work
- STAP: [www.dars.state.tx.us/dhhs/stap.shtml](http://www.dars.state.tx.us/dhhs/stap.shtml) - for specialized telephones and accessories
- Computers for the Blind: 214-340-6328, [www.computersfortheblind.net](http://www.computersfortheblind.net) – refurbished computer and software for a donation

# Funding for Individuals Part 2

- National Deaf-Blind Equipment Distribution Program: 800-825-4595, [www.icanconnect.org/](http://www.icanconnect.org/)
- Equipment loan closets: DARS, MDA, MS Society, Dallas Lighthouse, local elderly organizations
- TTAP: 800-828-7839, <http://techaccess.edb.utexas.edu/loan.php>: “Try before you buy” device loans
- UCP Bellows Fund: <http://ucp.org/resources/assistive-technology/the-ucp-elsie-s-bellows-fund/>

# Discounted / Used Tech Sources

- Blind Bargains: [www.blindbargains.com](http://www.blindbargains.com)
- Different Needz: [www.differentneedz.com/](http://www.differentneedz.com/)
- Disabled Dealer: [www.disableddealer.com](http://www.disableddealer.com)
- Mobility Auction: [www.mobilityauction.com/](http://www.mobilityauction.com/)
- RESNA AT Device Re-use Programs:
  - Project MEND: 210-223-6363 or 888-903-6363, [www.projectmend.org/](http://www.projectmend.org/)
  - REACH of Denton: 210-223-6363 or 888-903-6363, [www.projectmend.org/](http://www.projectmend.org/)

# One More Resource

- Window Eyes for Office:  
[www.windoweyesforoffice.com/](http://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:  
<http://app.aactechconnect.com/freetools/?prodmanufact> and [www.aacfundinghelp.com/](http://www.aacfundinghelp.com/)
- Audient: assistance with hearing aids:  
[www.audientalliance.org/patient.php](http://www.audientalliance.org/patient.php)
- Assistive Technology Industry Association:  
[www.atia.org/i4a/pages/index.cfm?pageid=4219](http://www.atia.org/i4a/pages/index.cfm?pageid=4219)
- Travis Roy Foundation grants for those with spinal cord injuries:  
[www.travisroyfoundation.org/sci/grants/](http://www.travisroyfoundation.org/sci/grants/)

# AT Links

- <http://webaim.org/articles/motor/assistive>
- <http://assistivetechologyforeducation.com/examples-of-assistive-technology/>
- [http://www.brainline.org/content/2009/11/assistive-technology-glossary\\_pageall.html](http://www.brainline.org/content/2009/11/assistive-technology-glossary_pageall.html)
- <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](mailto: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**