

Assistive Technology

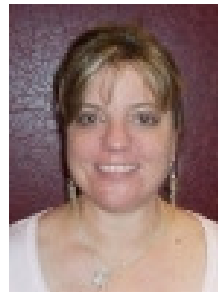


Presented by
PACER Center's Simon Technology Center
Thursday September 8, 2011



Presenter

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 - Assistive Technology Specialist
 - stc@pacer.org



PACER Center

- Not-for-profit organization
- Serving families of children with disabilities
- Primarily staffed by parents of children with disabilities
- Over 30 different programs
- www.pacer.org



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Simon Technology Center Services

- Assistive Technology Information and Referral
- Simon Technology Center Library & A.T. Finder
 - www.pacer.org/stc/atfinder
- Free Assistive Technology Consultations
- Free workshops
- In-service trainings



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Get Connected

- **Simon Technology Center BlogSpot**
 - www.simontechnologycenter.blogspot.com
- **Simon Technology Center Facebook Page**
 - www.facebook.com/pages/Simon-Technology-Center
- **Twitter**
 - <http://twitter.com/bgilormini>
- **YouTube**
 - www.youtube.com/pacercenter



Learning Objectives

- Participants will receive a brief overview of Assistive Technology
- Participants will learn how assistive technology can improve lives
- Participants will learn about statewide resources available to help acquire AT

What is Assistive Technology



Assistive Technology Device

- As defined by IDEA and other legislation:
- Any item, piece of equipment, or product system
 - purchased commercially off the shelf
 - modified
 - customized
- Used to
 - increase
 - maintain
 - improve functional capabilities of a student with a disability



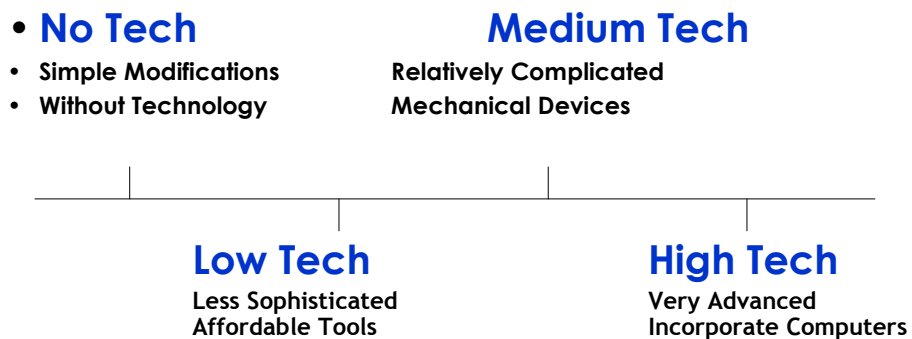
Assistive Technology Service

- Selection
 - Information, Referral & Evaluation Services
- Acquisition
 - Services to locate funding
 - Information & Referral Services
- Use
 - Trainings
 - Technical Support Services



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AT Continuum



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Benefits of Assistive Technology

- Increase participation and inclusion
- Promote development
- Enhance learning
- Boost self-esteem
- Enhance communication
- Increase independence
- Broaden life opportunities

Assistive Technology Categories

- Daily Living Aids
- Mobility & Ambulation Aids
- Vision & Hearing Technology
- Seating & Positioning
- Educational Aids
- Sensory Aids
- Communication Tools
- Environmental Control
- Computer Access Adaptations

Daily Living Aids

- Utensil Cuff
- One-Handed Jar Opener
- Reacher
- Adapted Cutting Board



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Mobility and Ambulation Aids



- Manual Wheelchairs
- Power Wheelchairs
- Platform Walker
- Scooter
- Canes

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Vision Technology



Video
Magnifier



Screen Reading and
Screen Enlargement
Software



Talking
Calculator

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Vision Technology

- Dolphin Super Nova (\$1,195) free trial download

➤ www.yourdolphin.com/dolphin.asp

- Jaws PC Screen Reader (\$895)

➤ www.freedomscientific.com

- [VoiceOver](http://www.apple.com/accessibility/voiceover/) Apple Screen Reader

➤ <http://www.apple.com/accessibility/voiceover/>

➤ Included in [OS 10.5 and higher](#)

- [Windows Accessibility](#) Narrator

➤ windows.microsoft.com/en-US/windows/help/accessibility

➤ Windows 7, Vista, and XP

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Hearing Technology

Personal
Amplification
System



- Harris Communications

- www.harriscomm.com

- Hear-More

- www.hearmore.com

Vibrating
Clock



Baby Cry
Signaler

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Seating & Positioning

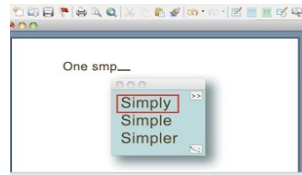
- Head and Neck Support
- Postural Support Seating and Standing System
- Mobile Wrist Support for Keyboarding



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Educational Aids

- **Writing Needs:** Co:Writer 6
- Talking Word Processors
- Portable Note-takers & Spellers
- Word Prediction
- Voice Recognition



- **Reading Needs:** Start to Finish
- Books on CD-Rom
- E-Text Readers
- E-Text Books
- Scan and Read Programs



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Educational Aids

- **Math Aids**
- CalcuScan
- Highlighter tape
- Graph paper
- Rulers – (magnification, raised lines, or large print)
- Calculators (big button, talking, etc.)



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Sensory Aids

- Increase Attention
- Improve Focus
- Reduce Aggression
- Decrease Anxiety
- Eliminate distractions
- Develop balance & coordination



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Communication Tools

- Symbol Communication
- VOCA - Voice Output Communication Aids
 - Synthesized speech
 - Digitized speech
- Features
 - Message Buttons
 - Levels & Branching
 - Access Method



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Environmental Control Aids

- Voice Activated Environmental Control
- Switch Accessible Environmental Control



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Computer Access



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Windows Ease of Access

- Display and Readability
- Sounds and Speech
- Keyboard and Mouse
- Voice Recognition



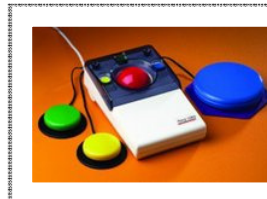
Mac Universal Access

- Zoom
- Display Adjustment
- Sticky or Slow Key adjustments
- Visual Alert
- Talking Alerts and Spoken Items
- On screen Keyboard Navigation
- VoiceOver



Mouse Alternatives

- Trackball/Joystick
- Electronic Pointing Devices
- Voice Recognition
- Touch Screen



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Computer Access

- Alternative Keyboards
- Layout
- Variable Sizes
- Programmable
- On-Screen
- Scanning



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Switch + Switch Interface = Computer Access

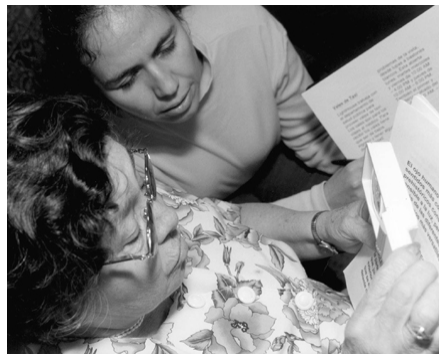


- Many
 - styles
 - types
 - sizes



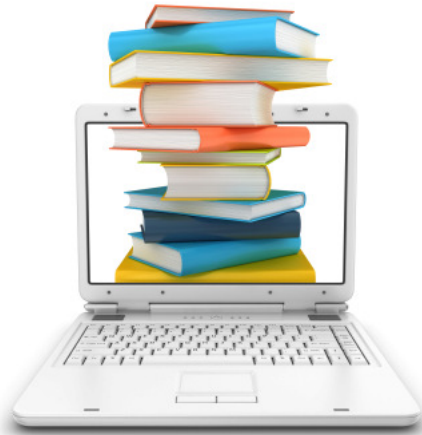
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Current Trends in Assistive Technology



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Electronic and Audio Text



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Digital Books

- Books in digital format which can be accessed electronically
- Digital electronic text
- Commonly called "e-books"
- Digital audio file
- Recorded and used with audio players



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Why E-Books?

- E-books:
 - are compact and portable.
 - can be reformatted and enlarged for easier viewing.
 - can be read aloud by a computer.



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E-text vs. Audio Files

- | | |
|---|--|
| <ul style="list-style-type: none">• Digital Electronic Text<ul style="list-style-type: none">– Visible text on screen– Can be converted into audio file– Read out loud with text to speech programs | <ul style="list-style-type: none">• Digital Audio Files<ul style="list-style-type: none">– No text available– Played with audio players– Example: books on CD/tape |
|---|--|



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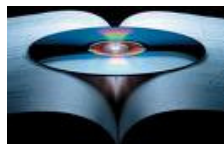
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DAISY Format

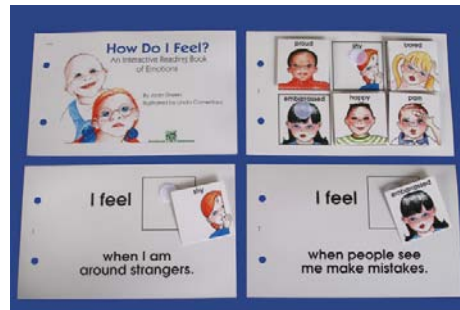
- **DAISY: Digital Accessible Information System**
-
- Allows navigation access of a digital book similar to a physical book
 - Place bookmarks
 - Navigate by page number
 - Navigate by chapter
 - Navigate by section
- Where to find Daisy formatted electronic text:
www.Bookshare.org



Software and Hardware for Playing E-Books



Boardmaking Tools



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Board Making Tools

- Boardmaker
 - industry standard
- Currently 10 different tools for creating visual supports

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Board Making Tools

- **Boardmaker**
- **Mrs. Riley**
- Overboard
- PHOTOSyms
- Picture It
- Picture This
- **PogoBoards**
- **TheraSimplicity**
- SymbolMate
- Word

Web Based Applications



Tar Heel Reader

- Free library of books created for teens and adults
- repetition with variety
- thousands of books created by educators and parents from around the world
- www.tarheelreader.org
- invitation code: Literacy!

Open Source Technology



Open Source Solutions

- Open Source Technology is free computer technology available to everyone
- www.oatsoft.org



Mainstream Technology



Livescribe SmartPen

- Records and links audio to what you are writing
- Listen to recording by tapping on what you wrote
- 2 GB Echo Pen = \$99.95
- 8 GB Echo Pen = \$199.95
- www.livescribe.com



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Apple iPod Touch/iPad 2

- Many educational apps
- Very mainstream
- Built in accessibility features:
 - VoiceOver
 - Screen Zoom
 - Inverted colors



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Mobile Technology



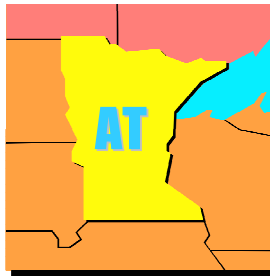
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cell phones

- recording features for recording notes or reminders
- camera
- calendar and alerts
- depending on model and carrier
 - access to apps or device specific programs

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Overview of AT Resources in Minnesota



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Assessment Providers

- PACER Simon Technology Center, Bloomington, MN
 - free, informal consultations, not a formal evaluation
 - www.pacer.org or 952-838-9000
- Gillette Children's Specialty Healthcare, St. Paul, MN
 - Mobile AT Service serves out-state Minnesota
 - www.gillettechildrens.org or 651-291-2848
- Courage Center, Golden Valley, MN
 - www.courage.org or 763-520-0361
- STAR Program web site lists a comprehensive listing of Minnesota AT Service Providers
 - www.admin.state.mn.us/assistivetechology/
 - call 1-800-657-3862 (Greater MN)

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Funding for AT

- K-12 public schools are required to provide evaluations and devices included in the student's IEP – school may pay for the equipment but then school owns it.
- Private insurance
- Government health care programs such as:
 - Medical Assistance (MA)
 - Medicare
 - Community-based Waiver Programs
 - Vocational Rehabilitation
- Community Service groups such as Lions, Elks
- Low-interest loans
 - Assistive Technology Minnesota for more information on their Micro Loan Program in Maple Plain, MN
 - Web site: www.atmn.org or call 1-866-535-8239

Funding for AT

- **STAR Program (A System of Technology to Achieve Results)**
- Publishes the *Directory of Funding Resources for Assistive Technology in Minnesota*
- Manual is online at:
www.admin.state.mn.us/assistivetechonology
- Phone: 800-657-3862 for free copy

AT Loan Programs

- **PACER Simon Technology Center**
- AT FINDER offers software and devices
- Open to professionals and families of students with disabilities in Minnesota
- Yearly membership fees
 - \$100 for professionals; \$50 for families
- Can borrow up to 3 items for a 4 week loan period
- Contact Information:
 - PACER at 952-838-9000
 - www.pacer.org/stc



AT Loan Programs

- **Minnesota AT Loan Network (MATLN)**
- Augmentative communication device and software library available to consumers working with a professional service provider
- Database is online
- Contact Information:
 - United Cerebral Palsy of Minnesota
 - St. Paul, MN
 - Tel: 800-328-4827
 - www.admin.state.mn.us/assistivetechonology/matln_website/matln.html



AT Loan Programs

- **Goodwill / Easter Seals**

- Durable medical equipment
 - Walkers, Crutches, Canes, Commodes, etc
- Loan to consumers for up to 6 months
- Contact Information:
 - 553 Fairview Ave. N.
 - St. Paul, MN 55104
 - 651-379-5922
 - http://mnges.easterseals.com/site/PageServer?pagename=MNDR_community_resources



AT Loan Program

- **UCP Central MN**

- AT lending library
- Contact Information:
- Matt Koob
 - 510 25th Avenue, St. Cloud, MN 56303
 - 320-253-0765
 - <http://www.ucpcentralmn.org/>



AT Loan Programs

- **Telephone Equipment Distribution Program**

- Minnesota Department of Human Services
- Adaptive telecommunications equipment
- Long-term loan of equipment
- Minnesotans with communication or mobility impairments
- Provide consultations to assess need
- Device training for some
- Contact Information:
 - 12 Civic Center Plaza, Suite 1670
 - Mankato, MN 56001
 - www.tedprogram.org or 800-311-1148



Buy/Sell Used AT

- **SUPER Service**

- Stil l Useful Product and Equipment Referral
- Connects buyers and sellers of assistive technology and used equipment for FREE!
- Visit the SUPER Service at our website!
- www.pacer.org/stc/super



Low-Cost Computers

- programs that refurbish computers and provide them to applicants
- check individual programs for requirements and applications
- Minnesota Computers for Schools
- PCs for People
- Computers Go Round
- and more

STAR Minnesota STAR Program

- A System of Technology to Achieve Results
- Listing of MN Assessment Providers
- AT Funding Resources Statewide
- STAR Point Real Time Stream - 24 hour Webcast
- Minnesota Regions Assistive Technology Collaborative
- Contact Information
- www.admin.state.mn.us/assistivetechonology
- 800-657-3862

Family Center on Technology and Disability

www.fctd.info

- a resource designed to support organizations and programs that work with families of children and youth with disabilities by offering a range of information and services on the subject of assistive technologies



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Other AT Resources

- Alliance for Technology Access - www.ataccess.org
- Closing the Gap - www.closingthegap.com
- Disability Linkage Line - 1-866-333-2466
Family Center on Technology & Disability - www.fctd.info
- National Information System for Assistive Technology - nisat.info/index.php/page/home

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Thank You!

