News and Notes
Family Center on Technology and Disability

When Worlds Merge: AT and Instructional Technology in the General Ed Classroom

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Classroom technology has traditionally existed primarily in an either/or world: it's either in a special education classroom as assistive technology or in a general education classroom as instructional technology. Today, however, a merger is underway as some general education classroom teachers import AT into general ed classrooms that are inclusive, and combine it with instructional technology in a universal design environment that benefits all students.

Implementing such a convergence, however, requires a pioneering spirit on the part of teachers and administrators plus a functional knowledge of technology by those general ed classroom teachers for whom the potential benefits of convergence in a universal design setting outweigh the probable difficulties inherent in affecting a dramatic change in outlook, training and teaching styles.

Lon Thornburg Speaks

For Lon Thornburg, a general education classroom teacher with little special education training or background, pioneering preceded passion. He spent several recent years as a Johnny Appleseed of the Pacific Northwest, spreading the word about AT, instructional technology and universal design throughout the Umatilla Morrow Educational Services District (ESD), a regional entity encompassing 12 districts in seven Oregon counties with Pendle-

ton, Oregon as its epicenter. Then, two years ago, after a near catastrophic medical event with lasting implications, he infused passion into his quest for a 21st century classroom in which all technology is available to everyone.

As he tells it, "I was driving when I suddenly became very, very ill. I pulled my car over." At first he thought he had food poisoning, but his ailment was far more serious than food poisoning. "My right vetiveryl artery in the back of my neck had a tear in the lining that halted the blood flow to my brain for several seconds." He ended up in the emergency room and spent the ensuing five days in the hospital. His life saved, his trials did not end then. The medical episode resulted in a brain injury that left a lesion and a signature. Says Lon, "I have to think hard now about what I say and write." After departing the hospital he told his wife and friends, "I've got a whole closet full of assistive and instructional technology and I know how to use it. If I have to spend the rest of my life in a bed I can at least use a computer."

As such experiences often do, this one left Mr. Thornburg with a permanent disability, a new perspective and an intense passion to do what he could to make AT and instructional technology accessible to all the kids in his sprawling ESD region. Before his medical emergency, "I had always wanted to be a teacher. I saw my assignment as AT services coordinator as a logical extension of that ambition." When he landed in the hospital Mr. Thornburg had served in his current AT assignment about a year and a half. "My new disability compelled me to create my blog http://nolimitstolearning.blogspot.com/ and my blog/talk radio show, plus become far more deeply committed to other activities that complemented my job. It's helped me in my professional development."

Since his stroke and hospitalization and the initiation of his new projects "l have risen above what I now regard as a pretty conventional commitment to my profession. That's not to say that I wasn't proud of what I'd accomplished pre-stroke. I was. But I have had to take myself and my work to a higher level since I've had this disability."
He has also had to acclimate himself to the impact of his disability on himself and others.

He experiences reversals in his spelling when he handwrites, not only when he uses a keyboard. "This disability has given me more empathy with the students I work with. My disability is an invisible disability. I stammer and have to spend a few seconds coordinating my thoughts before I speak or respond. I'm sure people think, What's his problem?"

Sometimes, he says, "when I'm speaking and can sense that my listeners are beginning to wonder what it is I'm talking about, I'll say, 'I just want to stop a moment and tell you that I have a disability. I had a stroke. I had a lesion on my brain. I have trouble collecting my thoughts. It takes me a little longer to clue in. So please bear with me.'

It is as if he has a learning disability, Mr. Thornburg explains. For example, "I was in my administrative program and I had a cohort of classmates with whom I went through my licensure for school leadership. We were in that program for a year and a half. We took all our classes together. In the summer when we had sessions at the university we'd go out in the afternoon to a sports bar and have a beer and a burger and then return to class. We were buddies. They didn't understand that what I had was an invisible disability. To them I was the guy I'd always been whom they'd known before the incident."

One day the members of the cohort were involved in a group activity in the university board room "They brought out several articles. Underneath each article several steps were listed. There were 3-4 pages and all appeared identical, except there were roman numerals on top and the same heading but different titles. The pages were passed out to us and we each had a stack. Directions were given by the leader. But I was still looking at the papers. I couldn't sort them out. They all looked the same!

When we were told to break out into groups I was totally lost. Somebody said, 'Come on, Lon. Get with it!' Everybody else in the room was completely normal. Each understood the materials they were handed. They were on cue and ready. I was a half step behind."

Mr. Thornburg's first thought was, "'Give me a break, you guys.' The truth was, though, that they weren't even thinking about what had just happened or my incident or any disability I might have. It wasn't that big a deal but it made me realize that I had to self-accommodate from that point on in ways that others may not."

Self-accommodation is an underlying theme in much of Mr. Thornburg's work with kids with disabilities and their teachers and therapists. "In May I interviewed Ofer Chermesh, an Israeli technology CEO who invented the Ghotit dyslexic spellchecker, http://nolimitstolearning.blogspot.com/2008/05/dyslexic-spell-checker-ghotit-ceo-live.html. He has accommodated himself his entire life. He told me, 'Just because I'm dyslexic doesn't mean the workplace is going to forgive me. The workplace won't say to me, 'You're dyslexic so it's OK if you don't meet the deadline and turn in your work late.' It means that everyone who has a disability has to work that much smarter and that much harder just to be even with everyone else. If you want to exceed that level then you really have to hustle.'"

A 1981 graduate of George Fox University, Mr. Thornburg worked at Oregon Health Science University in an early childhood self-contained program doing research in milieu therapy for emotionally disturbed children. He taught as an elementary teacher in grades 4-8 in Nevada and Oregon.

He then worked as faculty dean and instructor for an international music school in Dallas and overseas in schools in South Africa, Singapore, Malaysia, Hungary, the Netherlands, United Kingdom and Australia. He earned an ME in technology and education from Leslie University, Cambridge, Massachusetts. He completed his school administrative program in 2007 through Lewis & Clark College in Portland, Oregon.

In his current post Mr. Thornburg, in addition to coordinating AT services in a multi-county region also participates in the advisory council for the Oregon Technology Access Program (OTAP) and shares skills in state-wide AT training workshops. As a member of the Oregon Traumatic Brain Injury (TBI) Team, he brings his AT expertise to the TBI team coordinating services for students in Eastern Oregon.

In addition to maintaining his No Limits to Learning blog, he is the editor of an online AT blog writer's forum, The Assistive Technology Blog Carnival, and maintains an online live stream talk show on Blog Talk Radio, No Limits 2 Learning Live. His writing and interviews have been featured on websites such as Blink Twice, Dynavox, The DAISY Consortium, Notescribe, Ezine Articles and several national special education news feeds.

Supporting our interview with Mr. Thornburg are related resources and organizational spotlights. The organizations spotlighted this month focus on technological convergence and universal design. We invite you to contact them for further information. Please share this newsletter with other organizations, families and professionals who may benefit from it. We invite you to visit us at http://www.fctd.info. We welcome feedback, new members and all who contribute to our growing knowledge base.

Both Sides Now: A Former General Ed Classroom Teacher as Assistive and Instructional Technology Advocate

An Interview with Lon Thornburg, AT Services Coordinator, Umatilla Morrow Educational Services District, Pendleton, Oregon

Lon Thornburg

A general education classroom teacher by training, and with no special education background, Lon Thornburg looks at classroom technology from both sides now.

Declares Mr. Thornburg: "The most significant trend now underway is the blending of special ed and general ed for support. This is related to another major trend: the emergence and increasing utilization of universal design. These trends represent a quantum leap in the ways we can provide technology services."

An active blogger who moderates a blog/talk radio program, Mr. Thornburg emphasizes that the blending of special and general education in order to obtain technological support, and the adoption of universal design, are common themes in the blogs and interviews in which he participates.

Far from regarding his earlier background as a general ed classroom teacher as a liability, he believes it provides him with a useful viewpoint in his effort to deliver assistive and instructional technology to environments where they can do the most good for the greatest number of students.

"Ironically, my general ed background gives me a unique perspective. Special ed classroom teachers are swamped with paperwork, testing and IEPs and many other time consuming tasks. When it comes to accommodating the actual curriculum and performing the necessary modifications to it according to the needs of individual children in light of AYP (Adequate Yearly Progress) and NCLB (No Child Left Behind), they can find themselves at a disadvantage. Yet general ed classroom teachers are also at a disadvantage because some are largely unaware of the elements associated with disabilities and impairments and what's needed – and available -- as classroom support."

As a consequence he adds, "I've been working overtime asking questions and interviewing and doing my blog talk/radio show where I interview pertinent individuals from the field. I soak up everything associated with the special ed perspective to complement my general ed classroom background and viewpoint."

His journey to classroom technology convergence in a universal design environment began in 1999.

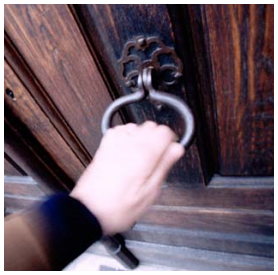
Remembers Mr. Thornburg: "I had been a general education classroom teacher for a long time. When I began work on my masters degree in technology and education eight years ago the Internet was beginning to reach universal use status. The school where I was teaching then had just hard wired a pipeline [for] Internet access."

When he earned his masters degree in 2001 he found a position in the Umatilla Morrow ESD as a personal development trainer responsible for integrating technology into education. Accepting that position necessitated a move from the classroom to a regional post. Recalls Mr. Thornburg: "I'd accompany a classroom teacher and students to a computer lab and help kids with basic tasks, like how to sit at the computer, how to search safely online, how to open a PowerPoint, how to correctly copy resources and give credit, how to copy photos and transfer the photos in, how to access a student's text and summarize."

A regional AT committee oversaw the application and distribution of assistive technology. "We had

an equipment center with a closet full of equipment and software. The therapists would have to check the AT out with our receptionist in order to perform their assessments with it. The AT would be checked out to a school and the teachers would use it. After use, the devices were collected and returned to the closet." The committee met four times annually to review its needs and purchasing priorities.

Opportunity Knocks



Familiar with AT through his masters program, Mr. Thornburg began asking questions of committee members. "I saw a lot of AT devices and software that could be used to support kids in the classroom. I was constantly hearing comments from classroom teachers, like 'I've got a lot of kids in my class who could benefit from supports like Clicker 5 or Intellitools Classroom Suite.' The teachers saw interactive word walls that enabled them to work effectively with their students in literacy."

Today, he notes, "we have Promethean Board technology, which enables teachers to customize and integrate text, images, quizzes and tests, web, video and audio content in ways that capture students' attention and hold it. We have access to ACTIVision software where students can use a wand to direct and drag images across the board, bringing a movement-oriented kinesthetic component that did not previously exist. That's now, but back then we had none of this."

What he had was an equipment center stuffed with equipment and software, much of it old. "Members of the committee that oversaw the center were occupied with other responsibilities. The therapists did not believe they were receiving much support. The school districts made known their desire to take charge of the distribution and use of the equipment." Mr. Thornburg asked the special education director for permission to check out some of the AT equipment to experiment with children and their teachers in a general classroom environment.

Technological Convergence: the First Signs

"The special ed staff was curious about why I wanted to take the equipment outside of special ed." At that time, he recalls, AT was regarded as the province of special education. "Regular" technology was for general education classroom use. "For the past few years, assistive and instructional technologies have undergone a convergence process. That ongoing process, he notes, "is eroding the premise that this equipment is only for special needs kids in a special ed classroom."

Even before this convergence took shape in his region, "I wanted to use the technology for professional development purposes. Unfortunately, others were unaware of my motivation. It was not that they mistrusted me or my motives; they just did not yet understand how and why I wanted to use the technology."

Administrators then asked if he would be interested in moving from the six-member instructional resources team to AT. He agreed to make the switch. "My first year was spent in general housekeeping, inventorying and examining the usefulness of the equipment we had on hand and disposing of that which was too old for our use. I went through the libraries and updated the software titles that had not yet been upgraded. I updated our equipment center by selecting new equipment that would be appropriate for our needs."

Now in his fourth year "I am excited to see that professionals in the region understand that there is someone they can go to with their AT needs. After a few years of developing awareness of my capabilities, teachers, therapists and others know that I am here and I can help them. As a result I am constantly busy."

"My First Reaction: How Boring!"

When Mr. Thornburg began his masters degree program he looked through the course of study. A

course caught his eye. The course was entitled AT: Using Technology to Accommodate and Modify Curriculum and Work with Special Needs and Disabilities. "I am ashamed to admit it but my first reaction was, 'How boring!' I thought that that class would be my least favorite. The fact was, I didn't understand the technology. I was a classroom teacher. What does that tell you about general ed teachers who are in the classroom every day and are unaware of the technology's benefits or who know nothing at all about AT?"

The course was taught by AT authority Brian Friedlander. "I was very impressed by him. He brought us a lot of equipment and software to work with. He and I went out to lunch one afternoon. By that time I had already moved up to Oregon to work in professional development. I had been hired here with the assurance that I'd finish my masters. I told Dr. Friedlander what I was doing with professional development and AT in my new job. He warned me, 'Don't let them know that you are interested in AT because if they discover that AT is your interest you'll be placed in charge of it.' He was a sage and a prophet."

"After I started my blog last year http://nolimitstolearning.blogspot.com/ I contacted Dr. Friedlander and informed him via his blog about my new job. That led to a reigniting of our professional friendship. I thanked him for mentoring me and added, 'You've introduced me to what has become my passion in life, one that I would never have discovered had it not been for you, that class and that masters program.' I feel as if I've come from the 'other side' and can therefore relate to teachers, especially regular ed classroom teachers because I do not have a special ed background."

When he collaborates with teachers, some concede that they know little about AT. "They try to apologize, which of course is absolutely unnecessary. Recently, I was working with an assistant scanning textbooks and turning the content into MP3 files. She was very nervous while working on this project. She said, 'I don't know a whole lot about this.' I told her, 'That's OK; we'll go through this process step by step and then you can practice, and then come back and do it again.'"

Fortunately, he notes, new teachers are emerging from their universities better equipped with hands-on knowledge about assistive and instructional technology than a few years ago. Many, he adds, appear to be more instinctive about their technological savvy than their immediate predecessors. "I must admit that I enjoy encountering these new teachers. Yet they, too, will have their challenges as new teachers in a more technology-driven era just as we all do."

In his opinion, AT is moving into the mainstream "and we are going to have to let these new teachers know what the strategies and tools are." A tech cadre in his region meets three times annually. This cadre consists of 40-50 classroom teachers. "We have a toolkit program which enables new teachers to acquire skills they can use. We have not yet included AT and tools for accommodating curriculums for the kids who use AT in that tool kit program. That is something that we need to do. Those AT-related tools are necessities for our new teachers."

He offers an example. "My wife has a cousin who is a new teacher in Montana. My wife's grandfather died recently and her cousin attended the funeral. After the service he decided to spend the night with us. At dinner he said, 'I'd like to ask you about a student I have." He proceeded to explain some difficulties that the student was experiencing in the classroom. I replied, 'I think she has a print disability.' I gave him some recommendations. His face broke out into a big grin and he said, 'You hit it right on the head. But what I didn't tell you is that she has been evaluated and has this disability. What can I use to help her?'" The student, Mr. Thornburg added, had not qualified for an IEP or for special education services.

"We looked at a tool available through Premier Literacy that would allow him to use the software

to convert the student's text into audio files, take notes and summarize the text, among other tasks. My wife's cousin left our house so excited. Here is a new teacher, with a heart for his students who wants to find the right tools to match up with his students' disabilities. But he doesn't even know where to begin."

Time to Change the Model?

Mr. Thornburg hopes new teachers will one day receive a checklist of student characteristics. Such a checklist may indicate the presence of disabilities matched with options that include technology, low-tech to high-tech. "I have a set of those checklists in my office that I distribute when I attend team meetings. I have one for categories in education, including writing, reading and study skills, plus other categories. I think these lists would be very beneficial for new teachers."

Many special education teachers, he remarks, have a sense of AT's utility and potential. "However, special ed tools are steadily being merged with general classroom needs. With RTI (Response to Intervention) boundaries between general and special ed are increasingly porous. New special ed teachers need to think in terms of a merged education environment. I'm aware that special ed teachers must manage the special ed component but we see them serving as more of a support system for the school in general versus being self-contained as in the past. We have to leave that model behind, I think."

However, he emphasizes, changing the current model will not be an overnight task "given how slowly education has traditionally picked up on trends."

For example, he says, "I've been working with our IT department to try to get the universal design and accessibility tools on our images for all of our computers in all of our districts. It is very difficult to persuade some education professionals to make that jump. For them it can be a quantum leap to adopt the notion that we can provide this for all students. They will ask me, 'Why can't you just put this information on a computer for the kids who need it? ' My response is, 'Why can't we put the information on all the computers, because what we are showing is cost-free anyway?'

"I told the teachers, 'We can talk and talk about this but the bottom line is that we have to roll up our sleeves and do it. That's what I'm doing: I'm showing you. If there's funding to bring me back I'll be happy to visit your classroom to show you and then I'll help you show your students. We'll conquer a little bit at a time.'"

He emphasizes that these tools can be used by all students, not only those with disabilities. "Talented and gifted students can use this technology too. There are so many tools that they can use that help them do what they do even better. Let's tear down some of these boundaries."

504 Plan Eligibility

Under Section 504 of the Rehabilitation Act of 1973, children with disabilities not eligible for special education may nevertheless be entitled to AT. According to Mr. Thornburg, families and educators approach Section 504 eligibility from different perspectives.

"Families approach this from the perspective of advocates wanting the best for their children." 504s, he reminds, are not federally funded. "Therefore, schools and educators guard 504 because we only have so many resources in personnel and time and finances to do what needs to be done for kids."

In his research of 504s Mr. Thornburg says he found that school principals and administrators may sometimes prefer that a child enter a special ed program rather than opt for the child's participation in a 504 plan "perhaps because participation in special ed is supported by federal funding." Such an approach, Mr. Thornburg asserts, can result in a

child's miscategorization.

Says Mr. Thornburg, who emphasizes that he has never had exposure to such an approach except during his online research, "In my opinion, parents should be encouraged to reject this approach." Instead, he adds, parents should say, 'I don't believe my child needs to be in a special ed classroom or under full special ed services but we want a 504, we want our child to have the modifications she needs to get along in the classroom.'"

He approves of participation in 504 plans, he notes, because students with learning issues require access to the curriculum. "The question is, How are we going to fund 504 participation with boundaries blurring the way they are?" 504s, he notes, are not often utilized. "Usually they are used for kids with classroom issues that require additional support." That support, he explains, can be a new seating arrangement or obtaining a document in larger print or a time accommodation on a test or perhaps a less heavy homework load than others in the class. "But when I work with teachers who say, 'I have a handful of kids in my class who can't look through the test and read it smoothly and cannot understand it,' I would rather give them a universal design model than start placing kids in 504s."

The Power of Self-Accommodation

Mr. Thornburg maintains an online friendship with special education scholar Ira Socol, a fellow blogger http://speedchange.blogspot.com/ who espouses the tool belt concept. "Ira's opinion, which I agree with is, 'Let's give all the kids all the tools and let them choose what they need.'"

Mr. Thornburg terms the Socol stance self-accommodation, a theme that underlies much of his work. "Let children be self-accommodating," Mr. Thornburg declares. "That way if a child needs to sit up front, it's OK to do that. If a child needs to get a jump drive and plug it into a laptop so she can hear that text that day perhaps the teacher has one available. Another child who's categorized as talented and gifted might want to use a jump drive because he wants more meat from the material he's reading. Maybe another student can't quite understand the content and she uses the jump drive to complete her understanding." Like so many devices, he adds, "a jump drive can help any student."

The point is, he concludes, "if everyone can use and benefit from the device a 504 would not be needed."

504 Plans versus IEPs: What's the Difference?

Although IEPs and 504s are often referred to as similar plans, there are major differences between them that families and educators need to be aware of, Mr. Thornburg says. For example, IEPs are federally funded; 504s are not. Where a 504 might request student medical records or psychological reports, it doesn't require either. Qualifying for special education, he adds, requires testing. In addition, a specific psychological or medical condition must exist. "With a 504 a child might have a condition or impairment but may not qualify for the 504 unless there is a specific condition that is evident to the team."

While researching the difference between IEP and 504 qualification requirements Mr. Thornburg encountered several illustrations. "Let's say a student has facial burns that cause disfigurement and impair the student, but the most significant impairment is how other students react socially to the burned student. There might be a discriminatory situation wherein some special accommodations might be called for." The nature of those accommodations, he explains, would depend on the student's school environment. "Students with cancer who are undergoing chemo return to school. Others with diabetes and heart disease are in school. What happens to a student with AIDS? Kids with these conditions can be discriminated against by other kids. Sometimes AT is not what is needed most in these situations."

Regarding IEPs and AT, "my region uses a team approach to determine appropriate technology devices and services. "I'll do an evaluation and we'll conduct trials. I'll determine where I think we should start and present that to the team. A team, by mandate, has to consider AT in a planning strategy meeting under IDEA. I have a checklist that I give those teachers and teams before I'm actually present in a meeting."

Because Mr. Thornburg is unable to attend all team meetings in his seven-county area, he distributes a checklist for use by other team members in his absence. The checklist he distributes to team members is prepared by the Wisconsin Assistive Technology Initiative (WATI) http://www.wati.org/. A link on the WATI website provides access to a packet of assessment materials, including the checklist. The checklist was developed by AT experts Penny Reed and Gail Bowser. "Gail and Penny have been mentors to me and I've valued their input into what I've done." He is active in the Oregon Assistive Technology Access Program that Ms. Reed and Ms. Bowser pioneered.

Mr. Thornburg's region employs the SETT framework http://sweb.uky.edu/~jszaba0/JoyZabala.html – student, environment, task and tools – as its standard evaluation framework. "We follow the rigid SETT protocols for IEP AT evaluations, whereas a 504 would not necessarily mandate all those steps."

Action Steps to Advocacy: Be Positive

Strong advocacy, Mr. Thornburg declares, "comes from parents, teachers, therapists and administrators who have a positive approach, who are working to find solutions and for whom cost is not an obstacle."

To help promote stronger family/parent advocacy on behalf of a child with disabilities who needs AT, Mr. Thornburg has prepared a document

entitled Action Steps to Advocacy Report. The information it contains has been compiled over time. Although it has not yet been published, the report will be available on Mr. Thornburg's blog soon for download.

"During my time in general ed and since I've been working with AT I've been observing parents, staff, teams and kids. I've investigated why certain schools are able to obtain so much AT equipment while others are able to acquire very little. I've looked at why a particular special ed teacher can maintain a very active program in a partnership with us while another teacher is less active and whose classroom is unvisited by us."

Not surprisingly, his investigation reconfirmed the truth of the ancient adage, "A squeaky wheel gets the grease." In other words, he explains, "I find that I have so many different projects and people I work with, including kids and staff, that those who call me, email me or invite me to their classrooms are aggressively pursuing my advocate services and therefore receive those services from me. Those who sit and wait for me to visit them, on the other hand, will eventually see me, but their advocacy is much more passive. The result is that the parents of their students may be feeling left out."

He is an experienced observer of advocacy by school principals as well as parents. "I've known principals who were amazing advocates. They would get me in their office and say, 'We have to do something for Johnny. This student has never had what he needs and I want to make sure that he gets it.' That makes my day. What it costs doesn't matter to these principals. Their approach is to be an advocate for Johnny's parents, who might be in denial, don't want to face what their child needs or feel they lack adequate advocacy skills. For whatever reason parents are not always advocates, nor is the school the villain."

Mr. Thornburg's experience has shown him that the best approach to advocacy, the one that offers the greatest potential for success, is a positive approach.

"Adopting a positive, team-oriented approach, not a pugnacious, adversarial stance, is vitally important. Body language and facial expression should reflect that positive posture. Sitting in a meeting with arms folded and eyes rolling, expecting the worst, is not the right approach. I believe strongly in the notion that you get the result you expect. If you expect the worst, you will get it."

Quantum physics, he states, says that there is an element of the thought process that creates reality. "Often when folks go into a meeting situation with negative expectations they can sabotage the process even before it starts, because they are convinced that no one is going to believe them, no one is going to support them and they will have to fight for every concession. When they walk in the door at the very beginning with that approach they are setting the stage for failure. Other parents, on the other hand, will enter a meeting with a positive attitude that says they are thankful for the efforts of the school, teachers and therapists. When parents assume that posture there is an excellent chance that will emerge with something approaching the result they want."

"I'm working overtime to help ensure that the students who are my responsibility get what they need. It's the principals, teachers, therapists and school environments where I am welcome and appreciated that help ensure that children get the AT they need."

In his region, he continues, "we have principals who are actively pursuing advocacy for their special needs kids, and we have other principals who are so fully occupied with other responsibilities that they leave advocacy up to someone else. At some schools the principal sits in on all our meetings. At other schools we never see the principal. Every administrator has a list of pet projects. We are fortunate when special needs are on that list."

An Ongoing Partnership

In preparing for an upcoming FCTD advocacy discussion, Mr. Thornburg wrote, "Good advocacy encompasses an ongoing partnership that supports the ever-changing components of treatment and an educational plan." He wrote that, he says, "because I find that a student's disability is either going to create a condition that could change or his needs will change as a result of aging. As he grows older and becomes heavier or taller, his chairs need to change, adjustments and switches need to change and his vision changes. We can never say 'We're going to advocate this once, get what we need and then we can all sit back and be happy.'"

Mr. Thornburg says that he and Brian Friedlander have talked about this process "and agree that implementation is where the rubber meets the road." Many parents and teams, Mr. Thornburg says, "advocate in order to acquire the high-priced device that's going to be 'the answer.' Once they have that they are convinced that the child will perform like other students do. Problem solved. They sit back and say, 'Phew!' But who is doing the implementation? We have to continue advocating through that entire process. I think that people need to get out of their heads the concept that advocacy is limited to acquiring the technology. It's a process. Throughout the student's life she is going experience change. She'll need different skill sets and the technology to support those skill sets."

Technology also changes and evolves, he reminds. "In just the past three years that I have had this job, there are devices that have been invented and are already obsolete and their replacements are already available and are needed. That alters the perspective about what we can use with students."

Store-Bought AT Hits

Some technology with educational value for children with and without disabilities can be acquired outside the IEP/504 circuit, Mr. Thornburg says. In fact, it is available at the local electronics store.

"My hot spot of the moment is the little jump-drive MP3 player available at [some stores] for $29.95. Without the visual display this device is available for $19.95. These are incredible tools. I can add

Odiogo http://www.odiogo.com/ — a free service that converts posts from bloggers and others into MP3 files — as a tool on my blog. They get your RSS feed for your blog and it goes through their system and pings back as an audio file of your text. When you click the MP3 button it will download that post or article that has been inputted as an audio file. It can then be loaded and dragged onto the little jump-drive MP3s.

"I've been showing teachers how to use text on a blog for students or to just use the Odiogo as a conversion tool. It's free, so teachers or students can write what they want knowing that their blog will never be tagged. Using it just for conversion purposes they can paste the text in, the feed picks it up and they can then download it as an MP3 file and delete the post. Now they have that text as an audio book version."

Thornburg recently purchased a fly pen manufactured by Leapfrog http://www.flyworld.com/, a talking computerized pen that translates words into other languages. "It's a smart pen that remembers what is written. Students receive audio feedback. For example, if they are writing in a journal on the special paper provided by Leapfrog, they can hear what they are writing."

"We've also used a Mini Mouse http://www.mshardwareguide.com/BlueTrackTechnology/ExplorerMiniMouse/tabid/68/Default.aspx, which can be purchased at Wal-Mart. It's a small mouse that can be used by children with orthopedic disabilities who have difficulty manipulating a conventional mouse."

Trackballs, he says, are a great modification for kids with orthopedic disabilities.

"We have used talking message photo frames, which record messages to accompany a photo. Buy about eight of them along with the Google images that a student needs in order to communicate, cut them off, print them out and slide them in where the picture goes. It gives kids a way to have a tangible hands-on item in a picture frame. You can buy these at Dollar Stores."

Key Classroom Technology Challenges for School Systems

According to Mr. Thornburg, school systems face the following four key challenges in providing effective assistive and instructional technology support to students:

1) Financial issues. "We have a federal mandate to provide accommodations versus the reality of our budget. In this current economic climate, in combination with factors such as RTI and NCLB, there are huge challenges ahead that will force us to think outside the box. For example, we used to have a self-contained special ed component, but now we can ask schools to provide additional funding. Schools have more at stake as they look at AYP. Schools are receptive to solutions."

2) Implementation for staff: "Implementation of AT in general is a challenge. With staff, training is a must. We have to tell staff, Here are the tools, here is how the tools are used. Then we have to model the use of the tools with them. Administrators need to allow time for that training."

3) Implementation for students. "After staff has been trained, implementation for students follows. Often, we introduce assistive or instructional technology to students in ways that are not attractive to them. They don't see how they can apply this technology in real life. Dr. Steven Timmer from Premier Literacy says that if students are unable to use the technology to perform a task that is important to them in daily life then that technology will not be used. If we want students to use an MP3 player and a text-to-audio program to read (or listen to) their social studies book, for example, they need to be taught how to convert an article about how the movie High School Musical III: Senior Year was made and listen to it on their MP3 player. Some might say that that task is not academic. I would disagree. We are teaching those students the skill of self-accommodation. Those students ought to be

provided with implementation models that they can use that aid them in becoming self-supporting."

4) Achieving the Universal Design for Learning (UDL) buy-in: "This is a concept that should be embraced for all students. In order to get effective assistive and instructional technology into the hands of those that benefit from it schools have to move closer to the UDL concept."

Meeting the Challenges with Creativity

Mr. Thornburg has witnessed several novel approaches in bringing information and classroom technology to those who need it in a cost-conscious environment.

At the top of list is the role of expensive travel costs in traveling to far-flung school sites in his region. Says Mr. Thornburg: "We've been looking at the cost of gasoline mileage. The federal rate now is 58.5 cents per mile. Many of my destinations that require an hour and a half drive time roundtrip cost a lot of money in terms of gas and vehicle." A possible solution: VoiceThread.com which has a doodle feature. "A video or PowerPoint presentation can be put up on VoiceThread.com for a yearly subscription fee ($10 one time fee for the minimal teacher k-12 package and $60 a year or 10 a month for classes.) "With VoiceThread teachers can view a video and record themselves talking and commenting on the presentation."

VoiceThread's doodle feature and webcam, he explains, enables teachers to see the person who made the video comment by clicking on an icon. The video can be drawn on like a game plan for football. "This feature can be used with a student who is having problems working out an algebra problem on the board. A teacher can video the student working out the problem and talk about the process and then put it up for a math expert to look at. The expert can then make recommendations to the student." For physical therapists, "employing VoiceThread can help avoid a long drive because the video features enable therapists to remotely advise a student about proper movement."

His region has not yet implemented these options. "There are some privacy issues that have to be addressed regarding student appearances in videos that appear on the web. This would occur in a password-protected environment but releases must still be obtained. "

With Meebo http://www.meebo.com/, an Ajax-based in-browser instant messaging program, he has created a virtual meeting room for his conferences with therapists and specialists. The Meebo facility, he explains, is useful for brainstorming about a student prior to an upcoming meeting. Meebo, he adds, "is very effective when staff is spread thin and time is too short to meet together in person. We can log on and discuss. In addition, we get an archive that is automatically set up there. The meeting room is by invitation only. The archive can be saved and placed in a student's file."

He says that he has also made innovative use of grant funds. "We've done some pilot programs, including one via assessment funds for special ed in which I purchased 20 sets of Test Me Score Me software and switch interfaces and two jellybean switches for each participant. I'm training teachers in ways to acquire free equipment. We've set up teacher blogs, which facilitate free access. We have also conducted train-the-trainer classes at the regional level."

Blog/Talk Radio

Mr. Thornburg moderates a blog-talk radio program in which he interviews AT experts and others. Unlike many blogs, which consist of only a few posts, his is verdant with postings about AT, universal design and related special education issues.

Initially, he remembered, "I wanted to do a podcast, "I took a recorder to the career showcase we host every year. We take our physical and occupational therapists and our AT displays and equipment there. We have activities and kids can explore. Most attendees are middle schoolers. They visit the various booths and ask, 'How did you get your job

and what do you do there?'

"The kids are bussed in for the day in time slots to interview people like me. I brought a digital recorder with me and instead interviewed the kids. I asked their opinion about AT and about the special needs kids in their schools who used AT. I placed the recording into an NPR-like audio file and put it up on my Gcast – which is a self-created podcast channel. The process took me forever but it was a wonderful."

He liked the result, but not the arduous production process and believed there might be an easier way to get the same result. "Online I found blog/talk radio and checked it out. It's real time, live stream. The producer sets up a segment and an archive where the show segments are housed, plus a blog that can be linked to so that the producer can blog in concert with the show."

His first blog/talk was with Blink Twice CEO Richard Ellison. Mr. Ellison's company produces Tango http://www.blink-twice.com/tango/index.html, a hand-held AAC device. "I had a boy in our area with cerebral palsy who could really use Tango. The boy was able to pronounce vowels only. We got the Tango for him for his birthday on a trial basis. I handed the device to him, showed him how it worked and told him, 'Your speech pathologist and I are going to sit on the other side and you can think of something to ask us or tell us. He was pushing buttons and doing what he has to do and suddenly we hear, 'Where are my birthday presents?' He then asked, 'Can I keep this?' We had to tell him that it was just a trial. So he left and wheeled down the hallway, voiceless again. His therapist said to me, 'We have to get this device for him.'"

The boy's therapist found funding through a foundation, ordered the Tango device and had placed under his Christmas tree on Christmas morning. "I emailed Tango to tell the company about it and provided links to my blog. I got a call from the Blink Twice marketing director who said that the people in her company had been in tears over the story. I asked if she would be interested in doing an interview with me for my blog/talk show. Instead, Richard Ellison said he'd do the interview. For the interview Richard was in his office in New York City. The student was in the principal's office on the phone here in Oregon. The speech pathologist was on a phone and I was on the phone in my office."

The speech pathologist programmed the boy's Tango device so that he was able to ask the Blink Twice CEO questions. "We live streamed the show. It was a big success. Richard was able to reply to the questions and told our student that the Tango device had been designed for Richard's 10-year-old son."

Since then Mr. Thornburg has interviewed several technology CEOs, children, software designers, therapists and others. One of his favorite interviews was with another blogger whose blog is named Second Chance to Live. "He had a traumatic brain injury as a child. His parents were told that he'd never graduate from high school but he went on to earn a masters degree in vocational rehabilitation and counseling. I put his interview on the blog/talk radio main site. The site combs through and posts highlights of the day's offerings. That day I saw my blog/talk Second Chance to Live interview listed alongside interviews with John McCain, Brad Pitt and Yoko Ono. That was my one minute of fame."

A Heart for Kids

When Mr. Thornburg was first asked to take on his current job, he feared that the absence of special education in his background might prove to be a hindrance to success. He thought, I'm not an expert. I'm just a teacher who knows technology and has a heart for kids. Today, he says, "I'm doing all that I can to be an effective advocate, although at first the prospect of taking on this assignment was more than a little intimidating for me. Now I have confidence in what I know, what I want to do and how I want to do it."

Chuck's Tips for Parent Advocacy

Chuck DiPietro is father to Rachel, 15 (Hyperlexia, similar to Asperger's) and Daniel, 11 (Autism, non-verbal). Like most parents, they spent many years processing the wide range of intense emotions, which accompany the realities of the diagnosis, but despair eventually gave way to resolve, and a transformation to advocacy emerged.

The DiPietro family continues to advocate on the part of their children, especially Daniel, who is non-verbal, and severely Autistic. Over the years, their advocacy has taken them in different directions, depending on the needs of their children at that time, and they believe that these approaches can serve as a model for others seeking to make sure their children are provided whatever tools necessary to achieve their highest potential.

You've cried and screamed and stayed up nights, went to the specialists and tried finding the magic bullet. Now, you know your child is going to need long term Special Education Services, and you're being introduced into a world which has all the charm of a rugby game in its final minutes. Without you, your child is going to get the bare minimum of services available, because everyone has a boss, and that boss has a boss who needs to save money. Those are the facts. Better get your game face on, this new chapter in your life is not for the faint of heart. Most of what I'll tell you next is from http://www.wrightslaw.com/ and the rest is how their information, applied passionately, got my Autistic son the best our District had to offer.

1) Be a Partner, not a Pugilist.

a. Smile. Say "Thank You" (and mean it). Shake Hands. Make good Eye Contact. Say how much you appreciate what these people are doing for you and your child. Always remember, these are people who are trying to do their best, in a system with limited resources. You need to meet them as professionals who have a job to do. You in turn are a professional with a job to do. Be intelligent, well-informed, well read, courteous, and appreciative. Remember the flies and the honey, as you carry the reams of case law precedents into the conference room.

b. This is not a boxing match. This is doing whatever it takes to get what are APPROPRIATE services for your child. The fact is, it's the School District's playground, and you don't want them to take their ball and go home.

c. Banging on the table, sobbing, and yelling are no ways to achieve the goal. Ask yourself, "What *IS* the goal of this meeting, or this process?" If the answer is not "to get what is best and most appropriate for your child", then you have the wrong motivation, and you will not succeed. Expressing frustrations, releasing hurt and anger, or taking it all out on someone, are *not* ways to get your child what she/he needs. Read "From Emotions to Advocacy" for further explanation. http://www.wrightslaw.com/store/feta.html

2) Understand the Law.

a. In the words of Chester Karas, "You don't get what you deserve, you get what you negotiate." This is also true with school districts. We are not entitled to anything more or less than a "free appropriate public education" (FAPE). The word '*appropriate*' is where the negotiation lies. Your interpretation of this word can and will be very different than the district's. The words that follow are of equal importance, "*in a least restrictive environment*" (LRE). '*Least*' is the key word there.

b. www.wrightslaw.com is an excellent resource. Dedicate some time to researching this website. Everything you need to know is there, but you have to be willing to put in the time and get your hands dirty in the no glory role of doing your homework. Every sit-

uation, like *extended school year services*, *testing requirements*, or *least restrictive environment* has case law, displaying precedent, many times even in your own state.

c. Prepare yourself by having your facts straight. Do not go into *any* meeting without a game plan of what you want to accomplish on *that* day, in *that* meeting. Sometimes it is as simple as getting names and email addresses for future correspondence, or putting faces with names so that the process is more personal. For any meeting you must remember, do not go in flat footed, and never spout figures or facts unless you have backup documentation. This is *their* world, and they will call you out on it, and you will lose credibility.

d. Meet other parents in the District. Make connections. Not only will they be a valuable support system, as they may have a true understanding of what you are going through, but your case law precedent may be right down the street from you.

3) TEST, TEST, TEST

a. Get it QUANTIFIED, not just QUALIFIED. There is no way to measure true progress without metrics. IEP's are famous for using arbitrary measures of success and ambiguous goals. Check out this link http://www.wrightslaw.com/advoc/articles/tests_measurements.html

b. Many placement settings and service approaches will be opened up to you if State Requirements and Grade Equivalency are shown in standardized test scores, which may not have been opened to you otherwise. This was certainly true in our case.

c. Low score potential is *not* an excuse for not being given the opportunity to take a test. If you are a parent, trying to get services secured for a child, it may well be more beneficial to have a low score than a high score. Again, *what is your goal*? It all depends on which setting you are trying to get into, or out of.

For example, our son is Autistic and non-erbal, and we wanted an IQ test, but were told there was no such thing. Upon further research we found there was one, and we requested it, and the scores became one of the cornerstones of our case.

d. Independent Evaluations are critical. You are not an expert. Refer to the experts. Rely on their documentation to prove your point about FAPE and LRE. You are the parent, and you have important roles. Being an expert in psychology, therapies, interventions, models, etc… is not your area of expertise and it is not expected to be.

4) Documentation, Documentation, Documentation

a. If it isn't in writing, it never happened. Deal with it. Take notes at every meeting. Your notes might end up with different content than their notes (and don't be surprised when they do.)

b. Follow up on any plans and actions for the future. If you agreed to meet, confirm in writing for the place and time. CC everybody. The paper trail is *much* mightier than the sword.

c. Volunteer to make calls, send follow-ups, get information. Be as important a team member as anyone else, and prove it through your actions.

d. Keep dates for everything.

e. Read and re-read your IEP for anything that was omitted, or phrased incorrectly. Understand what is *in* it. Add to it, subtract from it. Get approval on the spot, and build consensus as an important team member. You need to assert your importance in the process early, and reassert it in *every* meeting, especially by

showing what you have been working on, since the last meeting. The best way to lose credibility, is to show the other members, already busting their butts with 50 other kids, that you don't think it is important enough for you to bust your butt too.

5) Settle Down

a. This is a marathon, not a sprint. You are going to get to know these people over the years. Yes, *years*. We have met with people who were "green" and right out of college, and years later, they worked their way up, kept working with our kids in varying capacities, and were eventually promoted to positions where important decisions were being made that benefited our child. Don't burn bridges. Every meeting is an opportunity to show you that you get it. **This is a team effort, and you can't do it alone.**

The most important thing to remember is that this is your job now. It may not be one you would have chosen, but rather, you were chosen for it. You might well be doing it for the rest of your life. There is no higher calling. **You are the best person for this job. A little at a time, persistence does pay off.**

I never thought I would ever have to know any of this stuff. I've learned terminology and processes I would have never otherwise known existed. What I can say for sure is that the successes we've enjoyed had far more to do with the people we've worked with in the district than with me personally. Teachers, therapists, administrators, and coordinators have ALL been necessary, or nothing I could have done on my own would have helped Daniel. That realization has guided all my decisions and approaches, and the combination of all of it has truly made a difference in the life of a child.

RESOURCES

Articles

The Marriage of AT and IT
By Ben Satterfield and Pat Satterfield
ConnSENSE Bulletin (2005)
The authors of this article review the difficulties that IT managers may face when trying to implement and fully integrate assistive technology into the fold of instructional technology. Although occasionally controversial in their tone, the Satterfields offer several compelling reasons for IT managers to provide crucial support to efforts to integrate educational technologies. The reasons include federal law, best practices and the need for differentiated instruction. Several strategies and useful resources are provided to help solve a common range of IT/AT problems resulting from the disparity between an educator's responsibilities and an IT manager's obligations: i.e., stringent hardware and software policies that may prevent teachers from upgrading or implementing beneficial programs or changing settings to ease viewing/sound/compatibility issues, and the need to maintain and secure the systems the IT managers administer.
http://www.connsensebulletin.com/marriage.html

A Review of Technology-Based Approaches for Reading Instruction: Tools for Researchers and Vendors
By H. Silver-Pacuilla, K. Ruedel and S. Mistrett
This paper describes the development of the Reading Matrix, a searchable database that presents evidence-based technology products that support instruction for students with reading disabilities. The authors explore the relationship between reading skills development and computer based technology approaches.

A multi-vocal synthesis approach was used to investigate this area, which is characterized as having

"an abundance of diverse documents and a scarcity of systematic investigations." The year-long project was supported by the U.S. Department of Education's Office of Special Education Programs (OSEP). A panel of experts was convened to explore the relationship between reading skill development and technology-based approaches. A literature review was completed and 29 articles met the criteria for inclusion in the matrix, which is updated quarterly. The paper also discusses the purposes, instructional strategies, educational contexts and related research in each category.

Two matrices accompany this article, a Publications Matrix and a Products Matrix. The paper and matrices showcase the emerging evidence and technology development in the area of reading for students with learning and reading disabilities.
http://www.cited.org/library/site/docs/AReviewTechnology-BasedApproaches_final.pdf

PATINS Project (Promoting Achievement through Technology and Instruction for All Students)
By Vicki Hershman
The PATINS Project is a program designed in Indiana to develop organizational and professional capabilities within school systems in order to effectively deliver AT services and implement Universal Design for Learning (UDL) principles.

The program has developed five regional sites offering computer refurbishing, a lending library and statewide software purchases and training to assist school systems in effectively implementing the UDL approach to teaching and learning. The website features examples of lesson plans that are comprehensive and include the scope and sequence from Indiana's state standards. These lesson plans are templates for creating similar plans aligned with other state standards.
http://www.patinsproject.com/

Technology Supported Math Instruction for Students with Disabilities: Two Decades of Research and Development
By Ted S. Hasselbring, Alan C. Lott, Janet M Zydney
Wisconsin Educational Technology Association (2006)
The authors trace the difficulties experienced by students with disabilities in understanding basic math concepts. They also offer suggestions to help schools improve math knowledge and meet NCLB test score standards. According to the authors, student understanding of the following types of mathematical knowledge is necessary to achieve competency in math: declarative, or factual, knowledge; procedural knowledge, an understanding of the rules and procedures employed in solving math problems; conceptual knowledge, which demonstrates understanding of the problem-solving process and the application of the appropriate procedure to obtain a correct solution.

The article describes methods aimed at helping students gain math competency and the technology available to assist children retrieving math facts. The authors explain the value of computer technology in classrooms of 25-30 students where individual focus is difficult for teachers to achieve. http://www.ldonline.org/article/6291

A Recipe for Success in Helping Teachers Integrate Technology Effectively
By Dorothy Laufer
Newsletter Western Center for Microcomputers in Special Education, Inc. (2006)
Success stories can be a boon to teachers striving to implement AT in their classrooms. This article was written by a teacher and outlines suggested steps leading to successful classroom AT implementation. For example, she describes a project in which technology helped elementary school students learn English in a classroom in which Mohawk was the primary language of instruction. To obtain this article by mail, contact:

Western Center for Microcomputers in Special Education
1259 El Camino Real #275
Menlo Park, CA 94025
Voice Mail: 800-647-0314
Email: info@thecatalyst.us
http://www.thecatalyst.us/zDoneArticles/22_3_Laufer.pdf

Assistive Technology and Education
Indiana Protection and Advocacy Services (2008)
Aimed at parents of children with disabilities who may qualify for AT, this article offers tips on AT referral, evaluation, student options and rights under Section 504 of the Rehabilitation Act of 1973 – which stipulates that students without an IEP may be eligible for AT – and writing AT into a child's IEP. The author describes the obligations of a child's school and of the parents in regard to equipment ownership and maintenance. Also discussed are classroom AT applications, a child's physical positioning in the classroom, AT access, environmental control, augmentative communication, assistive listening, visual aids, mobility, computer-based instruction, social interaction and recreation and self-care.
http://www.in.gov/ipas/2673.htm

A Parent's Guide to Section 504
By Mary Durheim - Great Schools (2008)
This article addresses basic questions regarding the implementation of Section 504 in public school systems. The author begins by stating that schools have the right and responsibility to establish their own policies and procedures for implementing Section 504. Ms. Durheim offers basic information about Section 504, qualifying individuals, evaluation eligibility guidelines, accommodations and more.
http://www.greatschools.net/cgi-bin/showarticle/2777

Guides

A Parent's Guide to Special Education: Insider Advice on How to Navigate the System and Help Your Child Succeed
By Linda Wilmshurst, Alan W. Brue
AMACOM Division of the American Management Association (2005)
This guide provides guidance for families of children with disabilities, teachers, counselors and administrators on special education. Diagnosis and awareness, special education laws, eligibility issues and requirements, programs, parenting issues and communication between parents and schools are discussed.
http://books.google.com/books?id=VHmPuIEc694C&dq=A+Parent's+Guide+to+Special+Education:+Insider+Advice+on+How+to+Navigate&printsec=frontcover&source=bl&ots=KNFdX7lIbe&sig=BDsxLerhS14nDE7tT9OGgQLLBiI&hl=en&sa=X&oi=book_result&resnum=1&ct=result#PPP1,M1

Multimedia Instruction for Students Who Are Deaf
CITEd Research Center (2007)
This training guide is designed to teach educators how to use a multimedia approach in the classroom in order to aid deaf students in improving skills in literacy, mathematics and communication. The guide defines multimedia and outlines the most effective methods of its implementation in a classroom environment. The author shares tips for creating multimedia materials and includes descriptions of relevant research as well as links to resources cited in the training material. Included in the discussion are supported e-text, use of signing avatars and speech recognition software for use in English and math. Communication between the hearing and deaf is also addressed. Use of Internet supports such as email, blogs, listservs, and video phones is included. Links to technology listed in the training guide include the Signed Science dictionary, the iCommunicator, online sign instruction and the Dragon family of speech recognition software.
http://216.139.220.43/index.aspx?page_id=153

Websites

Pathway to Achievement: Universal Design for Learning

Kentucky Department of Education (2004, updated 2008)

Designed for Kentucky teachers but useful for others elsewhere, this website defines the concept of Universal Design for Learning (UDL) and explains its utility for students with learning differences requiring an alternative means of expression. Links are provided to access a UDL toolkit entitled "Providing for All Learners (PAL) and to digital curricula.

http://www.education.ky.gov/KDE/Instructional+Resources/Curriculum+Documents+and+Resources/Universal+Design+for+Learning/default.htm

Blogs

My Talk Radio Show

No Limits to Learning Live

Educator and AT expert Lon Thornburg's online blog/talk radio program brings listeners product reviews, interviews with experts, vendors, educators and families that use, teach or design technology that supports physical, cognitive and learning disabilities.

http://www.blogtalkradio.com/nolimits2learninglive

SpeEdChange

This site is the home blog for Ira Socol, a prolific blogger and writer on AT and special ed issues.

http://speedchange.blogspot.com

KNOWLEDGE NETWORK MEMBERS

National Center for Technology Planning (NCTP)

NCTP is a clearinghouse for the exchange of technology planning information related to technology planning, including school technology plans available for downloading online; technology planning aids (checklists, brochures, sample planning forms, public relations announcement forms); and/or electronic monographs on timely, selected topics. The center's main emphasis is on technology planning for education purposes. School districts supply NCTP with web links to their technology plans which are then added to the center's repository. NCTP makes these plans electronically available for Internet download. NCTP also conducts technology planning workshops, provides coaching and consulting assistance and print material. For further information, contact:

National Center for Technology Planning
P.O. Box 2393
Tupelo, MS 38803
Phone: (662) 844-9630 (voice and fax)
Contact: Dr. Larry Andersen, founder and Director
http://www.nctp.com/about.cfm

Alabama Disabilities Advocacy Project (ADAP)

ADAP provides legally-based advocacy services to Alabama residents with disabilities. The organization is part of the federally-mandated protection and advocacy system (P&A) system. Included among the organization's programs is Protection and

Advocacy for Assistive Technology (PATT), which provides legal and non-legal advocacy services who are denied access to AT devices and services. For additional information about ADAP, contact:
Alabama Disabilities Advocacy Program
Box 870395
Tuscaloosa, AL 35487-0395
Phone: (205) 348-4928 (voice/TDD); (205) 348-9484 (TTY/local); (800) 826-1675 (voice/TTY) (in-state only)
Fax: (205) 348-3909
Email: adap@adap.ua.edu
http://www.adap.net/adap-info.html

Assistive and Instructional Technology Lab: University of Texas

What Starts Here Changes The World
THE UNIVERSITY OF TEXAS AT AUSTIN

The lab offers interactive activities aimed at familiarizing undergraduate and graduate-level students with hardware and software applications that facilitate access for individuals with disabilities. Available for use by all UT professors and students, the lab integrates assistive and instructional technology content into teacher preparation and doctoral training programs in the UT College of Education and other courses. AT lab courses cover the following topics: sensory aids, home/worksite modifications, environmental control systems, communication aids, recreational adaptations, mobility aids, aids for daily living, seating and positioning aids and instructional aids. For additional information, contact:
Assistive Technology and Instructional Technology Lab
College of Education
George I. Sanchez Building, Room 518 E
University of Texas
Austin, TX
Phone: (512) 471-4004
Fax: (512) 471-4655
Contact: Marcie Bump, Lab Manager
E:mail: mbump@teachnet.edb.utexas.edu
http://www.edb.utexas.edu/ATLab/index.php

ICATER Lab: University of Iowa

Iowa Center for Assistive Technology Education and Research

The ICATER (Iowa Center for AT Education and Research) lab maintains AT devices. The lab provides training and research facilities for faculty, inservice and preservice teachers. It provides College of Education students with disabilities equal access to software and hardware computer programs offered at all University of Iowa Instructional Technology Centers. The lab enables researchers to gather information about the utility of AT devices in educating future teachers. For more information on the lab, contact:
Iowa Center for Assistive Technology Education and Research
College of Education
The University of Iowa
N338A Lindquist Center
Iowa City, Iowa 52242-1529
Phone: (319) 335-5280
Contact: Dennis Maki, Ph.D., Director
Email: dennis-maki@uiowa.edu
http://www.education.uiowa.edu/icater/AT_lab.htm

Accessible Technologies for All Students Project

The Accessible Technologies for All Students Project is a leadership initiative of the Consortium for School Networking (CoSN). The goal of this initiative is to increase performance for all students through the effective use of accessible technologies. The core priniciple behind this initiative is based upon the belief that the close collaboration of assistive

technology (AT) and instructional technology (IT) services at the school district level will enhance and facilitate learning for all students – those with disabilities and those without disabilities. The website offers resources to help school districts ensure that all students have access to technologies that support engagement with the curriculum and help them to learn.
http://www.accessibletech4all.org/index.cfm

HERE AT FCTD WE ALWAYS WELCOME YOUR SUGGESTIONS FOR NEWSLETTER AND DISCUSSION TOPICS.

IF THERE IS SOMETHING YOU WOULD LIKE TO SEE DISCUSSED, PLEASE CONTACT US AT
fctd@aed.org

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fctd@aed.org www.fctd.info

We are pleased to announce that FCTD has successfully moved our website to a new server. Due to the move, the discussion that was orginally scheduled for November will take place in December.

We look forward to your participation in another lively and information-rich FCTD online discussion.

Parent Advocacy and Family-School Partnership

December 1 - 30, 2008

Joining us as moderators, we are pleased to welome

Lon Thornburg,
Veteran Teacher and
Assistive Technology Specialist

and

Charles DiPietro,
Parent Advocate

Effective parent advocacy takes time and effort, but has proven to result in superior educational outcomes for children with disabilities.

Join our experts and colleagues throughout the country in sharing strategies for productive parent advocacy and family-school partnerships.

http://www.fctd.info/webboard/index.php