

## IN THIS ISSUE....

### “Never Be Afraid to Ask for Help”

Most AT experts will tell you: AT abandonment is a major cause of school district reticence to purchase assistive technology equipment for students. And what's a prime cause of AT abandonment? The end-user is too often not a part of the equipment selection process. This month, we offer readers a user's perspective on assistive technology as seen through the eyes of a 26-year-old third grade teacher from Houston, Texas who, to the many Texans who have heard her motivational speeches, and whose exposure to people with disabilities may have been limited, is the personification of all individuals with disabilities who require access to AT as an equalizer. As Ms. Wheelchair Texas 2004, Angela Wrigglesworth traverses her huge state spreading this message: “Never be afraid to ask for help.” This issue examines the perspective of an AT user and the resources currently available to help users and technology achieve a lasting match.

Angela Wrigglesworth, Ms. Wheelchair Texas, Speaks

She was diagnosed with spinal atrophy at age 16 months. A neuromuscular disease, spinal atrophy is a progressive condition that results in muscles that weaken and eventually waste away due to the degeneration of motor neurons, nerve cells located in the spinal cord. A wheelchair user at an early age, Angela, with the support of her parents and community, remained fiercely determined to be as independent as possible, to live a

mainstream life with mainstream aspirations and accomplishments. After graduating from high school at the top of her class, she moved on to Texas A&M University where she earned an undergraduate degree in elementary education in 1999. In addition to winning the Ms. Wheelchair Texas title in February 2004 and finishing fourth runner-up in the ensuing Ms. Wheelchair USA pageant, she received the Houston Chronicle's 2004 Crystal Teacher Award and is a member of the Muscular Dystrophy Association's National Task Force on Public Awareness. A third grade reading and language arts teacher at Houston's Klenk Elementary School, she is planning to take an upcoming Graduate Record Examination (GRE) in order to return to college to earn a masters degree in education technology.

Supporting our interview with Ms. Wrigglesworth are resources to assist parents in learning about assistive technology from a user's perspective. We also feature members of our Knowledge Network. The members spotlighted this month focus on various aspects of AT use. We invite you to contact these members for further information.

Please share this newsletter with other organizations, families and professionals who may benefit from it. We invite you to contact us at <http://www.fctd.info>. We welcome feedback, new members and all who contribute to our growing knowledge base.



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## **“Things Turn Out for the Best for Those Who Make the Best of the Way Things Turn Out”**

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- John Wooden

### ***An Interview with Angela Wigglesworth Ms. Wheelchair Texas 2004***

The sentiments of famed former UCLA basketball coach John Wooden are the core of Angela Wigglesworth’s philosophy of life and how best to live that life to the hilt, at first, in her childhood and teenage years, without the aid of assistive technology and now, as a young adult and a teacher, with AT support.

About a year and a half ago, Ms. Wigglesworth came across an ad on the last page of *Quest*, the Muscular Dystrophy Association’s magazine describing the Ms. Wheelchair USA pageant. The ad stated that the pageant organizers sought a spokeswoman for individuals who would travel the U.S. to speak on behalf of the nation’s disabled population. “I was so excited about the program,” she recalls, “that I immediately called to learn more about it and was put in touch with the pageant’s Texas coordinator.”

The prospect of taking on a spokeswoman’s responsibilities excited her. “I’d already spent years as a motivational speaker in the Houston area and really looked forward to taking my message nationwide,” she remembers. At the state level, in Texas, the contestants were judged in three categories: accomplishments since the onset of disability; interviews with a panel of judges and, finally, a platform speech. The platform she chose was in support of outdoor recreational activities for people with disabilities.



Photo Courtesy of Michael Hart Photography

Her stage presence and extensive speaking experience helped propel her to the Ms. Wheelchair Texas title and to the fourth runner-up spot in

the national contest. Fulfilling the statewide responsibilities of her reign, she says, means a weekly whirlwind of events and speeches across Texas. She attends to those responsibilities with the same verve, the same high energy, that she has lived her life.

### **AT Is Key in Her Classroom**

As significant as her role is as a public personality and advocate, her most important role, she admits, is that of a teacher for elementary school students. Key to her performance in that role, she says, is assistive technology.



Photo Courtesy of Michael Hart Photography

In her classroom, she says, “I have a desktop computer attached to a TV instead of using an overhead projector or a chalkboard. I can type up what I want to present to my students and it goes to the TV screen.”

When she began with her current school district five years ago, “that was the new and upcoming technology because the projectors hooked up to the computer were not bright enough to enable students to see it with the lights still being on.” Her classroom lights would have to be turned off in order for the students to be able to see what she was doing on the computer, “but they wouldn’t be able to write anything on their own paper because the room would be dark.”

At the time, however, “that was the latest and greatest technology. I still use it all the time because, physically, I can’t even open a

marker. I can write on the overhead, and I do it, but it's very taxing for me. As far as writing on the chalkboard at all, that's impossible."

Her third graders also utilize a set of laptop computers. "We share those. Every Monday I bring in the laptops in our module for the kids to use. We use a [www.learning.com](http://www.learning.com) program."

That technology has come so far, so fast, she concedes, is beneficial to her as her disease progresses and her remaining strength wanes. "I have experienced some muscle weakness. My disease is progressive. Acknowledging that fact, I'll admit to you that technology could be even more useful in my classroom if I had more of it. I had a meeting with the superintendent of my school district and explained my needs."

### **Everything She Wanted**

According to the Texas Rehab Commission (TRC), she says, "I have to ask my employer first to provide what I need. If the school district is unable to provide them, then the TRC will try to take it from there." However, she says, "Lo and behold, my district went ahead and got me everything that I asked for!"

Angela will have a laptop rather than a desktop, "which will enable me to see over my computer easier." She adds, "I'm pretty short! I don't have one of those cool wheelchairs that raises up. I have to be able to see." The laptop, she adds, "will provide me with vision which is more appropriate than I'd have if I used a desktop. I'll have the laptop, the projector and a Starboard."

A Starboard, she explains, acts as a large, dry eraser board. "The projector goes up onto that screen and the kids can then take a marker and write on the board, interacting with the computer. It picks up what they're writing." The Starboard device has not yet been delivered to her classroom and thus she has not yet had the opportunity to acclimate herself to it, "but it sounds fabulous."

She has also ordered e-Instruction materials, which provide her students with small remote control clickers at their desks. "I can input into the computer, for example, a multiple-choice question. The kids can click on whatever they think the answer is and their answers will appear on my computer. I can assess their comprehension based on their answers and I can determine who needs more help."

She will have another device that she calls a "thinking pad" that she has not yet received. She describes it as "a little computer screen that will sit in my lap and I can write on it with a computer pen. Whatever I write will go to the projector and onto the Starboard, so I can be mobile and monitor my students while still utilizing my technology and not have to roll my wheelchair up to the front of the room." The system, she explains, "is completely mobile and therefore a tremendous asset to me." Going back and forth from the students' desks up to the front of the classroom "is very valuable time that I've had to learn how to manage." Thanks to her "thinking pad," that sort of time management "won't be a problem any longer because the computer will go with me wherever I go."

### **Undreamt Technology**

At home, she uses a laptop. "I've found that a laptop is much easier for me to manipulate because the mouse is right there in front. My range of motion is so limited that moving my arms from the keyboard to the mouse took way too much time. Having the mouse right in front of me helps – and, of course, it's a touchpad."

Angela reveals, "Believe it or not, that's all I have at home in terms of computer equipment. I don't need voice recognition equipment, for example. I'm not at that point yet. There may come a time where I'll need it."

She adds, "It may sound odd, but I kind of look forward to what will be available to me if and when that time comes, but that may not be for many years away, if it at all." She says, "Obviously, I hope it doesn't come to that. I do wonder, though, what will be there for me in terms of AT. Probably something that's unimaginable now. And that is so exciting for people with disabilities. Think of how much more we are going to be involved in the work force, and in every facet of life, thanks to assistive technology that will exist in 10 or 20 years but that hasn't even been dreamt of yet."

Angela recalls that her first encounter with AT came in third grade. "I remember that I had a little typewriter to help me in my writing assignments. It displayed what it was about to type on this little tiny screen, almost like a calculator screen. You could go back and correct it."

### **"Now I Reap the Benefits of Technology"**

Growing up, AT devices like her typewriter were scarce in her household, by design, her design. "I was one of those kids that fought my disease – or tried at all costs to overcome it with as little intervention as possible from any source, including technology. I grew up in a very mainstream environment. I didn't know many people who had disabilities. I saw everyone else being successful without any tools and I wanted to do that as well. For many years, not being comfortable with my disability, I fought getting any help. I wanted to do it by myself. I definitely strengthened my character."

Now, however, as an adult, "Because I'm no longer worrying about who's watching me, or how I'm perceived, I reap the benefits of technology." Except for the typewriter of her youth, "I didn't use any AT until I got to college. I took all my own notes. I didn't care how tired I was, I was going to do it."

Yet, as determined as she was to resist her disease by not requesting help, the

progression of her disease made AT an appealing alternative to a struggle that was becoming more arduous and time consuming annually as adulthood loomed. "As the years went on and my disease progressed, everything got more difficult." As a result, she recalls, "I skipped out on some things I probably should have studied and didn't because I was tired. I denied myself the benefits of technology even as the disease was progressing."

Although she now searches out AT that can improve her quality of life, she holds on to abilities she has developed and refined without the aid of AT, like note-taking without the aid of a tape recorder.

"When I attend teaching seminars and need to take notes I can keep up," she insists. "I'm not at the point quite yet where I require note-taking mechanisms. I don't tape record. In college, friends took notes for me and I used their notes."

When she returns to college to earn her masters, however, note-taking, she admits, may become an issue. "I've been out of college for five years and I've experienced some muscle weakness. I probably will have to record lectures."

### **Ed Tech in Her Future**

Looking ahead to her post-masters degree career, Angela envisions a second career anchored by AT and ed tech. "There's so much that I want to do," she says. "I can see myself working for a school district as an ed tech specialist, working with special education students and meeting their AT needs, or teaching seminars – because I thrive on public speaking – or perhaps working for an assistive technology company in sales or making presentations."

No longer resisting the benefits of AT, Angela has come full circle in adulthood. "I have such a passion for the [AT and ed tech] field because it directly benefits me. There just

could not be a more appropriate masters degree concentration for me."

An interdisciplinary studies major as a Texas A&M undergrad, with a focus on elementary education, Angela is qualified to teach reading in grades 1-8 and all subjects grade 1-8.

Her time at the teeming A&M campus in College Station, TX was her first real taste of away-from-home independence, and she savored it. "I left home my freshman year, moved in with a girl I went to high school with and have been independent ever since."

After college graduation she returned to the Houston suburb in which she was raised. "I teach in my old school district and live in an apartment about 15 minutes from my school by car."

Technically, she says, "I can drive if I wanted to, but Houston traffic is so wild and awful that I'd rather not." She owns her own accessible van but does not drive it to and from her school. "The woman I team teach with – she teaches math, science and social studies and I teach reading and language arts -- drives her Suburban to my apartment, leaves it there and switches to my van, which she drives to school with me as a passenger."

### **"I Live an Ideal Life"**

This arrangement, she says, is yet another example of the blessings life has bestowed upon her. "I live an ideal life, for which I am very grateful."

Her accessible vehicle is a converted Town & Country mini-van. "They dropped the floor about 10 inches," she says. "They also removed the passenger and middle seats to make room for my wheelchair. It takes only about 30 seconds to get myself situated in the van."

Despite her reluctance to drive, and her increasing physical difficulty in managing the driving process, Angela Wrigglesworth is a

study in perpetual motion and defiant indefatigability. "I am on the go all the time."

As Ms. Wheelchair Texas, "I am extremely busy. I am driven to nearly every town in Texas that I need to travel to. I don't fly much. There is no point to flying in Texas since you now have to get to the airport two hours early. We just get on the road and go."

Until her life settles down, which she predicts won't happen anytime soon, "I prefer to have a driver and devote my energy to other facets of my life, like spreading my message of hope and persistence and independence."

She employs no AT and very little technology to aid her in the many presentations she makes in her capacity as Ms. Wheelchair Texas. "I probably ought to be using more PowerPoint presentations with slides," she admits, "but I am the kind of speaker who wants the eyes of the audience on me, just me, not on a multimedia sound and light show that's going on behind me." She adds, "I want to feel like I'm having a conversation with each individual there. No distractions. I don't even use a podium because I don't use a script. My style of motivational speaking is a conversation between me and each individual in the audience."

She speaks to audiences several times weekly with no break for weekends. "Yesterday, for example, I spoke to a group of 800 student council members in a district convention here in Houston. I do many youth leadership conferences. Last Thursday I spoke at Texas A&M's diversity symposium. I also spoke to a class of teacher candidates the same day." Her speaking engagements can range beyond Texas and have included recent presentations in the Washington, DC area and Chicago.

### **Always a Go-Getter**

An observer might assume that the whirlwind that is Angela's life would take a physical toll on her. Such an observation, she declares, would be erroneous. "I've always been a go-

getter. I worked in a camp for people with disabilities. That experience really improved my stamina, because I was on call from 7 AM until midnight seven days a week."

While at camp, she recalls, her only AT was her powered wheelchair. "The chair has a tilt recline. If I'm by myself and there's no one nearby to help me transfer to lie down in bed, I just kick back in my chair."

Since building her stamina at camp, she says, "I have been able to go-go-go and not have to worry about it. I firmly believe that if you think you can do something and believe your body can handle it and you approach the situation with a positive, can-do attitude, then you will do it."

She adds, "I know my body's limitations. I know how it reacts. I also know that my attitude can make or break a situation for me. In other words, I could travel every day and I'd be just fine."

As she concludes her year-long reign as Ms. Wheelchair Texas, Angela Wrigglesworth gazes into a future that is both promising and challenging. "I'm prepared to make the most of the opportunities that have come my way," she says, "and to meet the physical challenges that may be there as well."

Fortunately, she says, "the acceleration of technology will present me with ways to live my life with far more independence than I had any reason to expect just a few years ago and, as Coach Wooden says, to make the best of the way things turn out."



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## RESOURCES

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### ARTICLES

#### ***The Man and the Machine: An Interview with Ray Kurzweil***

By Jay Leventhal

*AccessWorld*

American Foundation for the Blind

September 2004

<http://www.afb.org/afbpress/pub.asp?DocID=aw050505>

A pioneer in assistive technology, Ray Kurzweil was awarded the National Medal of Technology in 1999. Kurzweil developed the first Kurzweil reading machine from his interest in pattern recognition. In the early 1970s, Kurzweil tells *AccessWorld* Editor-in-Chief Jay Leventhal, optical character recognition (OCR) machines could recognize only a single style of type. Kurzweil was studying pattern recognition, which, he says, the human brain does well. For example, chess masters can recognize patterns on a chessboard at a glance, while chess computers have to analyze millions of irrelevant moves to find the best move. Similarly, to the human brain, what makes a capital A is its shape, whereas an OCR program guesses at each letter based on stored information and tries to make words from the images. Once a more sophisticated character recognition program was developed, Kurzweil says, "this solution needed a problem." The problem, he reveals to Leventhal, was suggested by a blind man who sat next to Kurzweil on an airplane trip and explained that he needed access to many types of printed materials. Two other problems needed to be solved: Both a flatbed scanner and a full text-to-speech program had to be developed. Kurzweil solved these problems by developing both products.

Blind scientists from the National Federation of the Blind (NFB) tested the resulting product and made suggestions for improvement from

a user's perspective. These suggestions included not placing Braille labels on the user controls, since users would quickly learn the keys, and adding a Nominator key that would announce the functions of other keys. The prototype of this first reading machine was completed in late 1975, and the new machine was announced on January 13, 1976. It was featured on all three national television networks' nightly newscasts, and it read Walter Cronkite's sign-off at the end of the CBS broadcast. The original Kurzweil Reading Machine had a minuscule 64,000 bytes of memory and cost \$30,000 to \$50,000. Units were placed in schools and libraries. When asked how to bring down the cost of assistive technology, Kurzweil advises: "Use mainstream products and functions whenever possible." He says that it is ironic that some specialized technology has ultimately gone mainstream. As examples, Kurzweil cites the telephone, "which Alexander Graham Bell originally conceived as an aid for people who were deaf," and, Talking Books, which found mainstream favor first as 33 1/3 RPM long-playing recordings of music and the spoken word, and, much later, as audio books. Kurzweil tells Leventhal that he is working with NFB to develop a handheld scanning device that will use a digital camera and a portable computer and will perform two-dimensional scanning. Previous handheld scanners have failed because users who were blind could not move them straight across a printed page. Kurzweil believes that digital photography will solve this problem. "This device will be able to recognize objects at odd angles and under unpredictable lighting," not just text that is lined up on a scanner bed. A user will simply snap a picture, and the machine will recognize and read the writing on a cereal box, for example.

"You encounter a lot of reading material throughout the day, [but] reading machines are not portable now," Kurzweil tells Leventhal. The AT innovator hopes to start testing the handheld scanner in 2005 and have a working model available in 2006.

When asked about future developments in assistive technology, Kurzweil states that a new mobility device will have some intelligence. It should be able to "look around the vicinity" and identify people and objects. By the end of this decade, something could be mounted on eyeglasses or pinned on your clothing. "It, combined with GPS [global positioning satellite] technology, would help direct a person."

### ***The Importance of Assistive Technology Outcomes***

By Marcia Scherer, Ph.D., MPH  
Institute for Matching Person with Technology  
January 2002

<http://e-bility.com/articles/at.shtml>

One-third of all AT devices are discontinued, abandoned or not used at all by consumers. According to Dr. Scherer, the most reliable method of understanding and reducing the rate of abandonment is to increase user involvement in equipment selection. Writes Scherer, "We know already that the single most important reason devices are not used by consumers is lack of consumer involvement in selection. People select their assistive technologies based, first, on how well they satisfy goals, needs and preferences, then according to their attractiveness and appeal. If the device meets the person's performance expectations and is easy and comfortable to use, then a good match of person and technology has been achieved. The perspective of the user will increasingly be the driving force in device selection, not which technology is most affordable or quickest to obtain."

AT users, she writes, differ as much personally as they do functionally. "Each potential user brings to the assistive technology evaluation and selection process a unique set of needs and expectations as well as attraction to assistive technology use and readiness for use. To achieve better assistive technology outcomes, these factors are ideally

assessed so that assistive technologies can be customized to the user, training and trial use of devices are arranged, and additional supports identified: 1.) Goals and dreams; 2.) Need for assistive technology; 3.) Readiness for assistive technology; 4.) Assistive technology and lifestyle fit; 5.) comfort with use."

***Bridging the Gap: Java Access Bridge Links Windows-based Assistive Technologies to the Java Platform***

By Mary Smaragdis  
Sun Microsystems, Inc.  
March 2000

[http://java.sun.com/features/2000/03/access\\_bridge.html](http://java.sun.com/features/2000/03/access_bridge.html)

Accessibility as a design goal for digital information applications is key to usability for consumers with disabilities, asserts the author. Too often, the author writes, "issues of accessibility are a postscript in the development cycle of new technology." That's not the case, she claims, with the Java Access Bridge.

Although work on Java platform-based assistive technologies is ongoing, most of the assistive technologies on the market today are not written to the Java platform. As a result, the Java platform has been a "black box" of sorts for many disabled users.

The Java Access Bridge, Ms. Smaragdis writes, "is bridging the gap by allowing existing assistive technology products -- such as Microsoft Windows-based screen readers -- to provide access to Java technology-based applets and applications that support the Java Accessibility API.

The Java Access Bridge, she writes, achieves this by providing a pair of Windows DLLs (Dynamic Link Libraries) and a Java language classfile. Together these make a bridge for the Java Accessibility API between the Java virtual machine and the Microsoft.

***The Changing Focus of AT***

By Marcia Scherer, Ph.D., MPH  
Rehab Management  
2001

<http://www.rehabinternationalpub.com/issues/fall2001/10.asp>

This article's focus is on the importance of measuring the outcomes of AT to eradicate discontinued use or no use at all. Dr. Scherer writes: "AT is one key to successful community participation. However, in spite of the assistance and promise of independence offered by many devices and the growth in AT options, the rate of AT nonuse, abandonment, and discontinuance remains high-on average, about one-third of all devices provided to consumers.<sup>1</sup> To understand and ultimately reduce the nonuse and discontinuance of AT, we need to measure the outcomes of the AT devices and services we provide." Successful integration of AT use into a person's lifestyle, she adds, "also depends heavily on the acceptance of AT by family members and the willingness to adjust customary routines to accommodate use. The ways in which rehabilitation professionals can help persons with disabilities and their families and caregivers examine the benefits of technology (even in a challenging arena of shorter lengths of inpatient stays and restrictive health care financing) also need further attention."

**BOOKS**

***Speaking Up and Spelling It Out: Personal Essays and Augmentative and Alternative Communications***

Edited by Melanie Fried-Oken, Ph.D., CCC-SLP, & Hank A. Bersani, Jr., Ph.D.

Going beyond the typical augmentative and alternative communication (AAC) issues explored in most textbooks, this collection gives readers the opportunity to hear AAC users talk about their lives. Twenty-eight individuals that use AAC, from teens to senior

citizens, provide first-person accounts of how AAC has impacted their lives. Their essays, poems, and interviews, provide readers with personalized insightful and often humorous perspectives on the issues that matter most to them, including education, employment, technology, and family. The contributors reveal what AAC are most effective and which are less effective. This collection provides AAC professionals, speech-language pathologists, therapists, educators, families, and friends of AAC users with insight into how to improve communication supports for AAC users. Cost: \$24.95

<http://www.pbrookes.com/store/books/friedo-ken-4471/>



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## KNOWLEDGE NETWORK MEMBERS

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### **Institute for Matching Person with Technology (MPT)**

The Institute matches users of technology with the most appropriate devices as well as conducting assessment, research, training and offering consultation services.

The MPT assessment process offers a more personal approach to evaluation. It contains a series of instruments – self-report checklists about consumer predisposition to outcomes of technology use – which take into account the following factors: the environments in which an individual uses technology; individual characteristics and preferences; the technology's features and functions.

According to the Institute, characteristics within these three components each contribute either a positive or a negative influence on technology use. If there are too many negative influences, the chance of the technology being successfully used is greatly

reduced. In fact, the technology itself can appear perfect for a given need, but if the user does not possess the appropriate personal characteristics or does not receive needed support, that perfect technology may go unused or be used inappropriately.

The MPT process features a series of instruments:

For persons considering any kind of technology, but believe there may be a general reluctance to use technology, the Survey of Technology Use (SOTU) helps identify technologies an individual feels comfortable or successful in using so that a new technology can be built around existing comfort or success

Technology-specific forms are:

1. The Assistive Technology Device Predisposition Assessment (ATD PA) to help people select assistive technologies
2. The Educational Technology Predisposition Assessment (ET PA) to help students use technology to reach certain educational goals
3. The Workplace Technology Predisposition Assessment (WT PA) for employers and vocational counselors who introduce new technologies into the workplace and who train persons in their use.
4. The Health Care Technology Predisposition Assessment (HCT PA) for health care providers who recommend or prescribe technologies for health maintenance and pain relief

Each instrument is actually a pair of instruments -- one designed for the provider of technologies (counselor, therapist, teacher, employer, trainer, etc.) and the other designed for the technology user (client, student, employee). Each instrument is quick, easy and self-explanatory. They were developed from the experiences of technology users and non-users through participatory action research to ensure providers and users work together to achieve the following goals:

- A process driven by user goals and preferences

- A degree of match between technology and user
- Successfully guiding providers into considering all relevant influences on the use of a technology while focusing on quality of life issues
- Timely identification of technology/user mismatches
- Selection of the most appropriate technology
- Identification of appropriate, optimal training strategies

For further information about MPT, contact

The Institute for Matching Person with Technology, Inc.

486 Lake Road

Webster, NY 14580

Phone/fax: (585) 671-3461

D-U-N-S Number 01-293-5933

Email: [IMPT97@aol.com](mailto:IMPT97@aol.com)

<http://members.aol.com/impt97/mpt.html>

### Academic Software, Inc. (ASI)



ASI designs and distributes custom software and hardware products for educational research and AT use. These products include the Adaptive Device Locator System (ADLS), a full spectrum national database, listing products from over 1,000 vendors for elderly and disabled persons and the family members and professionals who assist them. A recently completed project supported by the US Department of Education places ADLS-on-the-Web for global access.

ASI pioneered the development of software to automate the production of picture overlays for membrane keyboards and augmentative communications boards, producing the Unicorn Overlay Express for Unicorn Engineering (now Intellitools, Inc.) and the Apple version of the Picture Communication

Symbols for the Mayer-Johnson Co. The company is best known for its single switch access products for PC computer users facilitating efficient, inexpensive PC adaptation for home, classroom, or business use by persons with special needs.

For more information about ASI, contact:

Academic Software, Inc. (ASI)

3504 Tates Creek Road

Lexington, KY 40517-2601

Phone: (859) 552-1020

Fax: (859) 273-1943

<http://www.acsw.com/>



Crick Software

Crick Software is solely focused on producing innovative educational software, with a special emphasis on software tools for literacy. Crick promotes the inclusion of children of all abilities by creating flexible products that can be tailored by teachers to the needs of individuals. Most products have the option of switch access, for users with a disability who are unable to use a mouse or keyboard.

The company makes accessible reading and writing software for children, teens and young adults. Many of its products are appropriate for teaching English as a second language and for people with special needs, such as those with learning disabilities and physical limitations.

Founded in 1993 by John Crick, a veteran classroom teacher, the company utilizes a curriculum team of qualified teachers to produce curriculum-related content. The Company's best-known product is Clicker, a supportive writing and multimedia tool. Sets of learning resources to support Crick's products can be downloaded free from [www.learninggrids.com](http://www.learninggrids.com). In addition to materials created in-house, the site also offers teachers the opportunity to share materials they have created for their own classrooms. A nationwide network of Clicker Centers provides impartial advice on products,

curriculum integration and professional training development.  
For additional information on Clicker, contact:  
Clicker Software  
14687 N.E. 95th Street  
Redmond, WA 98052  
Phone: 1-(866) 332-7425 (425) 467-8260  
Fax: (425) 467-8245  
Email: [info@cricksoft.com](mailto:info@cricksoft.com)  
<http://www.cricksoft.com/us/>



Children's Neurobiological Solutions Foundation (CNS)

The foundation orchestrates cutting-edge, collaborative research with the goal of expediting the creation of effective treatments and therapies for children with neurodevelopmental abnormalities, birth injuries to the nervous system, and related neurological problems. In addition, CNS provides families and health care providers with user-friendly access to state-of-the-art information and education supporting their decision-making processes.

CNS seeks to transform the approach to pediatric neurological research by fostering partnerships among leading neuroscientists that deliver measurable improvements in the lives of brain injured children, and their families. The outcome of this research and education will provide proven treatments and integrated therapies with easily obtainable information, broadly accessible to those in need, assisting informed decision-making.

For more information on CNS, contact:

Children's Neurobiological Solutions Foundation  
1726 Franceschi Road  
Santa Barbara, CA 93103  
Phone: (866) 267-5580  
Email: [info@cnsfoundation.org](mailto:info@cnsfoundation.org)  
<http://www.cnsfoundation.org>

Heads Up: The Flexible Head Support System

## **HEADS UP™** *The Flexible Head Support System*

The Heads Up system addresses common problems associated with poor head control by opening the airway, simplifying feeding, relieving pressure on the back and neck and allowing eye contact, which promotes social interaction. The system's flexible elastic bands are extremely effective in maintaining head support and proper positioning. An adjustable tension feature is designed to allow a full range of motion, complete immobilization, or any degree of support in between. This adjustability provides maximum comfort and outstanding control.

The Heads Up system is compatible with most special needs equipment, and has various medical applications. The optional ergonomically designed high back support is necessary for use with any low back seat. Multiple cap styles and color options have a socially acceptable, even fashionable appearance. All caps are washable, hypoallergenic and available in both adult and child sizes. All caps adjust in size and accommodate user growth.

For more information on the Heads Up System, contact:

P.T., LLC.  
1379 Park Western Drive, #305  
San Pedro, CA 90732  
Phone: (310) 291-1034  
<http://www.head-sup.com>

Computer Access Center



Founded in 1986 by a group of parents, professionals and consumers who wanted access to AT information, the Center seeks to

increase awareness and implementation of AT by children and adults with disabilities. The facility offers consultations of AT solutions, AT information resources and referrals, computer-based youth recreation programs, speakers and hands-on, ongoing technical assistance to AT users and training to school districts and social services agencies.

For additional information on the Computer Access Center, contact:

Computer Access Center  
P.O. Box 5336  
Santa Monica, CA 90409-5336  
Phone: (310) 338-1597  
Fax: (310) 338-9318  
Email: [info@cac.org](mailto:info@cac.org)  
<http://www.cac.org/>

WheelchairNet



WheelchairNet is a virtual community for individuals, especially wheelchair end-users, who share an interest wheelchair technology and its improvement and successful application. During WheelchairNet's two years of existence, the community has added resources that include a bibliographic databases, a series of slide lectures, article reprints and an active discussion area. WheelchairNet's purpose is to serve the information needs of anyone interested in wheeled mobility. The site uses a community metaphor and WWW media to create a forum for the free exchange of information regarding wheelchair technology and its use.

For more information, contact:

WheelchairNet  
RERC on Wheeled Mobility  
5051 Forbes Tower

University of Pittsburgh  
Pittsburgh, PA 15260  
Phone: (412) 383-6793 (412) 383-6596  
Fax: (412) 383-6597  
Email: [wheelchairnet@shrs.pitt.edu](mailto:wheelchairnet@shrs.pitt.edu)  
<http://www.wheelchairnet.org/index2.html>



Adaptive Computer Empowerment Services (ACES)

ACES supplies refurbished and/or upgraded computers to residents with disabilities who otherwise could not obtain the equipment. It also performs repairs and upgrades, research in determining what kind of assistive technology would best suit the individual, basic training in computer skills, and reduced rates for internet service for people with disabilities.

ACES refurbishes donated used computers and provides them to low income persons with disabilities. Some systems are loaned for an indefinite period. Others are donated. Most often the systems provided are ready for Internet access. In some cases, ACES also provides delivery/installation, limited tutoring (for homebound) and technical support. The organization currently provides Pentium level Internet-ready computers with Windows 95 or Windows 98, Microsoft Internet Explorer, an e-mail program, a Microsoft-compatible free office suite and other free software. No printer is provided. Users receive a computer, monitor, keyboard and mouse. If there are no special needs, the waiting list for recipients is 1-2 months.

System recipients are required to be San Diego County residents with a medically verifiable disability and who are capable of using a computer. Individuals whose monthly income does not exceed \$1,000 may receive a free computer system. Those with higher incomes are charged a sliding scale fee. Income and disability must be verified in writing, and a \$50 nonrefundable processing fee paid, for a recipient to be on the waiting list.

Loaned equipment will be repaired by ACES at ACES' expense. Donated equipment may be repaired or upgraded by ACES staff at reduced rates. None of the equipment is guaranteed. ACES intent is to furnish "beginner" systems for as many persons as possible.

For further information on ACES, contact:  
Adaptive Computer Empowerment Services  
10054 Prospect Ave. Suite E  
Santee, CA92071  
Phone: (858) 244-1226  
Fax: (858) 571-0919  
<http://www.adaptive.org/>

### Tech Connections



Tech Connections is an information and dissemination project that assists voice recognition agency staff and others on AT applications. Tech Connections provides a toll-free information service, resources and information on applications of AT, a variety of training events and access to information resources and technical assistance to individuals with disabilities and their families. The project's comprehensive web resource provides information on AT applications, including publications, articles, books and newsletters, as well as links to other resources on products, vendors and catalogs. The Tech Connections website offers AT training materials, including case studies, audio conference archives, satellite broadcast archives and the AT Works Online Tutorials. Also featured is the Training Module Series: AT in the Workplace, three case study-based training modules on applications of AT in the workplace.

For more information on Tech Connections, contact:

Tech Connections  
490 10th St, NW  
Atlanta, GA30318  
Phone: Voice/TTY: (877) 835-7335  
Fax: (404) 385-0641

Email: [techconnections@crt.gatech.edu](mailto:techconnections@crt.gatech.edu)  
<http://www.techconnections.org>

### Alabama Statewide Technology Access and Response Project (STAR)

Alabama STAR provides AT-focused access and information/referral programs that are open to Alabama residents of all ages and with all disabilities. These programs include: Ability Loan Program, which provides an alternative source of financing to help individuals with disabilities and their families to purchase adaptive equipment and services through a low-interest, extended-term loan program. The program was introduced by SouthTrust Bank and the Southern Disabilities Foundation in January 1997 with the capability of extending more than \$1 million in loans. The loan program covers a wide range of AT devices.

Equipment Loan Program, through which STAR provides short-term loans of assistive technology to persons with disabilities who wish to try out different types of devices. This program also provides equipment loans to rehabilitation professionals so they can better assess and evaluate persons with disabilities using technology.

STAR Information and Referral Service, which provides information about AT services, resources, suppliers, and funding. STAR responds to AT requests from people with disabilities, family members of people with disabilities, professionals, educators, employers, and other interested persons. The organization uses an extensive resource library of AT products, services, and resources when responding to AT-related inquiries.

ABLEDATA, a computerized database containing information about more than 20,500 AT products and approximately 2,600 manufacturers, is also used to provide information.

Enhancing Technology Access and Attitudes (ETA), which provides an introduction to disabilities and AT as well as training on how

to be sensitive to the needs of persons with disabilities. This training can be targeted to schools or businesses.

For more information about Alabama Star, contact:

Alabama Statewide Technology Access and Response Project  
2129 East South Boulevard  
Montgomery, AL 36116-2455  
Phone: (334) 613-3480; 1-800-441-7607; 1-800-499-1816(TTY)  
Fax: (334) 613-3485  
<http://www.rehab.state.al.us/star>

Assistive Technology Clinic at Alfred I. duPont Hospital for Children



The clinic offers complete augmentative communication, computer access, and computer-assisted writing evaluations as well as individual therapy, consultation and training with community-based therapists and educators, and assistance with set-up and customization of communication aids.

The clinic's emphasis includes implementation strategies in school, home, and communication environments. These services are designed to help children use appropriate communication aids to supplement their natural speech and writing and appropriate computer software and hardware to facilitate language learning, language organization, and written expression. Their multi-disciplinary program includes speech-language pathology, occupational therapy and rehabilitation engineering services.

For additional information about the clinic, contact:

Assistive Technology Clinic at Alfred I. duPont Hospital for Children  
P.O. Box 269  
Wilmington, DE19899  
Phone: (302) 651-5621  
Fax: (302) 651-6408  
<http://www.nemours.org/internet?url=no/aidhc/svcs/div2050.html>

Assistive Technology Consulting (ATC)



This 10-year-old consultancy provides technology services to New England schools, libraries, universities and businesses. It offers AT support, training and products for individuals who are blind, vision-impaired or who have learning disabilities. ATC services include equipment demonstrations, technology assessments for education, low vision evaluations, training, evaluations for a wide range of disabilities, software testing and web accessibility.

For additional information about ATC, contact:

Assistive Technology Consulting  
PO Box 778  
Amesbury, MA01913  
Phone: (978) 462-3817  
Fax: (978) 462-3928  
<http://www.adaptivetech.net/>

Assistive Technology, Inc. (ATI)



**Assistive Technology, Inc.**

ATI develops, promotes, sells and services state-of-the-art products for individuals with disabilities. The company also conducts orientation tours, holds AT workshops,

provides device training, and offers device rental/program previews, funding support and standard warranty.

ATI was founded in the 1980s as the Institute on Applied Technology (IAT), a division of Boston Children's Hospital, the leading pediatric institution in the United States and the prime pediatric affiliate for the Harvard Medical School. IAT developed several leading edge products over a seven-year span, including MultiVoice™, MultiPhone™, and WriteAway. AT IAT, research and engineering collaborated closely with clinicians, teachers, and patients with disabilities at Children's to produce pacesetting AT products.

In 1995, the increased level of activity and industry interest in technology solutions for people with disabilities provided the opportunity to spin off the IAT into a for-profit venture.

ATI has released 11 "breakthrough" products: MiniMerc, Mercury, LinkPLUS™, Gemini, LINK™, Freestyle™, Functionally Speaking, Stages, Stages Report Wizard, EvaluWare™ and Companion™. ATI also distributes other hardware and software products, including 7 Level Communication Builder, LightWRITER™ and several third party curriculum software solutions.

Although it is a for-profit company, ATI continues its longstanding working relationships with educators and clinicians.

For further information on ATI, contact:  
Assistive Technology, Inc.

333 Elm Street

Dedham, MA02026

Phone: (800) 793-9227 (781) 461-8200

Fax: (781) 461-8213

<http://www.assistivetech.com>

provides a place for children and adults with disabilities to try out technology in a relaxed, non-commercial learning center.

TechConnections offers AT solutions that employ adapted equipment, alternative keyboards, switches, specialized input devices, software communication devices.

For more information, contact:

TechConnection Assistive Technology  
Solutions

35 Haddon Avenue

Shrewsbury, NJ07702

Phone: (732) 747-5310

Fax: (732) 747-1896

Email: [tecconn@aol.com](mailto:tecconn@aol.com)

<http://www.techconnection.org>

The Family Center on Technology and Disability  
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a month-long online discussion of

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with its developer  
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