



# DIRECTIONS

## *Technology in Special Education*

Vol. 12 , No. 2

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### *Assistive Technology: Its Use CAN Help!*

### **Part II**

#### **TECHNOLOGY-RELATED ASSISTANCE FOR INDIVIDUALS WITH DISABILITIES ACT OF 1988 Public Law 100-407/ Tech Act**

The Tech Act was passed as an amendment to the IDEA (Individuals with Disabilities Education Act) in 1988 in order to establish a program of grants to states to promote the provision of technology related assistance to individuals with disabilities, and for other purposes. What this means is that the act was passed in order to provide federal monies to states to establish programs and agencies to help individuals with disabilities (and their parents and guardians) in technology related areas.

The act is broken into various sections. The two sections which are pertinent to our readers are the findings that led to the submission of the act, and the actual purpose of the act. Each of these will be paraphrased from the act itself.

Before we outline the findings and purposes of the act though, its a good idea to understand exactly what the Federal Government means when they talk about an assistive technology device, or an assistive technology service. These are defined in the act as:

*Assistive Technology Device:* Any

item, piece of equipment, or product system, whether acquired commercially off the shelf: modified, or customized. that is used to *increase, maintain, or improve* functional capabilities of individuals with disabilities.

*Assistive Technology Service:* Any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device. Such term includes: a) the *evaluation* of needs of an individual with a disability; b) *purchasing, leasing, or otherwise providing* for the acquisition of an assistive technology device;

c) *selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing* of assistive technology devices ; d) coordinating and using other therapies, interventions, or services with assistive technology devices; e) *training* or technical assistance for an individual with a disability, or where appropriate, *the family of an individual with a disability*; f) training or *technical assistance* for professionals, employers, or other individuals who provide services to, employ, or are otherwise substantially involved in the major life functions of individuals with disabilities.

*(Continued on page 3)*

#### ***FATIC – March 2-4, 1995***

Orange County Convention Center, Orlando, Florida

The Fourth Annual Florida Assistive Technology Impact Conference (FATIC) will be held at the Orange County Convention Center on March 2-4, 1995 in Orlando, Florida. FATIC is also teaming with the Technology and Media Division (TAM) of the International Council for Exceptional Children (CEC).

FATIC/TAM is attracting speakers and researchers from around the world, and will focus on the uses of adaptive and assistive technology to facilitate the inclusion of special needs students. FATIC/TAM will offer sessions on sensory, physical, mental, speech and language, and emotional impairments. These are being presented by administrators, teachers, parents, rehabilitation agencies, and researchers from around the world! Manufacturers of software, and adaptive and assistive devices will also be represented in the exhibit hall! (Only \$15.00 for a pass!) FATIC/TAM will also feature a Hands-On Assistive Technology Lab!

If you haven't registered, on-site registration is available during the conference, or you can call: 904-385-1790! Don't miss this wonderful opportunity! DREAMMS for Kids is presenting a session on "Selection of Special Needs Software" on Friday morning!! Hope To See You There !

## Technology Tip...

### Switch Access

*What is a switch, and how can it help your child?*

by Mamie Evans

Instructor and Technology Specialist, Paul B. Stephens ESC

#### What Are They?

A switch is an assistive technology device. (Please see cover story for a definition of these devices). Switches can be acquired commercially, can be homemade, or can be a modification of some other device or item. A switch is a device used to control a technical aid. The switch must be carefully selected to meet the specific abilities of the user. As the user's ability changes, the switch can then be modified or replaced.

#### How Can They Be Used?

When a switch is connected to a battery operated toy, radio, tape recorder, computer, or an augmentative speech device, it becomes a means of access to that device. Switches come in all shapes and sizes, and can be found in all major adaptive technology catalogs. How the individual will access the switch is important to keep in mind when selecting a switch. Placement of the switch may be near a finger, eyebrow, a foot or a hand. Look for the area of movement which is most consistent, and where the child can activate and release the switch easily.

#### Where Do You Put Them?

Switches can be placed on table tops, lap trays, on the floor, or any other appropriate location. The child can activate the switch by pressing, pulling on a string, moving a hand, or blinking an eye. If you are using a switch with a computer, you must have a switch interface device. These are available from most adaptive/assistive technology device catalogs. The switch interface device can be installed inside the computer or connected to an external port on the back of the computer, or possibly even into the keyboard port. The switch is then connected to the interface.

#### Applications...

Switches can also be connected to battery operated toys. To connect a switch, use a battery by-pass device available through adaptive/assistive technology device catalogs. Also, many catalogs sell toys which have already been adapted for switch use. Using a switch with a computer, toy, or other device can be rewarding for the child. The child begins to have some independence and control over his/her environment when choices can be made. Research available catalogs for appropriate switches and toys for your child and *Switch on to hours of fun an learning!*

Editor's Note: Next month's issue of *DIRECTIONS* will be providing more information on switches, their use, and their acquisition. Also, look for information on DREAMMS' Switch Building Kits available in the near future!

## DIRECTIONS

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Vendors - We welcome product news. Please include pricing and contact name with press releases.

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### Findings:

The findings that led to the submission of and ultimate passing of this law are listed in the next section.

1. During the past decade, there have been major advances in modem technology. Technology is now a powerful force in the lives of most residents of the United States.

2. For all individuals, technology can provide important tools for making the performance of tasks quicker and easier.

3. For some individuals with disabilities, assistive technology is a necessity that enables them to engage in or perform many tasks. The provision of assistive technology devices and assistive technology services enables some individuals with disabilities to:

- a) have greater control over their own lives
- b) participate in and contribute more fully to activities in their home, school and work environments, and in their communities
- c) interact to a greater extent with non-disabled individuals
- d) otherwise benefit from opportunities that are taken for granted by individuals who do not have disabilities.

4. There already exists a substantial number of assistive technology devices, including simple adaptations of existing equipment, that could significantly benefit, in all major life activities, individuals of all ages with disabilities. Such devices, including adaptations, could be used in programs and activities such as early intervention, education, rehabilitation and training, employment, residential living, independent living, recreation, and other aspects of daily living.

5. The use of assistive technology devices and services by individuals with disabilities can reduce the costs of the disabilities to society, individuals with disabilities, and families of individuals with disabilities by reducing expenditures associated with early intervention, education, rehabilitation, health care, transportation, telecommunication services, and other services required by individuals with disabilities.

6. Many individuals with disabilities do not have access to the assistive technology devices and assistive technology services that such individuals need in order to function in society commensurate with their abilities. States do not have comprehensive programs for making technology-related assistance to individuals with disabilities available. There is a lack of:

- resources to pay for such devices
- trained personnel to provide such devices and services
- information about the potential of technology available to individuals and families

-coordination among existing state human services programs and private agencies

-capacity of such programs to provide the necessary technology related assistance

7. There are insufficient incentives for the commercial pursuit of the application of technology devices to meet the needs of individuals with disabilities because of limited markets.

8. At the federal level, there is a lack of coordination among agencies that provide or pay for the provision of assistive technology services. Also, the Federal Government does not provide adequate assistance and information with respect to the use of assistive technology devices and assistive technology services to individuals with disabilities.

### Purposes:

The actual purpose of the act is threefold. These purposes are:

#### 1. To provide:

financial assistance to the States to help each State to develop and implement a consumer-responsive statewide program of technology-related assistance for individuals of all ages with disabilities. This assistance is designed to:

- a) increase awareness of the needs of individuals with disabilities for assistive technology devices and assistive technology services
- b) increase awareness of policies, practices, and procedures that facilitate or impede the availability or provision of assistive technology devices or assistive technology services
- c) increase the availability of and funding for the provision of assistive technology devices and assistive technology services for individuals with disabilities
- d) increase awareness and knowledge of the efficacy of assistive technology devices and services among individuals with disabilities
- e) increase the capacity of public and private entities to provide technology-related assistance, and to pay for assistive technology devices and assistive technology services
- f) increase coordination among State agencies and public and private entities that provide services
- g) increase the probability that individuals of all ages with disabilities will, to the extent appropriate, be able to secure and maintain possession of assistive technology devices as these individuals make the transition between services offered by

(Continued on page 5)

## We re Connected!

### Announcing the DREAMMS Electronic Forum Online Technology Tips for Special Needs Kids

- \* Sponsored by Sparrow Enterprises, Inc. of Tampa, FL
- \* Software Libraries, Messages, Forums
- \* MAC or PC Interface
- \* Logon today!! (Register as a DREAMMS member, and your membership is absolutely FREE!)
- \* A \$30.00 value!!
- \* HURRY! Call Today! We re waiting to hear from you..

### DREAMMS Forum on BizNet 813-971-0482

#### A Note from the Editor!

Dear Friends,

Well, its happened!! We're running out of paper before we run out of words! Sorry if this month's issue looks a little crowded! We'll be moving to 12 pages soon isn't it just so very exciting!?

I wanted to be sure to take a minute to remind you all to be sure to jump on to BizNet and see what we've got going on there! Besides the DREAMMS Forum, you can find all sorts of goodies relating to help with your computer (PC or Macintosh), classifieds, and messaging areas on topics like Financial Planning, Washington News, and a host of others really neat things! Be sure to download the TeleFinder software on your first visit! Instructions are pretty straightforward, and its a great interface!

FATIC is going to be great! Educational Technology Conferences are MEANT for teachers AND parents you know! Parents should definitely attend if they can and see what's new in the educational world! You'll be amazed at what your kids do in school!! (Although maybe there are some things that you'd be better off not knowing! <vbg>!) Until next month

Kindest Personal Regards,

Janet

## Product Notes...

### Assistive Technology Device Extrordinaire

**Multimedia Max** is a "free field" voice activated personal computer that controls telecommunication, electrical, and infrared devices, as well as any Microsoft Windows computer application. In addition to voice, **Max** can be controlled by touchscreen, mouse, or keyboard. Unlike other environmental control devices which are dedicated "boxes", **Max** is a fully functional multimedia computer, providing access to the growing number of multimedia applications, including online services such as CompuServe, America Online, and the Imagination Network. Max also provides direct speech to text dictation, allowing access to any windows based word processing program directly by voice.

Our staff had the pleasure of seeing **Max** in action recently at a school Technology Night. **Max** is truly an exceptional system that could prove beneficial to many individuals with varying exceptionalities. Please contact Multimedia Designs, Inc. at 813-786-3317 for more information.

### Financial Management for Disabled

Meeting the Challenge, Inc., (MTC) has developed a software program designed specifically to maximize independence for adults with developmental disabilities in money management. The product, called **MoneyCoach**, utilizes state-of-the-art multimedia technology to minimize the need for reading, writing, and math skills. The system features graphics, pictorial representations, audio instructions and feedback, on-screen text and touch screen technology to provide a rich environment for user interactions. MTC has termed this product line as 'CognitiveAssist Products', and employs the power of technology to simplify daily living tasks such as budgeting and checkbook usage, thus empowering an individual to attain higher levels of independence. Contact MTC at 1-800-864-4264 (Voice/TDD) for more information.

## Conference News...

February 28- March 3: ICTE Orlando '95, "Leadership for Creating Educational Change: Integrating the Power of Technology"; Orlando, FL. Contact Tom Sechrest, The U. of Texas at Austin, College of Education, 512-471-4080.

March 3 and 4: Utah Coalition for Educational Technology (UCET) 1995 Conference; West Jordan, UT. Contact Dale Porter, UCET, 801-586-2865

March 10- March 12: Abilities Expo; Tampa FL. Contact Expocon coordinator, 203-256-0915.

(Continued from page 3)

human service agencies or between settings of daily living

**2. To facilitate:**

- a) the identification of Federal policies that facilitate payment for assistive technology devices and assistive technology services for individuals with disabilities;
- b) the identification of Federal policies that impede such payment;
- c) the elimination of inappropriate barriers to such payment.

**3. To enhance the ability of the Federal Government to provide States with:**

- a) technical assistance, information, and training, and public awareness programs relating to the provision of assistive technology devices and assistive technology services;
- b) funding for model demonstration and innovation projects.

**What Does This Mean?**

The purposes of the Tech Act provide the criteria for States and agencies working through the State to use the Federal funding for:

- Research into new and innovative assistive technology devices
- Development and testing of these new assistive technology devices
- The creation of agencies, centers, and organizations that facilitate the use of assistive technology devices and provide assistive technology services.

As a parent, it's important and exciting for us to know that these agencies, (many will be listed in an upcoming issue of *DIRECTIONS*) are here to HELP US WITH THE NEEDS OF OUR CHILDREN! They are being funded by the federal government for that purpose, and will assist in the evaluation of our children, and help us to determine if an assistive technology device is available and appropriate for our children's specific needs.

*Next Issue: Adaptive Devices and Input/Output!*



*Call the DREAMMS Hotline  
With Your  
Technology Questions*

*813-781-7711*

# Software Review...

## Thinkin' Things I

## Edmark Corporation Windows Version

NOTE: Our staff had planned to review Thinkin' Things II for this issue. Unfortunately, after many long sessions with Edmark Technical Support, we were still unable to install Thinkin Things II to a level where all elements of it were operational.

Thinkin ' Things I is a collection that allows students to build early learning thinking skills that are necessary for future learning. A student can choose Oranga Banga or Toony Loon for building auditory (sound) discrimination, Feathered Friends for learning about patterns and differences, Fripples for observation skills, or Flying Spheres for analytical thinking from the graphical main menu. These segments help students to build critical thinking and memory skills that provide a solid foundation for future learning.

**Our Review:**



- Touch Window compatible on PC
- Language and reading is not required
- Screens are colorful and uncluttered
- Buttons (target areas) are large and clearly marked
- Skill level can be set to varying levels of difficulty



- Single Switch activation not supported
- Scanning not supported
- Problems with 256 color VGA compatibility

## Thanks to This Month's Sponsors

A special thank you to each one of you who have donated generously to the DREAMMS organization this month! Your contributions help to provide this newsletter and the services that we provide our special students and their parents. Remember, we couldn't do it without you!

**Tom & Suzann Zoltner**

# ON THE HIGHWAY

## Online Services

Well... another month and another on-line service to explore! What a great job I have!! Just spending the day on the information super highway.

This month we review America Online of Vienna, Virginia. After reviewing CompuServe last month, I was hoping for something more. Boy, did I find it! I used the same scoring criteria as last month; forum organization, ease of access, variety of topics, and quantity and quality of the information.

Let's see what I found AOL's organization and interface are the keys to their success. First, all of the information related to disabilities is organized under the disABILITIES forum. In addition, messaging, libraries, conferences, searching, and e-mail are all available right from within each forum.

The disABILITIES forum roughly breaks down into these major areas:

- Assistive Technology Forum
- Disability Message Center
- Software Library
- On-Line Chats
- Equal Access Cafe

### Inside Assistive Technology Forum: A+

This area contains a warehouse of information for parents and educators of special needs kids interested in assistive computer technology. The philosophy behind the area is the recognition and belief that computer technology can fundamentally change what it means to be disAbled. With proper access to adaptive technologies such as computers, speech synthesizers, software, and adaptive keyboards, disabled kids and adults are finding that they can participate more fully in all realms of society.

The forum contains 3 major areas: Assistive Technology Message Board, Software Library, and Reading Room. The Message board folders include alternate keyboards, alternate communications systems, State assistive technology programs, grants for the disabled, education for kids (IDEA), and wheelchair technologies. The S/W library includes Questions and Answers from Apple, Mac and PC shareware and freeware selections, switch operated hypercard stacks, and even

electronic books. The reading room contains an interesting selection of electronic documents that could prove very useful. They include Assistive Technology resource guides, Apple Disability Resources, Physical Disability Solutions, and learning and speech solutions.

### Inside disABILITIES Message Center: A

This area contains major messaging areas. Each has the general focus listed that is selectable from a main menu, and contains topics. A topic contains a series of messages entered by users. A nice feature is that the topics are created by users like you and me. You can create a topic area and then enter a message to start things off. Other users can respond directly to your message and others to theirs creating a permanent repository of messages relating to the original topic you create. This concept and implementation puts future topic areas in the hands of the users, not the administration, and thus providing unbounded conversation without censorship. You can be creative and create a topic that you would like to discuss and see where it takes you.

### Inside On-Line Chats: B+

This selection displays a document describing upcoming "live" mutual and self help group meetings and professional conferences. You should check this selection each time you log on to see if an upcoming conference might be of interest to you. Some conference titles include: *PC Pals Deaf Teen Chat*, *Multiple Sclerosis Self Help*, *Down Syndrome Group*, *Cerebral Palsy Self Help Group*, *Autism Self Help Group*, and the *Muscular Dystrophy Self Help Group*. These are live chats that give you an opportunity to communicate with others in a live group chatting session. Finally, If you would like to see other self help groups or conferences organized you can suggest topics or guest speakers for upcoming meetings by contacting Elin Silveous on-line.

### Inside Equal Access Cafe: B+

This area is a perpetual live chat. When you enter the area you will see a list of participants and can butt right in to the conversation at hand. It's really a lot of fun! Remember to check the On-Line Chats listing to see if a scheduled

## *America Online Scores an A -*

*By Chet Hosmer, DREAMMS Technical Director*

conference is in progress. You might rather be a part of a conversation going on there instead!

### **What does it cost?**

One of the many positive features of America Online is its simple straight forward billing system. The cost of AOL is just \$9.95 per month which gives you 5 hours of free connect time. After that, you pay only a flat \$2.95 per hour. No hidden costs, and no extra charges for forum access! These billing options are available by Assisive Technology, accessing BILLING on-line to investigate.

### **What Did Other Users Have to Say?**

We at DREAMMS posted our own topic area on AOL to solicit responses from AOL users that were utilizing the disABILITIES forum. Here are a couple responses:

Margaret Kleinpeter writes... "I am a DREAMMS reader and I really enjoy your newsletter. I even called you up and received an excellent answer on software for a student with TBI. I subscribe to AOL and CIS. I think AOL is the easier to use of the two, however I do like the way you can mark and unmark items of interest on CIS. All the special needs forums are extended service and you pay \$ 4.50 from the second you sign on. AOL allows 5 hours per month, and now only \$ 2.99 to sign-up. As far as the quality of the information, I think it depends on the quality of the user an the particular time..." (Margaret's prices may not be exactly correct. Please check on-line!)

Toni Solano writes... "...Most everyone I know in the field recommends AOL because most are using it, and life is too tough enough without having to go through mine-fields of computerese required from other services."

Finally, Jim Garth writes... "AOL has made it easy to communicate with other CP parents and information sources all over the country without any training. This is a phenomenal service! Thank you Apple and AOL."

### **In Summary:**

We found AOL to be better managed, organized, and priced than CompuServe. We also found a good depth of information, message areas, and libraries that were easily accessible from

both MAC and PC Windows interfaces. The only down side is that we found a frequent busy signal from the local access numbers, and sometimes had a hard time connecting! We seemed to have less of a problem during normal business hours than at night.

As always though, we feel that it is the people behind AOL that make it such a superb service! Even on the information super highway... that vacuous void that you can't even locate on a map... the people are what makes the difference. Who are these heroes of America Online?

Well I'm glad you asked! Let's start with Peter Green of Apple Computer. Peter began working at Apple at the age of 16 (no, that is not a miss print), when he joined the Product Development Group as an Associate Engineer. He has spent the last several years working on Apple's Worldwide Disability Solutions Group in a variety of different capacities. He is the co-author of "Independence Day: Designing Computer Solutions for Individuals with Disabilities". His previous writings include articles in Exceptional Parent Magazine, and National Geographic World magazines.

Next we have Elin V. Silveous, who has spent over 10 years conceptualizing, planning, developing, implementing, and evaluating consumer-oriented health information programs using a variety of communications media. Elin is president of Health ResponseAbility Systems, an organization devoted to empowering, educating, and supporting individuals in making more informed decisions about matters that affect health and well-being.

These folks manage and oversee the day today operation of AOL's disABILITIES forum, and they do a fabulous job! Thanks from all of us!

As a side note... After reviewing AOL, we've decided to become permanent subscribers of the service and intend to benefit from the information over the years to come. When on AOL you can reach us by sending a message to DREAMMS.

Well... So Long till next month when we'll take a look at America Online's access to the Internet... And remember... when surfing on the information superhighway, always remember to buckle up...

**Tidbits....**

**NationsBank Offer...**

NationsBank offers specialized loans for purchasing vehicles with adaptive equipment. They provide financing for 80% of the base cost of the vehicle and for 100% for the modifications or conversions. Terms are available for up to 120 months! If you need a vehicle with adaptive equipment, contact Marie T. Nash at NationsBank in Clearwater, Florida at 813-446-4086, or your local NationsBank branch.

**New Edmark Catalog...**

Edmark Corporation has announced the release of its 1995 Silver Anniversary Catalog for Students with Special Needs! Call them at 800-362-2890 for your free copy!

**The House that Love Built...**

Scott paper company will donate a portion of every Scott paper purchase to Ronald McDonald House. To help even more, clip the UPC symbols found on Scott products and mail them to your nearest Ronald McDonald House; Scot will make an additional donation for every UPC received by July 31, 1995.

**PTA Needs Input...**

With the reauthorization of IDEA, the National PTA is seeking comments and ideas from its members regarding special education improvements. Please contact your own local PTA representative, or send your comments and ideas along with the name of your PTA and your name and phone number to: National PTA, Special Education Comments, 2000 L. Street, N.W., Suite 600, Washington, DC 20036



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