

## **A look at Georgians using assistive technology for living, learning, working, and playing**

Nearly every American uses technology to make life easier. For people with disabilities, however, assistive technology is more than a luxury...it is an essential tool for independence in doing things. Assistive technology can be:

- a simple "low tech", low cost hand held magnifier
- home or vehicle modifications
- software and hardware products adapted for school, play or work
- ramps and widened doorways
- accessible playgrounds with adapted recreational equipment

An assistive technology device is any item, piece of equipment, or product that can increase, maintain, or improve the performance of people with disabilities.

An assistive technology service is one that directly helps a person with a disability select, obtain, use, or maintain an assistive technology device.

### **Who Needs Assistive Technology?**

An estimated 1,270,584 Georgians, nearly 27% of our population, have one or more disabilities. Of these, nearly 14% or 656,097 have severe disabilities requiring one or more kinds of assistive technology (LaPlante et al, Technology and Disabilities, vol. 6, pp.17 -28, 1997 and the 1990 Census Report). No public or private organization is equipped to handle the range of needs across all settings: homes, schools, transportation systems, communities.

### **The Tech Act**

Congress recognized the importance of assistive technology by enacting the Technology-Related Assistance for Individuals with Disabilities Act in 1988, (known as the Tech Act) and by amending it in 1994. President Clinton reapproved the need for the Assistive Technology Act on November 13, 1998. This law provides all states and territories with funds to address the needs for and barriers to securing assistive technology.

Since 1991, Tools for Life, the Georgia Assistive Technology Project, administered by the Georgia Division of Rehabilitation Services, Department of Human Resources, has received Tech Act funds to increase access to assistive technology devices and services through consistent, timely, and cost-effective strategies.

### **Our customers shape our services:**

- 14 public forums: 1990, 1993, 1994, 1995, 1996
- monthly customer telephone surveys
- input by Georgia's Advisory Council on Assistive Technology Resources
- evaluation of Tools for Life services
- participation with disability advocacy groups, public and private agencies and boards

### **Our Vision and Mission ~ Who We Are... What We Do.... Who We Serve**

#### **Vision**

Georgians with disabilities will have timely access to assistive technology devices and services so they can live, learn work and play independently in their own communities.

#### **Mission**

Tools for Life is a catalyst for sustainable public and private partnerships designed to increase access to appropriate assistive technology benefiting all Georgians.

## **Core Services**

Tools for Life provides five core services in response to customer needs:

- Information and referral, to help customers secure appropriate assistive technology devices and services
- Trial use and short-term loans of assistive technology at regional Technology Resource Centers so customers can "try before they buy" and make better purchasing decisions
- Training, to learn to use assistive technology, how to secure it, what laws say about it, its benefits and wide array of applications
- Technical Assistance, to create customer-friendly changes in policies, practices, procedures, and resources within and among agencies that pay for assistive technology devices and services; and to create private sources to secure assistive technology devices and services
- Advocacy, to assist customers overcome barriers in securing assistive technology

## **Short-Term Assistive Technology Loans at Regional Technology Resource Centers**

Tools for Life Regional Technology Resource Centers loaned 3,239 assistive technology devices from July, 1995 - December, 1997. As a direct result of the technology loan service:

- many users have secured appropriate, permanent devices from public or private sources
- the Roosevelt Warm Springs Institute for Rehabilitation has invested \$100,000 for short-term assistive technology loans for use at the Institute.

We need to invest in more technology for short-term loan services operated by regional Technology Resource Centers: our pilot efforts show this system works. It provides a cost-effective way for Georgians with disabilities and service providers to see what technology works or does not work. Tools for Life customers can now apply for services electronically on the <http://www.gatfl.org> web site from anywhere in the state.

## **Recycled Computers**

Many Georgians with disabilities call for assistance to find a used computer. It costs an average of only \$250.00 to recycle one computer. Without access to computer technology, people with disabilities will be left behind in the information age. Computers provide a gateway to the Internet, a way to eliminate some of the barriers encountered by Georgians with disabilities. Computers can provide opportunities to share and learn from peers, to gather information, to shop and to get around some transportation barriers.

In response to customer requests, Tools for Life has recycled 350 computers since 1993. In February, 1998, Tools for Life and Friends of Disabled Adults and Children (FODAC), established a partnership called ReBoot to expand and strengthen this service. Statewide partners now include FODAC, Touch the Future, Inc., four Centers for Independent Living, DeKalb Technical Institute, and regional Tools for Life Technology Resource Centers. Together, our partners are creating a statewide public and private network to deploy recycled computers for use as assistive technology.

## **Revolving Guaranteed Loan Fund**

Many states have established a revolving guaranteed loan service that gives people with disabilities a chance to purchase their own technology. This type of service allows people with disabilities and parents of children with disabilities living on fixed, low incomes, opportunities to purchase assistive technology. Tools for Life envisions a public/private partnership under a new federal credit union that would provide low interest loans to members for assistive technology. A minimum of 1.5 million dollars is needed to establish a service that will guarantee loans against default, provide flexible terms such as extended payback, and a low interest rate at 2 percent below the nationally advertised prime rate.

## **Tools for Life Web Site**

Tools for Life operates a web site, <http://www.gatfl.org>. It features an application for services, Want Ads to sell and exchange assistive technology, Tools for Life publications, and links to other disability and advocacy organizations.

## **Advocacy Regarding State and Federal Laws**

Tools for Life participated with key advocates in passing two consumer protection laws in Georgia, the Assistive Technology Warranty Act and the Motorized Wheelchair Warranty Act of 1993. Tools for Life routinely informs Georgians about these laws which have helped consumers recoup losses associated with inappropriate or malfunctioning assistive technology and motorized wheelchairs.

## **Learning Disabilities and Technology**

An estimated 15% Georgians have learning disabilities, in many cases, undetected (Learning Disability Association of Georgia, 1998). An estimated 20 - 25% of Georgians are functionally illiterate, reading at or below a 4<sup>th</sup> grade level. An estimated 40 - 60 % of these individuals may have specific learning disabilities. Tools for Life is collaborating with LD Adults of Georgia and the Governor's Council on Developmental Disabilities to teach self-advocacy skills to adults with learning disabilities. Empowered, they can secure assistive technology and foster positive changes. Tools for Life uses its guide, Learning Disabilities and Technology, an Emerging Way to Touch the Future (1997 and 1999), as one tool to help Georgia's educators, service providers and adults with learning disabilities secure appropriate assistive technology.

## **Touch the Future Expos and Distance Learning Teleconferences**

Over 3,000 Georgians with disabilities, their circles of support and vendors have participated in five Touch the Future Expos and three distance learning teleconferences. These events brought advocates, parents, service providers, and vendors together to see, hear, share, and experience state-of-the-art assistive technology and solutions.

Tools for Life has provided significant training, technical assistance and awareness to focus attention on assistive technology at over 1,040 events since 1991. Over 122,000 Georgians have participated in training to increase their knowledge and skills regarding:

- Advocacy and Funding Strategies
- ADA and other state and federal laws
- Learning disabilities, strategies, and tools
- Specific Assistive Technology
- Technology Resources in Georgia
- Technology for different ages and functional needs

## **Satisfaction of Tools for Life Customers**

- Received Information They Requested: 85%
- Used Information to Get a Device: 48%
- Shared Information with Another Person: 77%

\*Data based on random follow up calls of 1,117 Tools for Life users between 1993 and 1997.

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## **Voices of Georgians who need assistive technology**

**Wesley Bailey, 8 years old , Ellenwood**

I am in the second grade at Kilpatrick Elementary School. I have spina bifida. I can go over curbs in my wheelchair and I play baseball with my friends. I play on the Lake City Challengers team. I am going to use the recycled computer to type my name and print it, write notes to teachers, "I love you, Miss Chris" ...and I will write birthday cards for my friends and play games. I would cry if I didn't have this computer and my hospital bed. I would be sad without them. I was sad without my computer and now I am happy and excited.

Hospital beds can prevent some parents of children with disabilities from injuring their backs.

### **Wesley's Mother, Sherry Bailey**

I am a single parent without health insurance. Lifting Wesley was hurting my back - I had to lean over to help him with his daily routine - dressing and personal hygiene - and I needed a hospital bed that tilted up and down. There were times I couldn't pick him up because my back hurt so badly. Medicaid refused to buy a hospital bed because Wesley didn't need it...I needed it for my back. Friends of Disabled Adults and Children (FODAC) gave Wesley a hospital bed when he was seven, and we are picking up the recycled computer for him today. He uses a manual wheelchair provided by Medicaid. I truly don't know what I would have done without that hospital bed. I don't know if I could have survived it. I have no medical insurance. Medicaid gives you a wheelchair to last three to five years. Thanks to FODAC, if it needs to be replaced or repaired before then, Wesley will still have a wheelchair. It helps me to deal with a crisis to know that I can call FODAC - they will do anything in their power to help me, no questions asked. And Wesley would not ever have a computer without Tools for Life's ReBoot computer recycling services.

Wesley received his recycled computer and software games on the day these photographs were taken. Each person who receives a ReBoot computer must complete at least 20 hours of volunteer service.

### **Harold Ridley, 48, Jackson**

I got hurt in 1969 and went to Roosevelt Warm Springs Institute for Rehabilitation and stayed there a year. I figured my life was over. Later, I got motivated and I went to work as a radio dispatcher for the sheriff in Jackson, Georgia. Later, I left and went to Gordon College in 1971. I had a lot of difficulty getting around in my wheelchair before ADA (the Americans with Disabilities Act). I was working and going to school at the same time. I wanted a computer to help me keep track of my personal affairs. My next door neighbor told me about Friends of Disabled Adults and Children, and their computer recycling and used durable medical equipment services. I called and they put me on the waiting list for a computer. After a month, they called to tell me to come get my used 386 computer.

I will use this computer to manage my personal affairs and to keep up with technology. I also use a manual and an electric wheelchair to get around. I need a van with a lift because I cannot pull and lift anymore to get in and out of a car easily. My cousin has to drive me to and from the doctor and wherever else I have to go....there is no public transportation in Jackson. Accessible transportation is essential for many Georgians with disabilities who want to work.

In order for people with disabilities to get jobs, rehabilitation counselors need to work closely with their clients, and there needs to be transportation - adaptive transportation - so we can get to schools and jobs. More recycled computers would benefit a lot of people with disabilities to start businesses, keep up with their medical records which they have a lot of, and their homes for emergencies. A friend of mine has his whole house wired for his alarms, call alert, TV, radio, stereo, and air conditioning. I have never seen anything like it! He can work it from his bed.

Mr. Ridley would like to own a control unit (ECU). With this device, he could operate all home electronics from one unit. ECUs can reduce the needs for personal assistance services for some people. Mr. Ridley received a recycled computer on the day this photograph was taken.

### **Brittany Johnson, 6 years old -Covington**

Brittany was born with spina bifida and hydrocephalus. She is moving into the full classroom next fall at Fiquette Elementary School. She loves to play baseball and cook in her play kitchen. Kids with disabilities need adapted toys, accessible playgrounds and sports equipment to have fun with other kids. Brittany uses a manual wheelchair to get around and is learning to get in and out of it independently. She also uses a parapodium so she

can stand in her play kitchen and her art set. She loves her adapted tricycle. She saw tricycles in the store and wanted to ride with her cousins. Brittany wanted very much to be a part of the group. So, Tech-Able, Inc., a Tools for Life Technology Resource Center, gave her a tricycle adapted with a car seat and hand-operated pedals. Brittany's parents: "Brittany is so excited to ride her tricycle and is more positive about herself now. She says "I can do this!" It has made her more independent and it's great exercise for her. The Governor and legislators should visit places like Tech-Able to see kids using assistive technology. Seeing their excitement and the things they can do would make a difference. Then they should go back a second day and see kids without this technology!"

### **Mikey Lucas, 2 ½ years old - Rome**

Mikey has Down Syndrome. When he was 6 months old, I began to work at home as a medical transcriptionist, part-time at first and now 9 hours a day in between changing his diapers and chasing him. He started walking at 17 months old even though the doctors told me he would not walk until he was 24 or 26 months old. He has received physical, occupational and speech therapy at Floyd Medical Center and participates in Babies Can't Wait, an early intervention service responsible for getting him into therapy at 3 months old. The therapists at Floyd referred me to Lekotek in November, 1998. We come to Lekotek (located at Floyd Medical Center/supported in part by Tools for Life), once a month to meet with Jo Orr, the Lekotek leader, to pick out toys to help him develop his fine motor skills. Jo shows me ways to play with him using toys that help him develop skills. Mikey gets so much out of Lekotek. There are toys here we can't find that he especially needs to learn to turn knobs and buttons. In occupational therapy, the therapists were not able to get him to achieve this. Lekotek allows

me to take special toys home so I can work with him in his customary environment. I can get more out of him than the therapists because I am his mother and I can work with him every day.

### **Garden Lakes Adapted Playground , Rome , Melissa Freeman**

I work with 100 non-ambulatory children served at Northwest Georgia Regional Hospital. I became interested in adapted playgrounds because there was no where for me or these parents to take these kids other than the mall. I have two boys and they love the playground. I can't imagine not having a playground to take them to play. I talked with Bob Saylor, Director of the Recreational Department in Rome in 1994, to find out what he could do. He told me they didn't have a budget to buy recreational equipment. Communities raise the money needed for playground equipment. He told me to look at Ridge Ferry Playground - he thought it was accessible because it has a ramp. I explained that the ramp was too steep and the playground equipment could not be used by kids in wheelchairs. There were no walkways in the park, no accessible sandbox tables, or rainbow arches to hold balls. He told me to form a group to raise funds for equipment and then his department would install and maintain it. He set up an account for our fund-raising efforts.

Parents, teachers, businessmen were a part of our group, the Handicapped Accessible Playground Committee. The Jaycees paid for folders that contained information about the playground equipment and many letters of support. At our first fund raiser, we made \$2,800, an amount Wal-Mart matched by an additional \$2,000. All of the funds - 40K for adapted playground equipment and accessible cement trails - came from private, community-supported projects and contributions.

Deana Wallace, the Tools for Life Technology Resource Coordinator at the Sarah Hightower Library helped by putting us in contact with the Center for Rehabilitation Technology (CRT) at Georgia Tech and Dick Wahl, another Tools for Life Coordinator who was familiar with accessible playground developed by Connecting Point's Tools for Life Center in Sylvester also helped. Dick and I visited CRT to gather information about various types of playground equipment.

The Garden Lakes playground is unique because it promotes inclusion: kids with and without disabilities play together. There are swings for kids who need an adapted swing seat next to regular swings. There are raised sand tables for kids using wheelchairs right in the middle of the sand play area - everyone, all the kids, can play together. The playground has a wide cement trail around and throughout it so all kids can get around.

Without this playground, they would not be able to play with other children in a playground setting....play is one of the most important activities of all children.

Working with children who have developmental disabilities is impossible without adapted playgrounds! Now we have wonderfully accessible outdoor facilities. There should be state and community appropriations for adaptive recreational equipment in all playgrounds.

### **Greg Sharpe, 33 years old , Reidsville**

I was hurt 16 years ago ... I am a C-3/4 quadriplegic. For the first 8 years I did nothing - I spent 8 years in a manual chair. I entered the Roosevelt Warm Springs Institute for Rehabilitation in March of 1992 and left in June of 1992. Later, I returned to go through rehabilitation and received a powered wheelchair then. When I got my electric wheelchair, my life changed because I had more independence and control of myself and the things I wanted to do... it was like walking. It was a turning point. I put my life back together. I started thinking about how I could give something back to society. After staying home for 8 years, I had no purpose in life. Once you become a quad you think no one wants you. I went through a 6 weeks independent living course at Roosevelt Warm Springs Institute - the whole world opened up again. I could go shopping and buy things for other people by myself.

Tools for Life at the Roosevelt Warm Springs Institute worked with independent living there to show me the adaptive devices quads could use... like the computer. I saw Gene Spalding, another quad, using a voice activated computer with Dragon Dictate software. That was the high point of my life. I could talk to the computer to turn on the lights and TV - that gave me more confidence because I had even more control. I came back home and returned to school to get my GED - all my work was on the computer. Tools for Life gave me a Dragon Dictate system to try out and use for 4 or 5 months while my vocational rehabilitation counselor ordered one for me. I use my Dragon Dictate and a computer to do my homework. I am in school at Southern Technical Institute majoring in computer information systems. I have three more quarters to be a computer information systems specialist. I would like to help other quads learn how to work with computers and voice input technology so their lives would be easier. Without technology, I would be depressed - I couldn't even turn around to look at someone! It would probably be a living hell for me to live without a powered wheelchair. I don't like to depend on people a whole lot and I would be afraid I'd spend a whole lot of time in bed rather than ask someone to push me around. Without my Dragon Dictate system I would not be able to do my homework by myself - it's a lot faster than having to dictate to a person who writes for you. Disabilities in small rural areas are a challenge! There are very few support agencies. I don't have a van and transportation is very difficult. Assistive technology is very essential if you want to go to school. There has to be a way to be able to use assistive technology in every classroom. I do not have a laptop, but if I had one hooked up to a Dragon System, I could take my own notes instead of using a note taker paid \$6.00 an hour four and a half days a week! The budgets for assistive technology at technical education schools and the Division of Rehabilitation Services are very limited. More funds should be allocated for assistive technology for people with disabilities because it makes the critical difference between dependence and independence for many of us, particularly in rural areas.

Adapted computers are essential for people with disabilities to compete at school and work.

### **Julie Louise Roe , Hephzibah**

I have been deaf since birth and soon, will be working as a peer counselor at Walton Options Independent Living Center. I took a computer course here and today I am picking up a ReBoot recycled computer. I use a flashing light to answer the phone and a vibrating alarm clock to wake up. Someday I want to have a baby and I will use flashing alarms to hear it cry and move. I use captioning to watch the television and I rent captioned videos. I can use e-mail on my computer to talk to other people, both deaf and hearing. Both the TDD and my computer will be essential to my work at Walton Options. Many people who are deaf do not have computers for e-mail communication - computers would help communication for deaf people. If I didn't have these other devices, I would have to ask people to help me more, sometimes I still do, like when I do not have an interpreter with me. Without these items, I would feel left out of it and frightened - it would be very hard. I'd have to always depend on someone for help.

We really need captioning and interpreters, and things like TDDs (telecommunication devices), flashing lights, and vibrating alarms so that deaf people can be more independent. Make more computers and the Internet available to deaf people so we can talk with each other and with others.

Walton Options for Independent Living operates one of Georgia's regional Tools for Life Technology Resource Centers.

### **John Wiley, 61 years old and Susan Gantrell, his mother-in-law, Jenkinsburg**

I have diabetes. I'd had 3 or 4 falls and hurt the stump on my right leg. I had a hard time drying and fell. I had to call 911 as my blood sugar was low - I fainted in the bathtub. The medics had a time getting me out of the house down the steps without a ramp. My wife is a cook at a day care center and she got all upset worrying about me falling. The rescue people told me to talk to my doctor in Augusta so he could find someone to build a ramp. He knew about Walton Options and their ramp building project. They built the ramp last December.

I can use the bathroom now and with the ramp, I can get in and out of my home without help. The ramp makes it easy and safe for me and Susan, my 89 year old mother-in-law, to get in and out of the house. The handrails keep me from falling and injuring myself.

We need things like this for people who have the problems I got getting in and out of the house. I am on Medicare - it doesn't cover this ramp. Many seniors need ramps and simple home modifications like bathtub grab bars to prevent serious, high cost injuries.

### **Judith Winters , Augusta**

I am a middle aged woman who uses a sip and puff power wheelchair. I live by myself and work out of my home. I am active with several disability advocacy organizations, and recently won First Runner Up at the Miss Wheelchair Georgia Pageant.

Recently, Walton Options for Independent Living, via their Operation Independence Program, installed an automatic door opener for my apartment, and provided me with a rolling shower chair. I have a roll-in shower in my apartment but could not access it because I didn't have a chair that would work for me. Having the automatic door opener means that I can now enter and exit my apartment independently. It allows me the freedom to come and go as I please. Before the automatic door opener was installed, I had to wait for someone to open the door for me. It was frustrating to have to wait outside my door waiting for someone to come and help me. I also feel safer being inside my apartment knowing that I can exit on my own should I need to in an emergency. Being able to take a shower instead of a bed bath also makes me feel better about myself. How I look is important to me.

My life without assistive technology would be nothing. I would not be able to do anything on my own. Assistive technology helps me move about in my wheelchair, access a computer, answer the telephone, access the television, perform self-care tasks, work, and enter/exit my apartment.

I want our public officials to know that assistive technology is a vital part of safe, independent living for persons with disabilities, and has a big impact on quality of life.

Assistive technology like environmental control systems and call alert devices can reduce needs for full-time personal care for some people.

### **Sandy Chiu, 15 years old , Conyers**

My name is Sandy Chiu. I have cerebral palsy. I am a 15 year old ninth grader at Heritage High School in Conyers.

I enjoy high school (made all As) and particularly English. Just recently I was able to join a baseball team in the Miracle League. It's a lot of fun. One of my life's ambitions and dreams is continuing to work and help Tech-Able in any way they need me. You see, Tech-Able was started by my mother (the late Lynn Chiu) in 1989, to help kids with disabilities.

Tech-Able operates one of Georgia's seven Tools for Life Technology Resource Centers .

There are a couple of ways I use technology. I use a keyguard fabricated by Tech-Able on my keyboard so I don't hit more than one key at a time. I have a motorized gate walker that has a hydraulic life that raises me up from a sitting position into a standing position. I also use a computer, an electric wheelchair, and a grabber to get things. Without assistive technology, I don't think I could get around easily and do the things that I do with technology. It

would be much more difficult to get in a car and use other things such as ramps, lifts on automobiles. I think my life would be kind of boring and useless without assistive technology. I would tell the government to make everywhere I go easier for me to get around and to make sure there are enough handicap parking spots that are easy to use a lift with. I would make public places easier for me to visit so that I can have fun without getting frustrated.

In 1988, some co-workers and I were dining at a local restaurant for lunch and going over business strategies. The whole time we were there, I never thought about being able to drive myself to or from work. In all honesty, I never thought about driving period. I guess I have always taken such luxuries for granted. Even driving home from work that afternoon, my thoughts were not on my driving, but on how my weekend was going to turn out. The last thing I remembered later that night was diving off the diving board.

I woke up late one night realizing that something had gone very wrong. I was in a hospital bed not able to move. I soon realized that none of me could move, not even my head. I had broken my neck in my swimming pool. A few days later my parents and a large man with a white hospital coat were hovering over me talking about the fact that I would be paralyzed for life and my chance of ever working or driving again was inconsiderable. Well, that was eleven years ago this coming June.

I now drive my own van to and from work. I still cannot use my hands and still cannot walk but that never stopped me from being creative and trying new ways to do things. My dream of driving again came true after working with some local agencies. The Social Security Administration, the Georgia Division of Rehabilitation Services, and Walton Options for Independent Living all helped me realize my dream. The Plan for Achieving Self-Support (PASS) comes from Social Security. The PASS Plan allows an individual with a disability set aside income and/or resources for a specified period of time for a work goal. My Rehabilitation Counselor at the Georgia Division of Rehabilitation Services was instrumental in helping me write up a PASS Plan.

It took me one year after getting the PASS written for Social Security to approve it. It took them six months to come up with this approval, but then recanted. I reapplied, and after another two months, I was denied a second time. If I was going to win this war, I was going to fight one last battle in court. After hiring an attorney, taking my case to a Social Security judge, and then waiting an additional six weeks, a final decision was made in my favor.

But it was not over yet! I still had to buy a van and find a local supplier to modify the van and place within the van technology that would allow me to drive. I did find a supplier and waited almost seven months before getting the van back in my driveway.