

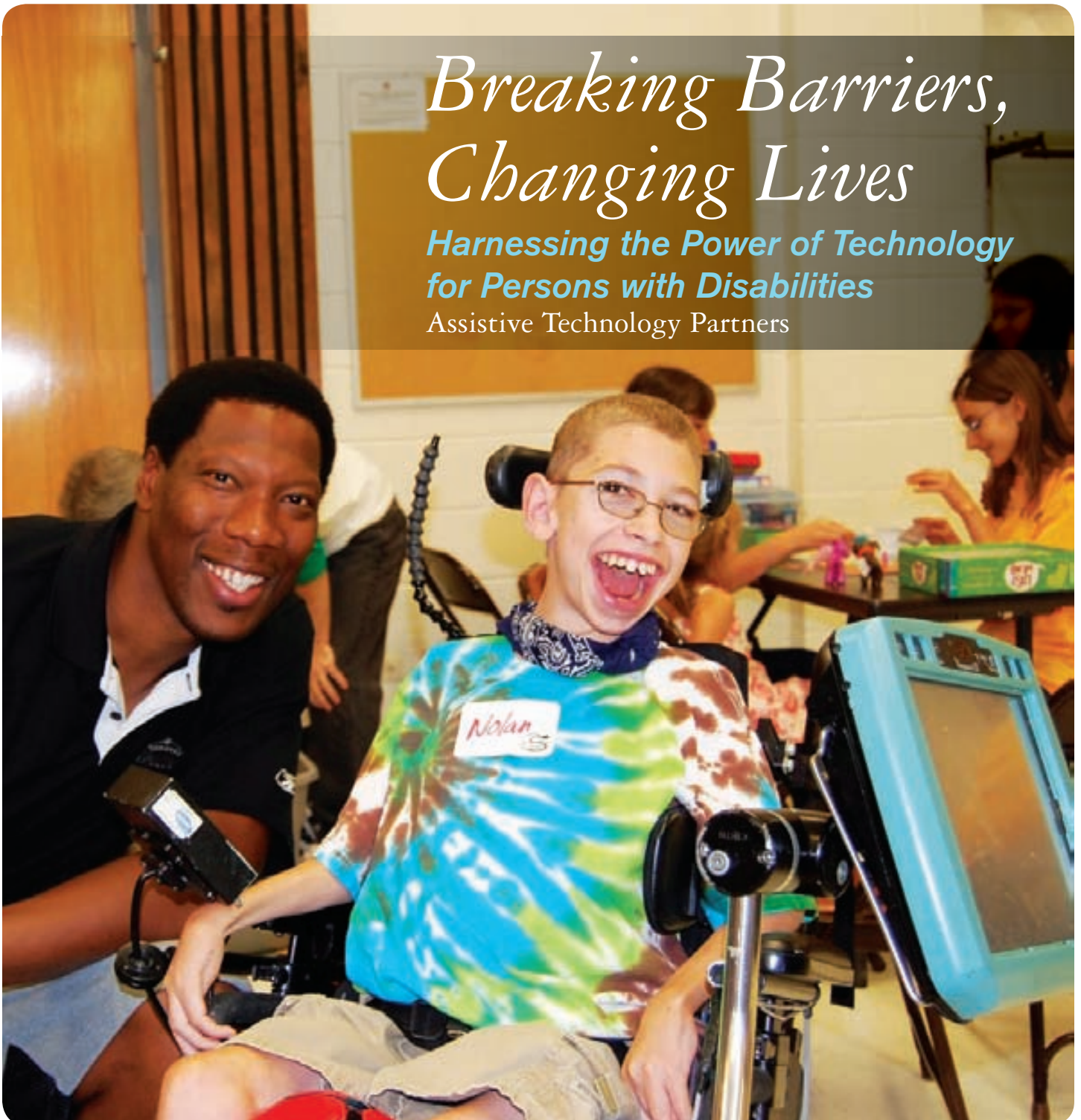
Creating Futures

University of Colorado *Anschutz Medical Campus*

Breaking Barriers, Changing Lives

*Harnessing the Power of Technology
for Persons with Disabilities*

Assistive Technology Partners





Barbara Schoenamsguber with her son Crescencio.

Crescencio Flores

Crescencio Flores is a very bright 8-year-old boy with spinal cord ischemic injury and arthrogryposis, which means that his joints are fixed and turned inward. He cannot use his hands or walk, so he uses a wheelchair that he drives using head movements.

He lives with his mother, father and three brothers. One of his brothers has cerebral palsy and also uses a wheelchair. Crescencio has poor breathing capacity and an inability to cough and uses supplemental oxygen at night.

Crescencio recently took part in Assistive Technology Partners' AbleGames, where children with severe disabilities played computer and other kid-friendly games adapted for their use. AbleGames gave Crescencio and others like him the chance to play and compete just like any other kid.

He was able to activate switches attached to the headrest on his manual wheelchair to navigate a computer screen and play video basketball and a number of other computer games. His instructor, Brian Burne, MSM, OTR, will continue to work with him to explore these skills.

"Before, he couldn't play any games, he could just watch," says Crescencio's mother, Barbara. "So if he has the equipment, he can do whatever he wants... It has made his attitude change toward life in general because before he would always say, 'I'm never going to be able to do this or that,' but now he knows he can."



Dr. Kevin Brady and his wife Debbie.

Kevin Brady

Kevin Brady, MD, is an ophthalmologist with more than 25 years of experience. In addition to his roles as associate clinical professor at the University of Colorado and director of ophthalmology at Denver Health, he is a devoted husband and father. About eight years ago, he was diagnosed with advancing Amyotrophic Lateral Sclerosis (ALS), or Lou Gehrig's disease.

During the course of his disease, Dr. Brady has embraced every assistive technology device available to him. No longer ambulatory, he currently uses a power wheelchair, which he first drove using his hand and a joystick. Now, because he is unable to use his hands, he drives the wheelchair using a "sip and puff" technique. He can still speak (but relies upon a machine to breathe for him) and uses voice recognition software to access the computer and the Internet. As his ALS progresses further, he will lose his ability to speak. In anticipation of this, Dr. Brady has been learning "eye gaze typing" software that will allow him to communicate when the only movement left to him is that of his eyes.

"Assistive technologies have become so sophisticated that they play a crucial role in helping people cope with these diseases," says Dr. Brady. "They are *as important* as or *more important* than some of the strict medical treatments."

Tammy Burton

Tammy Burton is an inspirational 31-year-old mother of two who has cerebral palsy. Though she had used a power wheelchair for much of her life to get around outside the home, she was able to walk on her knees inside the home and type on a keyboard while seated on the floor. Early in 2009, she underwent two hip replacement surgeries, which rendered her dependent on her wheelchair for every aspect of her life—inside and outside her home. She became very uncomfortable in her wheelchair, and was no longer able to use her computer keyboard.

She came to Assistive Technology Partners for help with her wheelchair seating, mobility and computer access needs. She worked with Senior Instructor Kelly Waugh, PT, MAPT, ATP, to explore different options for her wheelchair positioning and driving, and for accessing her computer from her wheelchair. Now, she has regained her independence.



Therapist Kelly Waugh (left) works with Tammy Burton to try different methods of controlling a power wheelchair. Tammy and Kelly spent a total of eight hours together determining the custom specifications of a new power wheelchair that will work for her and her busy lifestyle as a mother of two young children.

These stories are just a few examples of the ways in which Assistive Technology Partners improves the lives of thousands of individuals, and their families, each year.

Help Change the Lives of People with Disabilities

Assistive Technology Partners (ATP) is a leader in the relatively new field of *assistive technology*—the union of technology and human abilities to improve the lives of people with all kinds of disabilities.

Imagine...

- A 4-year-old child taking his “first steps” with a customized wheelchair that he drives by shifting the position of his head.
- A young woman taking an online college course thanks to a computer that allows her to access the Internet and enables her to type using eye movements.
- A man in the early stages of Alzheimer’s disease cooking his own meal with the aid of an interactive prompter that guides him through steps he may have forgotten.

All this and much more has already happened at Assistive Technology Partners.

We connect persons with disabilities with the skills and technology they need to achieve their full potential in life at home, work, school and play.

ATP is a program of the University of Colorado Anschutz Medical Campus, and for 14 years has provided comprehensive assistive technology services to people with disabilities and impacted more than 500,000 people worldwide. ATP is the largest such resource in the world with 27 faculty and staff, many of whom have international reputations. Recently, Executive Director Cathy Bodine was asked to share her expertise at a World Health Organization meeting in Geneva, Switzerland.



Today, we are on the cusp of even greater impact, thanks to an ambitious plan and a commitment to increased donor investment.

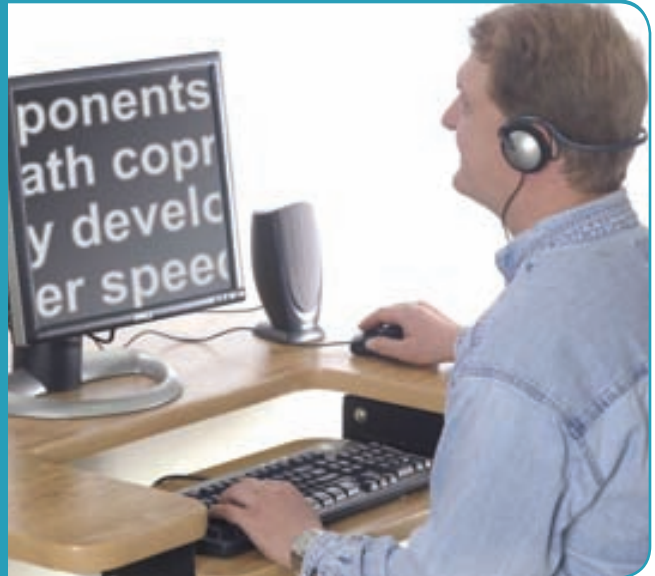
With your help, we will create a model center that will enable us to serve more people and train the assistive technology experts of the future. We will also advance the field of assistive technology through research and development of technologies that create new possibilities for people with disabilities and their families.

Everything we do is driven by our foundational goal of profoundly improving the lives of people with disabilities and their families.

“We not only believe in what we are doing but we know through our experience and our research, that technology makes a difference in the lives of people with disabilities. That’s what fuels our energy. That’s what gets us out of bed in the morning.”

Cathy Bodine, PhD, CCC-SLP
Associate Professor, University of Colorado
Anschutz Medical Campus

The Problem: A Growing Population Faces Multiple Challenges



In 2005, the U.S. Census found that the number of Americans with a disability reached 54.4 million, which is roughly equal to the combined total populations of California and Florida. Among those with a disability, 35 million, or 12 percent of the population, were classified as having a severe disability.

Though these numbers may seem surprisingly large, we all know people living with a disability. It may be a neighbor who returned from the Iraq war with a cognitive injury. It may be a friend who suffered a traumatic injury and was left paralyzed. Or it may even be a husband or wife who has been diagnosed with a debilitating degenerative disease.

Consider that 1 in 4 Americans will have a disability during their life that impacts their ability to function. 1 in 6 adults have a hearing loss, 1 in 10 has a vision impairment and 1 in 14 is unable to walk a quarter mile. These numbers will only grow as we look ahead to what will be the largest geriatric population in our nation's history: the Baby Boomers.

The needs that people with disabilities face do not stop with the physical, sensory or cognitive challenges they may have. People with disabilities are likely to find themselves living in poverty, socially excluded—with poor access to education and employment, and with limited access to rehabilitation and other medical services specific to their needs.

More than 80 percent of individuals who come to Assistive Technology Partners live in poverty and have

minimal or no third-party insurance coverage for the services they need. A disability often bankrupts a family and just one trauma can max out a family's lifetime insurance coverage.

And though assistive technology can make a profound difference in someone's ability to communicate, hold a job or even care for their children, AT devices are often not covered by insurance or government programs because they are not deemed "medically necessary."



The Solution: Assistive Technology Partners



Assistive Technology Partners (ATP) is already *the* leader in its field. Established under a federal grant from the U.S. Department of Education's National Institute on Disability and Rehabilitation Research, today we are part of the Department of Physical Medicine and Rehabilitation, School of Medicine, University of Colorado Anschutz Medical Campus.

ATP is unique because of its:

- **Comprehensive Approach**
We serve all types of patients using the complete range of technology options.
- **Research Focus**
We are advancing the field of assistive technology by establishing definitive outcomes for various technologies and using those findings to benefit our own patients.

- **Teamwork**
A team of clinical, research and engineering experts and therapists develop synergistic solutions for every patient's individual problem.
- **Cutting-Edge Technology**
We are inventors and adaptors, keeping up with technology changes and innovating many of them ourselves.

We have three clinics in Denver, Colorado Springs and Grand Junction—and a worldwide network of partners, including large technology firms and multiple partner universities.

The clinics of Assistive Technology Partners offer:

- Augmentative and Alternative Communication
- Computer Access
- Electronic Aids for Daily Living (EADL)
- Learning/Cognition Aids
- Nighttime Positioning
- Wheelchair Seating and Mobility
- Worksite Accommodations and Ergonomics
- Children's Play Adaptations



Passion Leads to Excellence: Cathy Bodine

Cathy Bodine, PhD, CCC-SLP, is executive director of Assistive Technology Partners and an associate professor in the School of Medicine. She is a world-renowned assistive technology expert and consultant for national and international committees and organizations such as the U.S. Department of Education and the World Health Organization. She recently earned the *Denver Business Journal's* Outstanding Women in Business Award in the category of health care.

We leverage our resources by taking advantage of all that CU has to offer, including the Technology Transfer Office, the Colorado Intellectual & Developmental Disabilities Research Center and the university's world-class bioengineering and genetics programs.

ATP has been recognized by the U.S. Department of Education, the National Institute on Disability Rehabilitation Research, the National Institutes of Health, the Colorado Department of Education and other major funding sources through grant awards.

At the core of service provision is the belief that our clients are valued partners throughout the process, whether they are consumers, family members, caregivers,

Technology that Creates Access and Promotes Independence

Assistive technology is the adaptation and creation of technology that enables people with all kinds of disabilities (physical, cognitive, sensory and others) to perform tasks otherwise impossible or very difficult.

Over the years, professionals who work to achieve universal accessibility have created more than 32,000 devices—some as simple as an ergonomic adjustment to change the height of a chair, others as complex as an interactive telecare system that helps a person stay safely in their home.

At Assistive Technology Partners, we address the full spectrum of needs of individuals with disabilities—from the most common to the most rare, and from pediatric to geriatric.

We provide a unique integration of capabilities and services for persons with disabilities through our CORE areas: Clinical Services, Outreach and Information Services, Research and Engineering and Education.

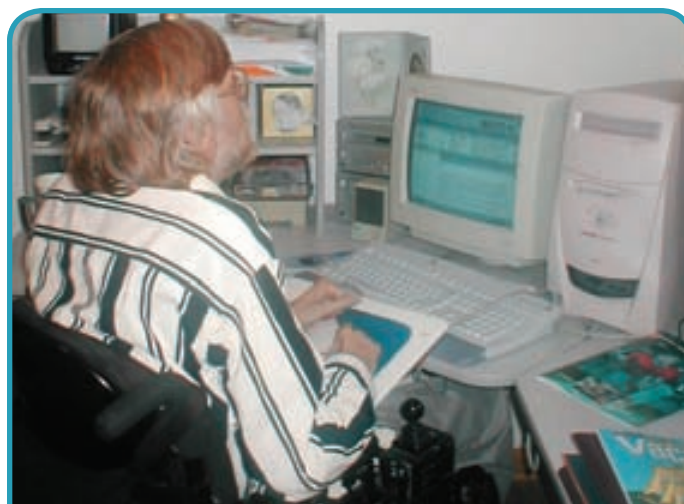
Everybody benefits when appropriate assistive technology is available. When people achieve independence, the quality of their lives and the lives of their family members increases and many health care complications and hospitalizations are prevented.

Reducing family burden increases family stability and helps maintain economic independence.

education professionals, rehabilitation counselors or health professionals. By establishing dynamic and interactive relationships with our constituencies, we deliver comprehensive services across all environments.

Because of our reputation, and the fact that we are specialists in assistive technologies, we often receive the most challenging cases, referred from hospitals here in Colorado and across the nation.

There is tremendous potential in the field of assistive technology, and we're the people to move it forward.



Simple Ideas that Change Lives

Mouse Filter Tames Jittery Hands

Approximately 10 million Americans have essential tremors. In collaboration with IBM, Assistive Technology Partners invented a special mouse to address this problem. The mouse has a microprocessor that takes the motion data that normally goes to the computer and applies an algorithm to filter out all the high-frequency motion caused by tremors, keeping the cursor movements smooth on the computer. In this day and age, the ability to effectively use a mouse and computer affects everything from a person's ability to hold a job, attend school, communicate and much more.

Your Investment Supports a **High-Impact Strategy**



With your help, Assistive Technology Partners of the University of Colorado Anschutz Medical Campus will implement an ambitious five-year plan to establish the very future of assistive technology and change the lives of people with disabilities everywhere.

Your Investment Will Enable Us To:

Increase ACCESS to Technology by Expanding Clinical Care

Donor investment will enable us to run all three of our clinics at a fully functioning schedule—five days a week, eight hours a day. This will require additional clinicians and added space. We have already received international recognition; now we need to make sure that no one gets turned away, because everyone deserves good health care.

A dedicated funding stream to support individuals with severe disabilities who are unable to pay would serve a critical need. It would enable persons with disabilities to change their lives dramatically, ensuring access to school, employment and recreational activities.

Create WORKPLACE OPPORTUNITIES in Partnership with Employers

Persons with disabilities can be an essential part of our nation's workforce, and Assistive Technology Partners is committed to engaging community and business leaders

to create greater accessibility to tap this vital resource and enhance the economic vitality of citizens with disabilities. Additional funding will provide a team of consultants to offer state-of-the-art technical assistance and training to businesses and other employers.

Reach More People Through OUTREACH and DISSEMINATION

Donor investment will support our efforts to provide additional resources, such as state-of-the-art communications and computer technology to reach out to patients and providers while giving us the capacity to offer services throughout Colorado.

For example, we offer free Learning Labs every month with rotating topics to introduce nonspeaking people, visually impaired and others to new technologies that can improve their functionality. And to raise awareness of assistive technology, we disseminate thousands of print materials every year.

Make Colorado SCHOOLS the Best in the Country for Children with Disabilities

For more than 12 years, we have been working with the Colorado Department of Education to provide ongoing training to professionals in schools for assistive technology. We offer seminars, distance education and a loan library of assistive devices. We have already trained 750 teachers, allied health professionals and others on the application of assistive technologies for students.

Our loan bank uses the interlibrary loan system to distribute 470 assistive devices to schools across Colorado every week. We share \$1.6 million worth of equipment with Colorado schools. The program has been so successful that Alaska and Ireland are now modeling our loan program.

Donor investment will support additional staff to develop more training and offer more technical support for school-based educators/clinicians statewide and similar services for those who care for children ages 0-5. It will also support publication of research findings, methods and models for assistive technology intervention for children and youth up to 21 years of age. This will help other researchers, clinicians and families to understand how technology can help individuals with disabilities.

Advance the Field of Assistive Technology through RESEARCH

We are in a position to push the field toward more outcomes research that measures the impact of assistive technology devices and services for children and adults with disabilities. This has the potential to make a real difference for funding through third-party medical reimbursements.

In addition, our Rehabilitation Engineering Research Center for the Advancement of Cognitive Technologies is the first such effort in the country, employing animated agents and prompting systems to help people with traumatic brain injury and other cognitive disorders accomplish everyday tasks.

Additional investment will support a high-level research team, data-collection tools and the output of frequent publications, which will measure the impact of assistive technology and develop evidence-based clinical assessment tools and interventions to impact local, state and national policy regulations and legislation.

Implement the World's Most Powerful RESEARCH and ENGINEERING Team for Assistive Devices

ATP is a proven leader in numerous development projects, and participates in these projects from the initial design phase, through individualized testing, to final technology transfer for commercialization.

Additional research and engineering investment will leverage our enhanced research and clinical capacity to position us as the recognized leader in assistive technology engineering. A fully functioning engineering team with a state-of-the-art engineering laboratory will provide a platform for establishing industry quality standards (Good Housekeeping Seal of Approval for assistive technology devices).

Prepare the NEXT GENERATION of Assistive Technology Professionals

We are inspiring the best and brightest minds to make a difference in the lives of others. Since 1998, we have served 478 graduate students who have completed a minimum of 18 credit hours, 60 of whom have completed advanced doctoral coursework.

The next and most vital step is to create one of the first comprehensive, crossdisciplinary Masters and PhD programs in assistive technology, right here at University of Colorado Anschutz Medical Campus. Investment will support adequate faculty for students, available clinical and research opportunities for students, updated classrooms and the use of state-of-the-art communication tools for distance education.





Donors with a Passion: Sara and Bill Caile



It's difficult to imagine better supporters and advocates of the University of Colorado than Sara (A&S '68) and Bill Caile (EN '65). Sara's roots extend back to the very beginning of CU: Her great-grandmother was one of the early students who lived in Old Main on the original Boulder campus. Her grandmother, grandfather, mother and father were all CU graduates. And her grandfather, father, husband Bill and son all received their degrees from CU-Boulder's College of Engineering and Applied Science. Not surprisingly, they are generous donors to the college.

The Cailes have another passion, however. One to which they dedicate countless hours and significant financial resources: Assistive Technology Partners.

"I used to say that ATP is where science hits the road with disabilities," Bill says. "They do research, they develop new technologies, they do education. But the thing that makes them different is that they also have a clinic where they can test all these technologies. The help they provide for people with disabilities is just incredible."

"I would love to see a \$10 to \$15 million endowment that generates annual income to fund ATP in perpetuity. I think that would be the best gift for Colorado and Colorado residents."

Bill Caile

Retired president and CEO of Trautman Shreve

Sara says, "I tell my friends how wonderful it is to be a volunteer [with ATP]... and to watch the changes you can help direct and be a part of."

The Cailes have a vision for Assistive Technology Partners that includes an endowment, ensuring that underserved individuals with disabilities receive essential services at ATP. "I would love to see a \$10 to \$15 million endowment that generates annual income to fund ATP in perpetuity. I think that would be the best gift for Colorado and Colorado residents," Bill says.

To bring this vision to life, Bill is the chair of the ATP Advisory Board and plans to dedicate the next several years to raising funds for the program.

Asked what fuels his passion, he says, "The technologies are here, the patients with disabilities are here. ATP fills the gap and brings those people and those technologies together. Any contribution of money will allow an individual or a number of individuals to have an experience and exposure to ATP, and lead a better and a fuller life."

A Culture of Giving Back: GE Johnson Construction Company



*Mike Harms and Jim Johnson of
GE Johnson Construction Company.*

A lot of companies talk about the importance of corporate social responsibility. But in the case of GE Johnson Construction Company, corporate leaders want to make sure the company actually walks the talk.

“GE Johnson Construction has had a long culture, from Gil Johnson, our founder, of being very philanthropic in the community in which we serve, and that spans all of Colorado,” says Mike Harms, vice president. “Our goal is to get many of our employees involved in fund raising efforts, serving on different boards, so it’s not just a few who are spending time in philanthropic efforts... we are truly trying to push it into the culture of the company.”

CEO Jim Johnson says it is a passion of his to support institutions of higher learning, which includes the University of Colorado overall and Assistive Technology Partners in particular.

In fact, Mike Harms is chairing the organizing committee for Déjà Vu Rendezvous, an event that brings together leaders in the construction industry and raises money for Assistive Technology Partners.

“Our industry’s involvement with Assistive Technology Partners allows us to directly impact people’s lives,” says Harms. “There are a lot of things we really take for granted in our daily lives. Being able to get up in the morning and get to work and make that cup of coffee. Go to the grocery store when you need to. When you visit ATP you realize that there are a lot of people out there who don’t have such an easy time in life. They have difficulties with all of those aspects that we all take for granted. To see how ATP benefits people is truly why the industry has embraced ATP through the Déjà Vu Rendezvous event.”

Johnson says he believes it is important not only for his company to be involved but also for its leaders to encourage their peers in construction to get involved and see what ATP can accomplish with the dollars they raise.

“Our employees take great pride knowing that our organization is known as a very philanthropic organization,” says Johnson.

“ATP changes lives because we give people the tools they need to do whatever it is they want to do.”

Cathy Bodine, PhD, CCC-SLP
Associate Professor, University of Colorado
Anschutz Medical Campus



To learn about the many ways you can make a gift contact:

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You Can Help Break Barriers and Change Lives

There is tremendous momentum in assistive technology and we're leading the way. We must be bold and ambitious to maximize this opportunity. We're the only place that can do it.

Everyone benefits when individuals with disabilities can achieve their full potential. Our exciting work will help people with disabilities:

- improve their quality of life
- avoid further illness
- preserve family stability
- increase access to education and life-changing technologies
- maintain productivity within society and economic independence

Every person with a disability deserves full access to their potential. Your investment assures they get it.

All gifts should be payable to the University of Colorado Foundation, specifying the appropriate fund.