



CTTAP NEWS

Written in partnership with the
RESC Alliance for Assistive Technology



Spring, 2010

Inside this issue:

Introduction	1
ConnSENSE Bulletin	1
Feature Article: E-Text	2
getATstuff	3
AT Product Spotlight	4
Promising Practices	5
Off the Shelf AT	6
Local Happenings	7

Introduction *By Arlene Lugo, Program Director, CT Tech Act Project*

Spring has sprung! The flowers (and allergies) are in bloom. New devices have launched and an old, but valued website has been redesigned. In our Spring 2010 issue you can read about the new ConnSENSE Bulletin and the new Apple iPad as well as a very successful Assistive Technology user. Find out what items are available for recycling on the getATstuff website and learn about how electronic text or “E-Text” can help individuals access printed materials. Don’t forget to check our “Local Happenings” section to see the AT-related events that are coming up.

I hope you enjoy this issue. As always, feedback and article ideas are welcome! Please reach us via email at arlene.lugo@ct.gov or at 860-424-4881. Happy Spring!!!

New ConnSENSE Bulletin!

Contributed by Lee Learson, Editor, The ConnSENSE Bulletin

The new ConnSENSE Bulletin (www.connsensebulletin.com) has undergone an extensive design update and is now a collaborative partnership brought to you by the University of Connecticut, Pappanikou Center for Developmental Disabilities, The Connecticut Tech Act Project and the New England Assistive Technology (NEAT) Center at Oak Hill. The NEW website is dedicated to bringing you practical assistive technology resources that will assist professionals, individuals with disabilities and their families in accessing the assistive technology they need.

The ConnSENSE Bulletin began in 1984 by Chauncy Rucker, Ph.D. ConnSENSE is an acronym for Connecticut Special Education Network for Software Evaluation and was originally established as a printed newsletter dedicated to reviewing and evaluating software for students with disabilities. The original ConnSENSE Bulletin website was established in 1999. The new updated and revised ConnSENSE Bulletin website has expanded its focus to include all types of assistive technology and is dedicated to becoming an essential resource for professionals, individuals and families.

Continued on page 7

Assistive Technology (AT) is any item or piece of equipment that is used to increase, maintain or improve the functional capabilities of individuals with disabilities in all aspects of life, including at school, at work, at home and in the community.

Achievement through Technology

Feature Article: E-Text for Students with Print Disabilities

Page 2

Contributed by Carol Magliocco, Ph. D, P.T., A.T.P. and Amy T. Norton, M. Ed.,

What is e-text? Simply put, it is the electronic presentation of print materials. Reading the daily news from a website rather than the paper on your doorstep is an example of e-text. Besides delivering the information—as printed words on paper do-- e-text affords the possibilities of being read aloud and changes of presentation, such as to Braille, large print and more. Though e-text may include audio output, an audio book does not include the presentation of the printed word. Student needs should be assessed to determine which of these methods is most appropriate. While in the past we were limited to providing all of these students with access to the old standard of *books on tape*, now we can match students, who need assistance with visual tracking of the text and one-to-one correspondence of the spoken word, with an approach that better meets their needs.

The explosion in the availability of e-text and the devices that can be used to “read” the text has brought with it a fair amount of confusion. What options are available? Which students are eligible? What resources are the best match between available options and learner needs? Those of us who have worked in the field of assistive technology have long struggled to make print materials accessible to our students. Who among us hasn’t arduously scanned in page after page in order to create electronic text for our students with print disability? Today, federal funding supports programs that are designed to help provide electronic text in flexible formats that meet the needs of diverse learners.

The 2004 Individuals with Disabilities Education Improvement Act (IDEA), Part B – Assistance for Education of All Children with Disabilities provided for the creation of a National Instructional Media Accessibility Standard (NIMAS). One of the best resources for understanding NIMAS is the Center for Applied Special Technology (CAST) <http://nimas.cast.org>. The CAST website notes that NIMAS is a technical standard used by publishers to “produce source files using eXtensible Mark-up Language (XML) to mark up the structure of the original content and provide a means for presenting the content in a variety of ways and styles. Once a NIMAS fileset has been produced, the XML and image source files may be used not only for printed materials, but also to create Braille, large print, HTML, DAISY [Digital Accessible Information System] talking books using human voice or text-to-speech, audio files derived from text-to-speech transformations, and more.”

NIMAS files are available for use by students with a print disability (see the CAST website for further information on who qualifies) for text books produced after July 2006, provided that the district included language requesting the NIMAS file at the time of purchase. Sample contract language can be found at on the State Department of Education (SDE) website, http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/march_blog.pdf.

In Connecticut requests for NIMAS files can be submitted through Mike Smith a consultant with the SDE. If the district and student are eligible to receive the NIMAS file, the file is then made available through Bookshare (www.bookshare.org). In October of 2007, Bookshare received a \$32 million five-year award from the U.S. Department of Education to significantly expand the availability of accessible digital books and software for reading those books. Bookshare offers digital books produced from NIMAS source files and delivers them to students in the needed format. School districts create an organizational membership in which they identify sponsors (faculty and staff eligible to download books through the organizational account) and members (students who are print disabled and thus able to access materials through Bookshare). Membership procedures and qualifications for print disability can be found on the Bookshare website. Once a student is a member through the school’s account,



he/she can receive a free home membership by completing the forms available on the website. It should be noted that only sponsors can request and download textbooks from the Bookshare website. Bookshare has partnered with Don Johnston to provide eligible Bookshare members a free downloadable copy of Read:Outloud Bookshare for use with the DAISY files. Read:Outloud Bookshare “reads” the electronic materials and allows changes in the presentation of the format, such as providing a change in font size and/or text and background color.

Once the school has the book in an electronic format, it can then be made available for eligible students utilizing a desktop computer or laptop. This helps to address the frequently expressed concern that students with disabilities have had to use devices and materials for reading that are different from that of their peers. Often times, the stigma of being different contributes to lower self-esteem of the students and higher rates of abandonment of the technology devices and solutions. Some districts now are providing access to electronic text through the use of netbooks, tablet computers such as the 2goPC by CTL corporation designed for younger students, and Classmate Readers by Humanware. These smaller, portable devices allow for greater portability of the books throughout a student’s school day. How cool!

The AT Exchange: Recycling Assistive Technology works!

By Arlene Lugo, Program Director

Visit www.getATstuff.com to see the AT devices that are available for sale or for free throughout New England. If you do not have a computer, call the CT Tech Act Project at 860-424-4881 and we will be happy to search through the listings or post an AT device for you. Here are just a few items that can be found at getATstuff, the AT Exchange in New England:

ID	Category	Item Name	Price	Location
104	Daily Living	Speaker Telephone	FREE	New Milford, CT
1459	Daily Living	Hoyer Lift, Virtually New, with Seat	Best Offer	Wilton, CT
1446	Daily Living	Lift Chair	\$679.00	Fairfield, CT
1178	Daily Living	Folding Walker	\$32.00	Hartford, CT
1367	Mobility, Seating & Positioning	Heavy Duty Power Wheelchair Barely Used	\$1000.00	New Haven, CT
274	Mobility, Seating & Positioning	Quad Cane	\$16.00	Hartford, CT
1458	Mobility, Seating & Positioning	Quickie 2 Wheelchair, Motorized	Best Offer	Wilton, CT
517	Mobility, Seating & Positioning	Ramp	\$100.00 or Best Offer	Newington, CT
1346	Mobility, Seating & Positioning	STAIRLIFT	\$999.00 or Best Offer	Stratford, CT
1548	Speech Communication	Communication iChat	Best Offer	Gales Ferry, CT
1461	Transportation and Vehicle Modifications	Conversion Seat for SUV, For Disabled	Best Offer	Wilton, CT



On April 3, 2010, an exciting new piece of technology was released: Apple's iPad. At first glance, the iPad looks like an enlarged version of the iPhone or iPod touch. It is a 9.7 inch (diagonally) device with a multi-touch LCD display, rendering it over twice the width and height of the iPod touch and having four times the area. The iPad is the same thickness as the iPod touch and runs on the same operating system (OS) as the iPhone and iPod touch. Any "apps" that currently run on these devices will work on the iPad and are shown within the larger visual display. Developers are currently working on dedicated apps for the iPad. The current accessibility features with the iPhone and iPod touch are also available on the iPad such as Voice Over, screen zoom, white-on-black display and closed-captioned content. To learn more about the accessibility features available for the iPhone and the iPod touch, you can visit Apple's website: <http://www.apple.com/accessibility/resources/iphone.html>.



The iPad also features new accessibility options. The larger size is an obvious change. This allows greater access for those individuals with motor issues, opening the door for a larger number of users to be able to access this device. This will impact users of augmentative and alternative communication (AAC) software such as Proloquo2go (www.proloquo2go.com) as it is available for the iPad as well. The iPad comes with an internal onscreen keyboard with an option to purchase an additional external keyboard. An external keyboard will benefit all users who require tactile feedback from a keyboard, particularly those with vision impairment and for those individuals who have difficulty accessing keyboards requiring contact with the skin, such as people who use styluses and head pointers. Also, the external keyboard option will enable other accessible keyboards to be used assuming they are compatible. The iPad comes with built-in speakers that are louder than its counterparts. An app called "iBook," an e-book warehouse, will be released which will come with 30,000 free books available. For additional accessibility information on the iPad, visit: www.apple.com/ipad/features/accessibility.html



Currently, there are a plethora of assistive technology-related apps for the iPod touch/Phone which can be used with the iPad. Additionally, only more and more apps will be created specifically for the iPad over time. Please visit the following links for information regarding current apps for AT and education and enjoy using your iPad to assist individuals with disabilities with access to learning:

- Link to iPod touch/Phone apps for education: <http://www.scribd.com/doc/23745742/ICTAC-MEMO-iPhone-Apps-for-Education>
- Link to iPod touch/Phone AT apps: <http://speechlanguagepathologyspeaking.blogspot.com/2009/12/iphone-and-ipod-touch-apps-for-special.html>
- Blog for all things AT and Mac, which much of this information was gleaned from: <http://atmac.org>

Zoe is an amazing person. We met when she was turning three-years-old. I feel honored to have the ongoing opportunity to support her academic independence. Zoe was born without extremities, yet she has grown into an extraordinary child who is currently in 5th grade at East Rock School in New



Haven. From the time she was integrated into Kindergarten and throughout subsequent years, New Haven Public Schools has always supported Zoe and my efforts to empower her use of assistive technology. This district's commitment to ensuring that students with special needs be fully included with non-disabled peers has augmented her remarkable educational progress. Functional and educational demands have required creativity and flexibility by her supportive team; e.g. finding a method to participate in the Pledge of Allegiance, helping other students accept her into each classroom, and maximizing her independence in every educational task. Although she has used many assistive technologies, I will summarize her current use of assistive technology.

Zoe is independently mobile using an Invacare power chair with an Adaptive Switch Labs proportional chin control. She also controls the direction, speed, and tilt through two AbleNet Spec switches mounted into a headrest. She uses a custom robotic boom that powers the chin control to swing out of her way when she eats, uses her computer, or for social purposes. Another example of her independence is her use of an electronic feeding device during lunch at school.

In the classroom, she has a custom Prospect Designs desk, designed to ensure access to her computer, educational materials, and the power chair's visual display. For selected desktop handwritten tasks, she uses a Zygo head pointer. A variety of custom fabricated writing implement holders allow her to generate manuscript, draw, and paint. To accomplish these tasks, she also uses a Portable Versa-Table which provides a stable, angle-adjustable surface for manuscript, reading, and for art activities.

Primarily, Zoe performs written and reading assignments on her laptop computer, which she controls with an AbleNet-Tash microswitch chin-controlled joystick. This joystick is mounted into a customized Bogen camera mount which includes a joystick receiver. She is extremely skilled at mouse movements and selects icons/text by pushing down into the joystick. In addition to using school-based academic software (MathConnects, First In Math, 5th grade literacy program), she skillfully utilizes three software program simultaneously: Dragon Naturally Speaking Preferred, and WiVik onscreen keyboard with embedded WordQ word prediction software. An Andrea N-750 noise canceling microphone is used for speech recognition. The WiVik keyboard is configured in a frequency-of-use array to reduce the traveling distance for mouse movements, and the word prediction list is centered in the middle of keyboard. I am also proud to report that Zoe successfully took her CMTs using Dragon Naturally Speaking with WiVik (no word prediction, of course.)

I am continually amazed by this child and this team's dedication to empower Zoe's independence. For more information, contact: Nancy Shuster, EdS, MS, OTR, ATP, Coordinator, ACES AT Services, nshuster@aces.org

Contributed by Carolann Cormier, MS, ATP, CREC

It is always exciting when you can find a product that can be purchased off the shelf at a variety of stores that you can use for individuals with special needs, with little or no adaptations. The popular small keychain electronic digital photo viewers are one such product. They can be purchased from \$10 - \$20 and most can hold up to 60 pictures at Marshall's, Walgreen's, CVS, Radio Shack and Wal-Mart. The photo viewers come with software to load on to your computer, that allows you to copy digital photos from your computer onto the digital keychain. The user can then view the photos and scroll through them using arrow keys. For individuals who benefit from the use of visuals this tool can be used in a variety of ways.



There has been various research done on the use of visuals with individuals with disabilities, including individuals with autism. Wood et al. (1998) referred to visual supports as strategies for “augmenting the message” that is, assisting an individual to receive and make meaning of information more accurately and efficiently. Bryan & Gast, 2000, provided evidence that visual activity schedules increase on task and on schedule behavior.

Visual schedules can be created using a variety of materials, including actual objects, photographs, line drawings, Picture Communication Symbols or other visual materials. They can be done using high technology strategies, on the computer, using programs such as BoardMaker Plus or Power-Point. Both of these programs allow the inclusion of speech or verbal feedback; however, limitations of computer based schedules are that you need to go back to the computer to use the schedules. Low technology strategies have the advantage of being portable and generally are very easy to set up on the fly, by placing the visuals in the sequence they will be used, using Velcro and something to mount the visuals on. Mid technology strategies can also be used, including the digital key chains, talking photo albums and applications on smart phones. These offer the advantage of being portable, with some offering speech feedback. They also offer the “cool” factor and might be more attractive or desirable for some individuals and families. The disadvantage of the mid and high tech strategies is that they can take longer to set up. However, they can be used in conjunction with other visual strategies for activities that will remain constant over a period time. These could include steps in new activities or jobs and consistent schedules. The key chains, while they don't offer verbal input, are very portable and can be linked onto a belt loop. The user can view the picture in a sequence, go back to previous pictures, or forward to the next picture as many times as they want and may be enough support to allow individuals to become independent in their activities. As they don't provide verbal feedback, a benefit might be that it reduces the person's reliance on verbal prompts.

The digital key chains can also be used for their stated purpose, that being key chains to display the photographs of your loved ones or of things you love. For individuals who have limited verbal skills or who are working on social skills, this might be a nice way for them to share information about themselves. It could also be a way for the user to indicate they have changed the topic by going to a new picture on the keychain or for the communication partner to remind the individual to remain on a topic or when the topic has changed, by pointing to the picture that is displayed on the keychain. The more you think about how the keychain could be used the more possibilities you think about. Have fun and brainstorm ways to use this device with the people you work with (offering prizes for whoever comes up with the most ideas can spur creativity).

So the next time you see something cool in the stores, think about other ways you can use that material or device and share those imaginative ideas with others.

The NEAT Marketplace has several workshops worth checking out. There is a free *Apple Technology for Diverse Learners workshop on April 6th* and a *Boardmaker featuring the Boardmaker Activity Pad on April 8th*. In May NEAT has a workshop on Speaking Dynamically Pro, and another on using PowerPoint to enhance your lessons. CarolAnn Cormier is presenting at NEAT on Using Visual resources for Students with Autism on May 18th. Go to http://www.neatmarketplace.org/news_events/event_calendar.asp for more details and to register.

In Hartford on May 7th - T.H.E. P.A.C.T.[™] - Technology Helps Easy & Practical Adapted Curriculum Teaching - **which outlines how to design** "Learn About, Read About, Write About, and Talk About[™]" modules for special needs learners of any age. Go to <http://www.practicalatsolutions.com> for more info

For those who want to travel a little, the **Abilities Expo** in NYC is **May 21-23, 2010**
<http://www.abilitiesexpo.com/>

For those who want to learn from home, ATIA is offering a series of webinars. Check out www.atia.org for more details:

- *Wednesday, April 7, 2010:*
A Paradigm for Diagnosing AT Implementation Breakdowns
Gayl Bowser and Penny Reed
- *Monday, April 12, 2010*
101 Assistive Technology Solutions that You Can Make with PVC Pipe, Flag Pole Holders and Swifter Mops, Therese Willkomm
- *Wednesday, April 21, 2010:*
Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment, Ike Presley
- *Wednesday, May 5, 2010:*
Creating Assistive Technology Solutions in Minutes – Methods, Materials, and Resources
Therese Willkomm



ConnSENSE *Continued from Page 1*

So if you want to...

- Advance your assistive technology knowledge & training.
- Enhance your curriculum and support your students & clients.
- Learn about, compare and find AT products.
- See AT product reviews.
- Find AT support services.
- Hear from the experts & see devices being used,
- and find local, national & international resources.

The new ConnSENSE Bulletin is the place to be! To subscribe (its free!) to the ConnSENSE Bulletin, visit our website at www.connsensebulletin.com; or for more information contact Lee Learson, Editor, The ConnSENSE Bulletin, at ll_creativepathways26@msn.com.