MS Society Assistive Technology Discussion & Links
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1. INTRODUCTORY DISCUSSION:

A. Assistive Technologies Address: Adaptive Aids for Daily Living Needs; Augmentative Communication Systems; Environmental Control Systems; Home/Worksite Modifications; Prosthetics and Orthotics; Seating and Positioning (Wheelchairs); Computer Technologies

B. What Can Assistive Technology Do? Compensate (to a degree) for a disability; Provide access to work materials and information; Does NOT "fix" the disability

C. What Kind of Tools Exist that May Assist You in the Workplace? Low Tech & High Tech Solutions.

Low Tech Solutions will not be discussed in detail; although any questions will be explored. Explore these types of websites to examine the thousands of simple productivity tools available:
www.sammonspreston.com **&** www.maxiaids.com

2. General Assistive Technology Resources

Able Data: Searchable database of 19000 assistive technology products www.abledata.com
Ability Hub: www.abilityhub.com
ATIA: Assistive Technology Industry Association www.atia.org
California State University Northridge (CSUN): www.csun.edu/cod
Closing The Gap Conference (mostly kid stuff but good) www.closingthegap.com

3. Modifying Your Computer or Tablet Operating System for Accessibility

Mac http://www.apple.com/accessibility/
iPad: http://support.apple.com/kb/HT4064
Windows www.microsoft.com/enable
Universal Design for Learning www.cast.org

4. Tools for Physical Impairments

What Movement Can Be Used for Access?

• Any body-part • Any degree of movement • Any degree of control
• Breath, eye-blink, muscle twitch, eye-gaze, speech, eventually brain-waves

Low Tech Supports:

• Keyguards, Typing/Writing Splints, Arm Supports, Headstick/Mouthstick

Hardware/Peripheral Supports:

• Built-in Typing Modifications: Macintosh's Universal Access & Windows' Accessibility Wizard
• Alternative Keyboards: smaller, larger, altered shapes, one-handed, varied colors, & onscreen keyboards
• Alternative Mouse Types: size, shape, trackball, touchpad, joystick, touch-screen, head or

eye controlled

Software Supports: Voice Input (Speech to Text)

• Dragon Naturally Speaking (voice dictation) nuance.com/naturallyspeaking/
• ViaVoice www.nuance.com/viavoice/osx/
• MacSpeech www.macspeech.com/

5. Tools for Visual Impairments

Low Tech Supports: Built in color, contrast, magnification, text to speech of computers
Apple Accessiblity: www.apple.com/education/accessibility
Microsoft Accessibility: Microsoft accessibility products and services
www.microsoft.com/enable

High Tech Supports:

• A video magnifier, or closed-circuit television (CCTV) system
Topaz & Onyx: www.freedomscientific.com

Voice Feedback (Text converted to Speech)

• Macintosh Features: www.apple.com/macosx/features/speech/
• ReadPlease www.readplease.com/
• CoolSpeech www.bytecool.com/
• TextSound www.bytecool.com/
• Window-Eyes www.visioncue.com/products_02_01.html

Software Supports: Screen Magnifiers, Text-to-Speech, & Screen Readers

• LunarPlus www.yourdolphin.com
• MAGic www.freedomscientific.com
• ZoomText www.aisquared.com/index.cfm
• Key to Access Talking Word Processor: www.readingmadeez.com
• Key to Access Universal Reader: www.readingmadeez.com
• Key to Access Text-To-Audio converter: www.readingmadeez.com
• Talking Checkbook: www.readingmadeez.com

Scanning Reading Appliance

• SARA by www.freedomscientific.com

6. Tools for Increasing Output

Math Output: For work that requires use of mathematical symbols

• Math Type www.dessci.com/en/products/mathtype/
• Talking Calculator www.readingmadeez.com

Written Language Tools: assistance with writing/reading output/productivity

• Word Bar www.cricksoft.com/us/products/
• WordQ & SpeakQ www.wordq.com/
• Read & Write Gold www.texthelp.com
• SOLO (Read Outloud/CoWriter) www.donjohnston.com/
• Wynn www.freedomscientific.com/LSG/support/wynn_support.asp
• Kurzweil 3000 kurzweiledu.com/kurz3000.aspx
• Key to Access: www.readingmadeez.com

Idea Organization Tools
• SOLO (Write Outloud/DraftBuilder) www.donjohnston.com/
• Inspiration www.inspiration.com/productinfo/inspiration/index.cfm
• Outlook, Entourage

6. Hand Held Tools for Organization & Productivity
Auditory cueing devices
www.attainmentcompany.com
Digital Voice Recorder Transcribers
www.sbinfocanada.about.com/od/officeequipment/tp/digtranscriber.htm
Pocket PC PDA w/ screen readers
www.yourdolphin.com/productdetail.asp?id=7
www.voice-assistant.com/ voice-assistant.com/parrot(web).jpg
Modifications for existing Pocket PC's & PDA's
www.microsoft.com/windowsmobile/voicecommand/default.mspx
www-306.ibm.com/software/pervasive/embedded_viavoice/
PDA Magnification
www.ubergizmo.com/15/archives/2007/07/magnifico_plus_pda_screen_magnifier.html
Palm Support for Disabilities
www.palm.com/us/company/corporate/pap/
Handheld Readers
www.nfb.org/nfb/Handheld_Reader.asp?SnID=112693025
Personal frequency modulation (FM) systems: improve listening for speakers
www.enablemart.com/Catalog/HearingHelperPersonalFMSystems?gclid=CIb5gcL8zJICFQEGxwodWGCCHw
Writing & Note-taking Tools
Livescribe Pen www.livescribe.com (records everything said while you're writing so you don't miss it)

7. Augmentative and Alternative Communication (AAC)
• Compensation, temporarily or permanently, for severe expressive communication disorders
• Can be used to supplement existing speech and replace speech that is not functional
Voice Amplification: for weaker voices
www.chattervox.com/
www.marilynelectronics.com/Speech-Amplifiers-s/84.htm
www.hearmore.com/
www.speechenhancer.com/index.htm
Augmentative Communication Devices: for absent voices
www.abilityhub.com/aac/aac-devices.htm (examples)

8. Organizing Personal Workspace
Desks: Large variety of accessible workstations - one example: www.anthro.com
Environmental Controls: Control house/office – one example: http://www.zygo-

usa.com/gewaprog.html
Telephones: Great variety of alternative phones – one example: www.ablephone.com/
Cell Phones: Growing accessibility for voice command, raised buttons, screen readers
http://www.visioncue.com/AccessiblePhones.html

9. CONCLUSION: KEY POINTS TO UNDERSTAND:

1. **THE MAIN CONCEPT: TECHNOLOGY IS A TOOL, NOT A SOLUTION; THE WAY IN WHICH YOU EMPLOY IT IS THE SOLUTION.**
2. **THE PRIMARY CHALLENGE IS TO UNDERSTAND THE SPECIFIC OBSTACLE YOU FACE, THEN FIND THE TECHNOLOGY THAT IS APPROPRIATE TO ADDRESS THE CHALLENGE.**
3. **NO PHYSICAL CHALLENGE IS AN OBSTACLE—THERE ARE DEVICES THAT ADDRESS EVERYTHING FROM ADAPTING A PENCIL TO CONTROLLING AN ENTIRE COMPUTER WITH YOUR EYES.**
4. **DETERMINING THE CORRECT TOOLS IS BEST ACCOMPLISHED WITH A TEAM—PERHAPS INVOLVING FRIENDS, FAMILY, AIDES, PHYSICIANS, AN ASSISTIVE TECH EXPERT, AND ESPECIALLY A SUPPORTIVE EMPLOYER.**

VALUABLE LINKS AT THE NATIONAL MS SOCIETY:

- HTTP://WWW.NATIONALMSSOCIETY.ORG/LIVING-WITH-MULTIPLE-SCLEROSIS/MOBILITY-AND-ACCESSIBILITY/ASSISTIVE-TECHNOLOGY/INDEX.ASPX
- HTTP://WWW.NATIONALMSSOCIETY.ORG/LIVING-WITH-MULTIPLE-SCLEROSIS/MOBILITY-AND-ACCESSIBILITY/ASSISTIVE-TECHNOLOGY/TECHNOLOGY-SOLUTIONS/INDEX.ASPX
- HTTP://WWW.NATIONALMSSOCIETY.ORG/LIVING-WITH-MULTIPLE-SCLEROSIS/MOBILITY-AND-ACCESSIBILITY/ASSISTIVE-TECHNOLOGY/TECHNOLOGY-SOLUTIONS/AFFORDABILITY/INDEX.ASPX

IPAD LINKS:
http://slpsharing.com/app-resources/
http://atiaipad.wikispaces.com/App+Features+-+Writing
http://www.oneplaceforspecialneeds.com/main/library_special_needs_apps.html
http://mobilelearning4specialneeds.wikispaces.com/Apps
atclassroom
http://.blogspot.com/2010/02/iphoneitouchipad-in-special-education.html
http://stoloff-law.com/blog/iphone-apps-that-help-people-with-disabilities-be-more-independent/