

A Closer Look

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Georgia's Technology Assistance Project
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Information, Information, Information! by Joy Kniskern, Program Coordinator

In this age of instant communication, E-mail and the Internet, around-the-clock news channels, and someone always looking for a new way to sell us something, you may be tempted to sling aside yet another bid to give you "information." We hope that you won't toss the first issue of A Closer Look aside because, well, because we think you will find it not only informational, but also helpful. Each issue of A Closer Look will focus on a central topic; this month's featured topic is learning disabilities. In future months we will examine issues that affect senior citizens, IDEA, augmentative communication technology, low-interest loan funds, technology loan closets and other topics suggested by our customers.

Individuals with learning disabilities face significant difficulties receiving services because their disability is "hidden" and are frequently misunderstood by those in a position to help them. While public and professional awareness has advanced in the last few years, there is still a long way to go to ensure that those needing assistive technology and other services can secure it. We hope that this first issue of A Closer Look will prove, yes, informative.

A Closer Look: Learning Disabilities and Assistive Technology by Christopher M. Lee

Brent struggles to form each letter of the words on his tablet. Michelle looks at her checkbook to spell her name and address on a job application. After his son falls asleep, Bill slams the third-grade reader shut in frustration because he can't read it to his child or himself. Susan just received the wrong change at the grocery store, but she cannot tell because she can't count fast enough. Jack, late again for another job interview, drives around anxiously in search of office building number 215, or is it 251? Mark's mind drifts away to many other places as he tries again to concentrate on his GED examination.

These conscientious people share one thing in common: learning disabilities. They have the intelligence to accomplish all of these tasks; they have just not found the means to accommodate their needs. But, there are ways for them to reach their goals if they have the appropriate support behind them. Such is the purpose of this guide-- to provide information on assistive technology for individuals with learning disabilities and their providers.

Assistive technology is an important piece of the whole support system individuals with learning disabilities require to achieve success. Exactly what is assistive technology (AT)? AT is any item, piece of equipment, or product that is used to increase, maintain or improve the abilities of individuals with disabilities: tools to promote independence across all areas of daily living. These common tools extend from low-tech, low-cost items to high-tech, more expensive devices. Low-tech devices require little or no training; high-tech devices may require extensive training.

Technology can affect the lives of people with learning disabilities in daily living, whether it's in the classroom, at work, in the home, or in other social settings. Technology provides, in other words, valuable tools for life. The simplicity and ready availability of low-tech devices should not be overlooked. Inexpensive color high lighters, for

example, can help individuals with reading difficulties distinguish words that appear the same, like proud, pound, and pond. Providers help the student highlight the troublesome words in different colors and make the reader visually aware of the differences between these words. Such training leads the student to a higher level of awareness of his/her disabilities. High-tech devices, such as an optical character recognition (OCR) system, provides a means of entering text or printed material directly into a computer by use of a scanner. Once the text has been scanned into the computer, it can be read back to the user by means of a speech synthesizer. Another useful accommodation is a speech recognition system. Appropriate for adults with learning disabilities, the system operates in conjunction with specially equipped personal computers. Such programs enable the user to dictate to the computer, converting oral language to written text.

New technological systems and their applications continue to evolve rapidly. In the recent past, technologies now applied to individuals with learning disabilities were originally developed for people with other disabilities. OCR programs, to select one example, appeared at first for individuals with visual impairments or blindness. Only recently were these programs found to be effective in the learning disability community.

Technology in itself is not the answer to all problems faced by people with learning disabilities or for their service providers. Technology does, however, provide valuable tools for life. Those seeking technological assistance should focus not on the device, but on what the device can do for the individual in need. The fit must be right. The biggest or most expensive may not always be the best fit. The key to selecting the most appropriate tool involves many elements: seeking a thorough team evaluation, finding the resources to obtain the technology, customizing the technology to make the best fit, and providing the time as well as the patience for training.

The answers are not always simple but demand attention. As a consumer, an individual with learning disabilities, I can speak from experience that technology has made a difference not only in my work environment but also in my day-to-day living. For all the Brents, Michelles, Bills, Susans, Jacks, and Marks who seek your help, there are assistive tools to level the field and give them the opportunity to reach their dreams.

Legislative Watch: If you have questions about the laws and acts listed below, or any laws and acts relating to assistive technology and people with disabilities, contact Tamara Rorie at 404-657-3080.

Purpose of the COPYRIGHT LAW

The Copyright Law was amended in September, 1996 to make it easier for service providers to provide materials in alternative format. Producers no longer need permission from publishers and copyright holders if materials are being used solely for the use of people with disabilities.

Purposes of the GEORGIA ASSISTIVE TECHNOLOGY WARRANTY ACT OF 1993

To provide warranties for devices or equipment that cost \$1,000 or more and which assist persons with disabilities to perform specific tasks. This law provides for...

- Protections for equipment bought from any vendor selling equipment in Georgia.
- Repair of equipment costing \$1,000 or more and bought after the law went into effect on July 1, 1993.
- Return or replacement of assistive technology devices recommended by the manufacturer or dealer if the device does not meet the needs of the person with disabilities.
- Replacement of a piece of broken equipment, unless the equipment was taken back for repair four times.
- Protections when buying donated equipment.
- Protection when buying equipment owned previously by someone else.

Purposes of the GEORGIA MOTORIZED WHEELCHAIR WARRANTY ACT OF 1993

The Motorized Wheelchair Warranty Act provides for express warranties on motorized wheelchairs. This law provides for...

- Return, refund, or replacement of a comparable motorized wheelchair if the one recommended by the dealer does not meet the needs of the individual with a disability.
- Protections for equipment bought from any vendor selling equipment in Georgia.

* No one can deny your rights under this Act by asking you to sign a waiver of your rights to protection.

What Is a Learning Disability?

Payne and Associates, Sturomski and Associates

Broadly defined, the term learning disability has been used to describe a variety of problems in acquiring, storing, and/or retrieving information. People with learning disabilities have difficulty taking information in through the senses and processing the information with accuracy to the brain. The information becomes scrambled, like a short circuit, a distorted radio signal, or a fuzzy television picture. Learning disabilities occur irrespective of race, culture or class. People with learning disabilities possess average or above average intelligence levels; however, the disability is often confused with other difficulties including slow learning, retardation, emotional and/or behavioral disabilities.

Thought to be a neurologically based nervous system disorder, learning disabilities are not the result of visual, hearing, and/or physical disabilities; mental retardation; emotional disturbance; acquired brain injury; ineffective instruction or lack of motivation to learn; cultural diversity; and/or socio-economic conditions. Learning disabilities can be genetic or acquired and may accompany other disabilities such as deficits in sight and hearing. They may also be the result of birth trauma, low birth weight, lead poisoning, fetal alcohol syndrome/effect and long-term chemical dependence.

The inaccurate sensory transmissions to the brain may often lead to difficulty learning and performing in training and job settings, as well as to emotional instability. The most common manifestations occur in the areas of reading, writing, and/or mathematics, subsequently affecting a broad range of skills and functions. Additionally, manifestations are commonly found in attention, reasoning and processing, memory, oral communication, coordination and motor functions, social competencies and executive functioning skills such as organizing, problem solving, prioritizing and self-management.

This condition is the most neglected, most misunderstood disability due to its hidden nature--and there is no cure. However, with appropriate accommodations and training adjustments, the person with learning disabilities can learn to take advantage of strengths and minimize weaknesses, and thus enhance the potential of success in training and employment environments.

Recent research suggests 10 to 14 percent of those presently in the workplace have learning disabilities. Additionally, 50-80 percent of those requesting basic skills/training, and 30-35 percent of those requesting work force training and employment placement services have learning disabilities--many undiagnosed.

Without reasonable accommodations, the person with learning disabilities is presented with innumerable barriers. The inability to demonstrate skills adequately results in poor performance evaluations, stress related health problems, and job instability, not to mention the unrealized productivity standards of the employer. Without appropriate education and training, there are few employment opportunities which allow advancement. 09 Technology and Learning Disabilities

Why Should Persons with Learning Disabilities Consider Using Assistive Technology?

There are a number of reasons why assistive technology devices may enhance the lives of persons with learning problems. Specifically, the rationale for using AT devices relates to five factors:

- the persistence of the learning problems across the life span,
- the benefits of AT devices demonstrated by research,
- the help AT provides to "work around" a deficiency rather than trying to "fix" a deficiency that shows resistance to such an approach (that is, compensation rather than remediation),
- the independence AT can offer, and
- various contexts within which AT devices are appropriate.

Let's examine each of these factors.

Persistence of Learning Problems: Learning problems are not "cured" or outgrown. In many instances, children with learning problems grow up to be adults with learning problems. Learning problems that persist into adulthood are associated with a wide range of difficulties (for example, reading, writing, speaking, listening, spelling, math, organization, social functioning, psychological adjustment). These persistent problems are manifested in such areas as

- independent living,
- home management,
- money management,
- job retention and success,
- post-secondary education, and
- social interaction.

The recognition that learning problems persist into adulthood has resulted in the search for alternative approaches for helping persons with learning problems reach their full potential and lead satisfying and rewarding lives. The use of assistive technology devices is one such approach, in that AT devices help an individual compensate for specific disability-related limitations.

Research on the Effects of AT: Research has demonstrated the effectiveness of assistive technology as an empowering aid for individuals who have learning problems.

These researchers have shown that such devices and systems as word processors, "reading machines," "talking computers," speech recognition systems, and electronic spell checkers can be used by individuals with learning problems to compensate for reading, writing, and spelling difficulties.

The Potential for Independence: Research has shown that many individuals with learning problems are overly reliant on parents, siblings, friends, teachers, and co-workers across a variety of settings including work. When individuals with learning problems continually rely on others to help resolve their problems, the transition into adolescence and adulthood may be slowed and self-esteem will plummet. Furthermore, over-reliance on others may raise anxiety levels and stress interpersonal relationships. Such dependence is the "last thing" needed by persons who may already suffer from low self-esteem, anxiety, and frustration, and poor social relationships.

Assistive technology provides a means for students with learning problems to accomplish tasks independently. The benefits of independent accomplishment in persons with learning problems have been stressed by Polloway, Smith, and Patton (1988). For the most part, the device will be there when and where it is needed, and should reduce the potential psychological stress and possible negative social ramifications of having to rely continually upon others.

Contexts of Interaction Although learning problems are generally considered with regard to the school setting, it is important to keep in mind that individuals with learning problems function in other contexts as well. They must also function at home, in the workplace, at social gatherings, and in recreational/leisure activities. The availability of easily portable AT devices (many of which are pocket-sized) allows the individual with a learning problem to

transport a compensatory tool from one setting to another. Whether it is organizing a class report, writing a letter to a friend at home with the assistance of a word processor, checking for spelling errors in a memo to a co-worker, or using a calculator to help keep score in a card game, assistive technology devices may provide the needed support to accomplish effectively tasks in a variety of contexts and settings.

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LD Adults of Georgia

Issues Committee

Issue: Adults with diagnosed and undiagnosed learning disabilities face serious problems in our society. They are is proportionally represented among, school dropouts, juvenile delinquents, drug abusers, adult illiterates, the welfare dependent, the unemployed or underemployed, and others who depend on public services. These problems arise in part from the fact that learning disabilities are often attributed to causes other than a disability: laziness, intellectual deficiency, social ineptness, and many other judgements rendered by employers, educator, and other service providers unaware of the particular difficulties faced by individuals with LD.

As a result, persons with LD are often excluded from employment and educational opportunities because they do not have access to affordable, reliable and /or available professional assessment, evaluation, and support services. With screening and/or appropriate professional evaluation and assessment, these individuals struggle against daunting odds to receive appropriate educational services and to maintain jobs. These people frequently fall through the cracks and land squarely on top of social service or penal agencies.

So, society in general pays a price because the system fails to recognize the relationship between LD and the problems delineated above, and scarce resources are drained from already strained public coffers.

Proposed Solution: A "First Step" service to fund affordable, reliable, and accessible screening and evaluation for persons demonstrating characteristics commonly associated with learning difficulties.

The object of this service is to make screening, assessment, and/or evaluation more readily accessible to those in need. Such accessibility could be achieved by, for example, one or more mobile testing units, a central assessment center (say, in Macon), or through four or five regional evaluation centers strategically located throughout the state.

Contact Christopher Lee @ 404-657-3081 for additional information related to this project.

Be Your Own Advocate

Mike Weeks

INTRODUCING...The second edition of our funding guide: Dollars and Sense: A Guide to Solving the Funding Puzzle and Getting Assistive Technology in Georgia

Dollars and Sense is a collection of processes and program information for use by service providers, advocates, people with disabilities and their families for finding resources for assistive technology. This guide is broken down into five areas:

- Introduction to Assistive Technology (AT) and Georgia's Tools for Life services

- Processes for Developing Funding Strategies for AT Devices and Services
- Possible Funding Resources (Funding Charts)
- Public Funding Resources Private and
- Other Funding Resources Appendices, containing funding strategies, Georgia public and private local agency contacts, national resources, as well as grant and foundation information.

Many agencies and organizations have used this guide for obtaining funding resources and for empowering their customers and personnel to become better advocates for assistive technology.

To order: Dollars and Sense: A Guide to Solving the Funding Puzzle and Getting Assistive Technology in Georgia is available for \$15.00 per copy plus \$4.00 for shipping and handling. Add \$1.00 for shipping and handling for each additional guide. 20 Send to

Georgia Department of Human Resource, Division of Rehabilitation Services, Tools for Life - Mike Weeks, 2 Peachtree Street, NW 35.415 09 Atlanta, Georgia 30303-3142

Call Tools for Life at (800) 497-8665 (TOOL) for additional information.

Tech-Able: Empowering and Enriching Lives Through Assistive Technology by Carolyn McGonagill

At Tech-Able, we believe every person has a basic set of rights that can be promoted through the individuals use of assistive technology (AT) within an inclusive setting. These rights include: better self care, more mobility, freer communication, intellectual growth, access to play, inclusion, opportunities for socialization, and self-determination.

Tech-Able, located in Conyers, is one of seven (7) Technology Resource Centers (TRC) around the state providing "hands on" learning about assistive technology for Georgians with disabilities, which is accomplished through demonstration, education, loan and evaluation of various assistive technology devices.

Tech-Able is a non-profit organization that was developed to provide people with disabilities with information and access to assistive technology devices. We believe that assistive technology can empower physically and mentally challenged people with a means to have greater control and direction of their own lives. By being a link between consumers and vendors, Tech-Able provides information on and access to computer hardware and software, as well as other assistive devices.

By networking like the other Tools for Life Technology Resource Centers, Tech-Able provides consumers with information on additional resources. Fabrication Design and manufacture of specialty items such as keyguards for keyboards, calculators, laptops, and telephones are done on the premises.

We also manufacture a variety of items in line with the needs of the user such as momentary, light-scanning operating, off-on, mercury, and squeeze switches. Toy adaptation and scanners for people with non-verbal communication needs are available upon request.

Some other services Tech-Able and other TRCs provide are: Toy Lending Library Group and Individual Training Product Demonstration Consultations Information and Dissemination Tech-Able's services are available to any person of any age with any disability, as well as to families, and/or any service provider interested in enhancing and enriching the lives of people with special needs. If you have a need, we can help to provide a solution. Please contact us at 770-922-6768.

Technology-at-a-Glance Keyguards allow and promote accuracy in keypressing by single finger, headstick, hand-held dowel, or mouthstick typists. Tech-Able specializes in producing keyguards for calculators, hand-held games/spelling computers, telephones, laptop computers and computer keyboards.

Bernie Bourdon, Director of Adaptive Technology at Tech-Able, designs and fabricates any type of keyguard requested, including those for BAT, CIRQUE and Ergonomic keyboards. There is no device, regardless of the complexity, requiring a keyguard that Mr. Bourdon will not endeavor to design.

All we need is the make and model number or the item shipped to us for fabrication. If we have the specific drawing and/or template on file, we can fabricate and ship within ten (10) working days after receipt of your purchase order. I

In the event we have not fabricated your specific model number or item, we ask that you ship the item to us. A design will be prepared in accordance with the configuration of keys and then all items will be shipped to you within fourteen (14) working days after receipt of the item. A variety of keyguards have been fabricated at Tech-Able - from the old Commodore 64 (yes, we still receive requests for these) to the latest Apple Extended Model 2980.

Our prices begin at \$90, plus \$10 for shipping and handling. The complexity of design will determine the cost. Contact Tech-Able today by phone (770-922-6768) or fax (770-922-6769) and let us know your KEYGUARD needs.

WHATEVER THE NEED, WE CAN PROVIDE THE SOLUTION!

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