Breaking Ground Issue 99: November 2019 Technology Issue

Tennessee Council on Developmental Disabilities

On the cover: This is a special Breaking Ground issue on technology. There is one photo on the cover. It shows a close-up of a woman working in a Taco Bell restaurant. She is wearing an apron over a gray sweatshirt. The apron has a badge with a Taco Bell company logo and the words, “now serving breakfast.” The employee also has a smart phone strapped to her right arm, and she is wearing large, pink headphones over her ears. She wears glasses, and has a huge smile. In the background you can see several customer tables with empty chairs, and the large, front windows.

# Introduction to special issue on technology:

Dear readers, we are living in a time of huge technology changes. That’s not news to you. Life looks very different today than it did even 10 years ago, thanks to the smart phones in our pockets and the computer power built into nearly every appliance and device we use.

But what does all this change mean for people with disabilities? Why does technology often come up as such an important topic for the disability community?

This technology-themed issue of Breaking Ground will offer some answers to those questions.

You’ll read stories of Tennesseans with disabilities using technology to help them work and live their daily lives. You’ll read about the huge potential we saw in action at the Enabling Technology model home, funded by the Department of Intellectual and Developmental Disabilities. You’ll hear about ways provider agencies are using technology to support independence for the people they serve.

These stories show how new technology can give people with disabilities more control over their own lives. As technology becomes more a part of daily life for all of us, it is also shrinking the access gap for people with disabilities.

The world is changing at an increasing pace. In another 10 years, life will again look very different for all of us. As unpredictable as the future may be, I am sure of one thing: People with disabilities will continue to find ways to use new technology to improve access to their homes, work places, and communities. And the Council will continue to share those ideas and stories with you!

Sincerely,

Wanda Willis, Executive Director

Image description: Headshot of Wanda, who is dressed in black and wearing tortoise shell glasses.

Footer: Learn more about the Tennessee Council on Developmental Disabilities.

615.532.6615; [www.tn.gov/cdd](http://www.tn.gov/cdd); www.facebook.com/TNCouncilonDD; Tnddc@tn.gov;

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There are four photos on this page. The first is a picture of a young woman wearing a gold floral dress and holding a technology device, which accompanies an article about a smart technology home. You can see equipment in a kitchen behind her. The second photo shows a young man comfortably sitting in a big chair, and working on his laptop. It accompanies an article about using technology to feel safe and calm. The third photo is a group shot of several youth and staff posing in two rows, which accompanies an article on a youth in transition training. The fourth and last photo shows a man with white hair and a black shirt standing up and doing some kind of training. You can see the back of a youth who is attending the training. This photo accompanies an article paying tribute to retiring Council staff member, Ned Andrew Solomon.

Article One:

# Living in a Smart Home

by Ned Andrew Solomon, Director of Partners in Policymaking Leadership Institute, Tennessee Council on Developmental Disabilities

This article contains multiple photos. The first photo is a repeat of the one on the Table of Contents page, with the woman in the gold floral dress holding a technology device. The second photo shows a bedroom where a device sits on a nightstand for communication to and from family, friends, and support staff. The third photo shows the front of a silver refrigerator. In the door is a touchscreen. This “smart” refrigerator touchscreen can activate doors, play music, communicate with people not home, and even inventory the

fridge contents. The fourth photo shows a white device sitting on a gray granite kitchen counter. This is a programmable medication dispenser, which alerts the person who lives

here about when it’s time to take meds. The alerts increase in intensity until the meds are dispensed. The fifth photo shows a hallway leading to the back door of a house. In the ceiling is a light, which is currently red, but can change colors. For a homeowner who is deaf, alternating ceiling lights throughout the house can alert inhabitants to many different kinds of important information. The sixth photo shows several white technology devices that are attached to each other with cords, clustered on a gray granite kitchen counter. This collection of equipment serves as a kind of home base, providing remote communication and access to various parts of the house, and to out-of-the-home individuals. The last two photos in the article show cameras installed on the outside of a home’s front and back doors. The cameras alert the homeowner to visitors to the house – wanted or unwanted – and have speakers which enable the homeowner to communicate with these visitors before allowing, or refusing, access.

The article begins here: When my Council colleague, Mildred Sparkman, and I quietly walked up to the back door of the Harrington House on Stewarts Ferry Pike, the house already knew we were there. In a gentle and courteous voice, the house spoke to us and invited us inside. Mildred and I entered, a little cautiously – was this a prank, or a perilous scene in a horror movie?

Neither, fortunately. It was just Kate Adams, Enabling Tech Champion for the Department of Intellectual and Developmental Disabilities (DIDD), keying in commands to her iPad from where she was standing in the kitchen. Our approach to the house was no secret – because the house had alerted Kate that there were “people at the back door.” That message, plus the image from a camera positioned above the back door, told her all she needed to know.

Welcome to DIDD’s Enabling Tech Tour, and welcome to the 21st Century in supports for individuals with disabilities. Kate works out of this “smart home,” which is filled with new technology, installed to “enable” someone to live more independently. It is also an effort by state departments and provider agencies across the country to deal with a desperate shortage and extreme turnover of staff who provide supports to people with develop-mental disabilities.

This matches perfectly with the “SimplyHome” mission. SimplyHome is a company that designs and installs technology to help care for those with disabilities and the aging. From its brochure, SimplyHome strives to “empower individuals while addressing the concerns of caregivers and family members.”

Entire smart house systems can be customized to fit an individual’s specific needs and desires. It can be changed or updated as needs change, or as technology progresses. As part of the process of incorporating technology as a means of support, DIDD schedules three planning and preparation meetings with the individual, family members, support staff, and tech experts.

The system is also responsive to those who are concerned about a person’s privacy being compromised. Cameras are only placed in appropriate areas, and the home owner or occupant can decide how much access people can have remotely. Your mom calls late at night or too often and intrudes on your personal time? You can disconnect her call. You need help with something? Someone can be summoned 24/7. If you’re doing fine and don’t need anything, you are in control.

Most of the “smart” technology in this home was not developed for a disability-specific market, which helps to make it affordable. It is a response to a demand by your average consumer who wants to equip her home and life with these modernizing capabilities and conveniences. Many of the products were created by companies like Google, Amazon, and Microsoft. Of course, we’ve been moving in this direction for years: no time to make coffee in the morning? Set a timer the night before and wake up to the smell of fresh brew!

So, let’s look around. The kitchen’s a great place to start. There’s a smart refrigerator that has a large touch screen on the outside of the door, which can help you manage your calendar and communications with remote family members or support staff, while listening to music. You can access your smart devices and appliances from the screen; set lights; talk to someone at your front or back door; even get an alert when your laundry is done. Three internal cameras let you see what’s inside your fridge from a smartphone, in case you went to the store and forgot to make a list of needed items.

There’s a “smart” microwave, too. There’s an induction stove which cooks food with special cookware that only heats the food, not the cooking surfaces, preventing burns. There’s a medication dispenser that sends out just the required dosage, and emits warnings if the meds have not been taken at their scheduled times.

Beyond the kitchen, the house is installed with “smart” locks, for those who have trouble keeping track of their keys, or have physical limitations for opening and closing doors. It can also tell you, remotely, if you’ve left a door unlocked or ajar. There are Alexa-type units in all the major rooms, upstairs and downstairs, for communication, information, setting up deliveries, and even conversation. There are sensors that turn lights on or off. There are lights in the ceiling that can be programmed to provide different alerts to a homeowner who cannot hear, by changing colors or flashing. There are motion detectors, and even a sensor that can let the occupant or his support staff know there’s water on the bathroom floor, to avoid a bad fall.

But what if the power goes out? “We discuss this in the planning process before technology is ever put into a home,” said Kate. “A detailed plan is made to address the following: Who will be alerted? How will they be alerted? How will they respond? How quickly will the response occur? We try to prepare for these things on the front end to avoid troubles on the back end.”

I have only touched the surface of what’s possible through technology to ensure independence, safety, and privacy. In fact, I have only touched the surface of what’s actually installed in this smart Harrington House! To learn more about DIDD’s Enabling Technology program, visit <https://www.tn.gov/didd/for-consumers/enabling-technology.html>. To talk with Kate Adams or to schedule a tour of Harrington House, call 615-626-0455 or email kate.adams@tn.gov. For a “smart” home tour in Greeneville, contact Milton Neuenschwander at 865-549-7831 or [milton.neuenschwander@tn.gov](mailto:milton.neuenschwander@tn.gov). End of Article One.

Article Two:

Aira, A visual interpreter for the blind

by James Brown, Transportation Program Supervisor for the Tennessee Department of Transportation, and Partners in Policymaking 2009-10 Graduate

This article contains one photo. It is a picture of article author James Brown standing in front of a closet door with his black assistant dog, Vantis. James is very professionally dressed in a gray business suit, and he is pulling a blue suitcase on wheels. His other hand holds his dog’s harness.

The article begins here: Being a blind person can certainly come with a unique set of challenges. Technology is often seen as the use of science to solve a specific problem. That’s why, when I was headed to Lake Tahoe for my annual, week-long cross-country ski trip in January of 2018, I was excited to try out some recently-acquired new technology called Aira. Knowing there would be a brief layover in Phoenix, I knew I would have the perfect testing ground to evaluate this hot, new, adaptive technology all my blind friends had been raving about for months.

Successful traveling while visually impaired is all about preparation, so I first had to ask myself a few basic questions. How much time would I have to get to my connecting flight to Reno? Would there be enough time for me to take my guide dog, Vantis, to the airport relief area and grab some lunch before boarding? These are all crucial questions to ask, since I prefer to travel through airports without any assistance.

Doing some Internet research before traveling, I figured that Vantis and I had approximately 40 minutes between landing and boarding our second leg of the trip. It seemed reasonable to travel from gate to gate if lunch and the dog relief areas weren’t too far out of the way to make the connection. As we touched down in Phoenix, I put on the Google Glasses Aira provided, placed one AirPod in my left ear, made sure the Google Glass was connected via Bluetooth to the Aira app on my iPhone, and prepared to exit the plane. Finding the “call an agent” button on the Aira app was easy, so I double tapped it and waited for someone to pick up on the other end.

A gentleman answered the video call promptly and said, “Hello, James, my name is Mark. How can I help you?” I told Mark that I was in the Phoenix airport and had to board my connecting flight in 40 minutes. He quickly responded, telling me he was pulling up the map of the airport. Meanwhile, I pulled out my backpack and carry-on from the overhead bin and began to exit the plane.

On the way out, I picked up some information from the flight attendant by asking her which gate we were at, and also explained my objectives to Mark. He told me that the dog relief area in the airport was a good distance away, but there were moving sidewalks and it shouldn’t take long at all. Plus, it wasn’t the opposite direction from my connecting flight. That was an important piece of information.

Mark then told me he was viewing my GPS location on the airport map on one screen and watching the view from my Google Glass on the other screen. His first instructions were to turn right coming out of the jetway. Then I was to walk about 100 yards to arrive at the first of four moving sidewalks.

Vantis swiftly led me on and off the four moving sidewalks. Mark told me to turn right, walk about 50 feet, and the dog relief door would be on the left. While my puppy did his business, I noticed my iPhone was quickly going to die if I continued to use GPS while streaming video at the same time. Guess I shouldn’t have streamed all those episodes of Stranger Things on the plane!

That was when I told Mark that I was going to have to let him go, but if he could tell me first if there was a place to eat nearby, and then give me directions to my gate. He told me that if I could hear a crowd of people at 10:00, that was a Wendy’s. Also, if we went back the way we came from the plane, got on two moving sidewalks and took a right, we’d almost be at our gate.

From there, the rest of the trip was a piece of cake. I was at my gate with a Wendy’s bag in hand and six minutes to spare before boarding. My only disappointment on the trip was the casino telling me I couldn’t play blackjack with Aira because they were afraid someone may be counting cards on the other end of the video, but I guess you can’t win them all!

Since then, Aira has changed my life in too many ways to enumerate in one Breaking Ground article. Without a doubt, the greatest challenge to being blind is the lack of access to the written word. Aira allows me to have a reader with me at all times. It has smashed that barrier. When I am trying to finish a task at work on the computer that has 10 steps, and there is that one step that I cannot complete on my own because of lack of accessibility, I no longer have to wait for someone to come and help me out. An Aira agent can remotely control my computer and have me on my way in no time at all. I can’t wait to see what the future holds for blind people and this new emerging piece of technology.

For more information about Aira, visit aira.io. End of Article Two.

Article Three:

# More Independence at Work for Anita through Technology

by Nicholas Filarelli, Program Director, Core Services of Northeast TN

This article contains three photos. The first photo is a repeat of the picture on the magazine’s Table of Contents page, which shows a woman working at Taco Bell. The second photo shows the same woman, Anita, posing with four of her co-workers at Taco Bell. They are standing next to a table that is filled with birthday presents and colorful cupcakes and a birthday cake. They are celebrating Anita’s birthday, and are all smiling. The third photo shows Anita paying for items she is buying in a department store. She is counting out dollar bills while the check-out person waits patiently. The caption reads, “Anita moves through her daily activities with as much independence as possible.”

The article begins here: Each weekday morning, Anita can be found patiently waiting in the Taco Bell lobby for her shift to begin. She wears a pair of pink headphones connected wirelessly to a smart phone that is attached to her arm. She is highly punctual and would never clock-in before her scheduled shift.

At exactly 11 a.m., Anita receives a notification through the headphones: “It is time to clock-in.” Anita dismisses the reminder with the tap of a finger and makes her way towards the computer. A few minutes later, the app reminds her that it’s time to begin cleaning the ladies bathroom. She gathers her supplies and begins the daily routine of attending to the cleanliness of the restaurant.

Anita was in her early 50s when she got her first job. In the years since, it has become a large part of her identity and a great source of personal pride. She has become an integral part of the team, a valued worker who is greatly missed when she is absent. Her smiling face and commitment to the job have made her a favorite of customers and coworkers alike. Managers note that the windows sparkle whenever Anita is on the job. On her birthday, she was even treated to a surprise party complete with cake, decorations, and, of course, presents. She is truly appreciated in this role.

Anita is proud of her job, but she is especially proud of the level of independence with which she is able to perform it. Like most of us, she takes her work ethic seriously, and doesn’t enjoy being micromanaged. Through the use of Enabling Technology, Anita is able to complete her job with very little job coach intervention. This has created not only a happier employee (which we didn’t think was possible!), but also a better relationship between Anita and her support staff.

At 12:00, the app alerts Anita that it’s time for lunch. She dismisses the reminder, clocks out, and enjoys her break. At 12:30, it reminds her to clock back in and begin cleaning the lobby windows. Anita is eager to stay on schedule and is much more comfortable taking reminders from an app than from a job coach. She competes with the clock to stay on or ahead of schedule.

The consistency of the program gives Anita a sense of order and security that she thrives on. In the past, when staff would intervene to help Anita stay on task, it was a source of irritation. Now, the phone and app are merely tools that Anita uses to complete her job, rather than a nagging nuisance.

The program, “Endeavor 3” by AbleLink Technologies, is simple, user-friendly, and can be easily programmed by someone with little technical ability. Therefore, the job coach is able to customize the schedule to meet the needs of Anita’s changing job and evolving duties. It can even be programmed with pictures and detailed instructions for more complex tasks.

In addition to her vocational technology, Anita has gained independence in her home through technology from Night Owl Support Systems.

For the first time in her life, she is able to spend time alone in her own home. Between the hours of 11 p.m. and 7 a.m., Anita can easily access support when she needs it, but has privacy and independence when she does not. With the push of a button, she can quickly request assistance. In the event of smoke detection or an emergency, remote support staff receive an alert, call Anita to see if everything’s ok, and then dispatch local staff or call 911, should the need arise. This gives Anita the ability to feel safe in her home, while also enjoying the peace and quiet of the apartment that she works so hard to afford.

This is only the beginning of a journey towards a more self-directed life. Anita hopes to soon be able to work without any job coach assistance, utilizing technology and the natural supports of her friends and co-workers. She aspires to live as independently as possible, and to create the life for herself that she has always envisioned. End of Article Three.

Article Four:

# In Search of a Calm, Familiar Place, through Technology

by Ned Andrew Solomon, Director of Partners in Policymaking Leadership Institute, Tennessee Council on Developmental Disabilities

This article contains three photos. One is a repeat of the photo described on the Table of Contents page, with a young man sitting comfortably in a big chair with his laptop. The caption reads, “A 21-year-old Bernie still relies on technology for inner peace and comfort.” The next photo shows a very young version of the same person, in a yellow shirt, sitting in a chair with his laptop. The caption reads, “Bernie finds calm in a noisy living room with guests.” The third and last photo shows a very young version of Bernie, lying down on a blue blanket on a green lawn. He has his laptop propped up on one of his knees. The caption reads, “Sometimes being outside is the best escape, as long as technology

comes along.”

The article begins here: One of my earliest memories of my stepson, Bernie Lynette, was him sitting in his pajamas, staring straight into his computer screen on Christmas Day, 2009, his back to the rest of the world. We were at my parents-in-law’s home in Sevierville, Tennessee. It was crowded and noisy, and the living room and kitchen where we all gathered in proximity to Bernie was a bustle of activity. Food and coffee were being made; wrapped gifts were being placed into position; relatives from several cities and states were chatting about current events and memories. As important parts of the family tradition occurred throughout the day, my wife, Gina, would coax Bernie to come join us. But when it got to be too much, and he needed some respite, he would return to the sanctuary of his computer.

As director of the Council’s Partners in Policymaking program and Youth Leadership Forums, I had had a good bit of experience with adults and youth with autism. I had also been privy to the stories of countless parents describing the behaviors and challenges and gifts of their children on the spectrum. But those experiences were based on occasional encounters. None of them, and no class I could take or book I could read, could fully prepare me for being a 24/7/365 stepfather and co-caregiver to Bernie.

At 62, I must confess, I am only now getting better at some of this stuff. Although Gina, with “broken record” calmness, has gently hammered into my hard head over the years that I need to be more patient and understanding of Bernie’s challenges and behaviors, and more aware, respectful, and proud of his skills and talents, it can take some time for these lessons to sink in. It hasn’t been easy for me, and consequently, it hasn’t been easy for Bernie. As the adult in this equation, I have not always demonstrated maturity, when I simply didn’t get why Bernie was acting, and reacting, in a particular way.

I certainly didn’t get it during Christmas 2009. Wasn’t it rude for Bernie to be tuning everyone out, just plugged into his electronics? Aren’t people going to be insulted, and think we are lousy parents?

But Bernie wasn’t being rude. Bernie was simply surviving. He was doing what he could to get through this loud and busy occasion the best he knew how. He was, wisely and compassionately, retreating into the zone where he could focus on something familiar. Into something that he was exceptionally good at. Into something that didn’t put uncomfortable and confusing demands on him. Into that place where anxiety wouldn’t get the better of him.

He knew what to expect from his time on the computer. He was in control of his environment. And, truth be told? He really wasn’t missing much.

Bernie is 21 now. He is a computer whiz. He can take apart and put together a car, and most anything else that intrigues him. He has a business making art objects on his 3D printer. He is co-writing long-format fan fiction with someone on the Internet whom he has not met in person.

He is still, constantly, virtually every waking hour, plugged into a device. He carries it with him, like an appendage. His reasons are pretty much the same as they were for his 11-year-old self: technology is the zone where it’s calm, where’s he’s competent, where there are no demands, and where it’s familiar.

I know that Bernie is far from alone in this. We know many children and adults with autism, and many of them retreat into this calming electronics zone, to reduce, or at least manage, their anxiety. Several companies have come to the realization that individuals with autism can be perfect candidates for certain technology jobs. Many are brilliant, and able to focus for hours, or days, on a task or problem. (Bernie describes himself as a “finisher” - he will work on a challenge until it’s completed. Want to cause him unnecessary anxiety? Pull him away from that unfinished task.)

My stepson’s life and well-being have been saved by technology in another way. Bernie has a written expression disability, and his handwriting and his spelling leave a lot to be desired. Bernie used to joke that Microsoft’s spell check would just give up when trying to review something he had composed. But now, thanks to speech-to-text and word prediction programs, Bernie can write beautiful, perfect communications – and a lengthy fan fiction! He has always been smart enough to recognize when something is spelled or grammatically wrong – he just lacked the ability to fix it.

So yes, Bernie lives a lot of his day plugged in. It enables him to get from day to day. It gets him up in the morning. It keeps him from “losing it” when the world gets to be too much, as it often does. It allows him to communicate more effectively with his family, his friends, and a co-writer in some other part of the e-universe. Someday it will be how he makes his living.

And thankfully, for the Solomon/Lynette homefront, his stepfather is finally getting it. End of Article Four.

Article Five:

# Growing a Business through Technology

by Jennifer Cunningham, OTR/L, Occupational Therapist and Director of Therapeutic Services; and Lindsey Wilkerson, Assistive Technology Specialist, STAR Center, Inc.

This article contains two photos. The first is of a middle-aged man, Jeff, sitting at a computer, typing on a keyboard. The caption reads: “Jeff uses accessibility software and voice technology to conduct business on his laptop.” The second photo shows Jeff in a big, green field, posing in front of two flatbed trailers that can be attached to the backs of cars or trucks.

The article begins here: When thinking of technology, most people consider how it enables them to stay connected with family and friends, makes their lives simpler, or even makes a job task easier. We all use technology in our lives, but imagine for a minute what life would be like without it.

Jeff’s vision began to decline when he was in high school, and it made participating in the regular education curriculum difficult. He was not provided with many supports to overcome his barriers with academics, and was merely passed through to graduation. When asked what he thought life would look like after graduation, Jeff replied, “I thought I would be a tradesperson. I wanted to build things.”

However, after receiving his diagnosis, Jeff knew he would need to look for other options. He spent the next years working odd jobs with his father and for a couple of years away from his family in sheltered employment.

At the age of 29, Jeff was referred by his Vocational Rehabilitation (VR) counselor to STAR Center for services. Without even knowing the letters on the computer keyboard, Jeff was unaware of the opportunities Assistive Technology would offer him in the future.

Shortly after his referral to STAR Center, Jeff made a connection with a local businessman and began buying and selling flatbed trailers. In the early days, swap-and-shop on the local radio and the buy-sell-trade flyer in his rural area were his primary means of conducting business. “It felt good to sell my first trailer,” he said. “I had no doubt I could do it, but selling that first trailer was confirmation for me.”

As his company, Green’s Equipment Sales, grew, Jeff’s VR Counselor referred him back to STAR Center for help with his self-employment plan. Jeff was given a workplace evaluation to learn how technology could aid him in further growing his business. Jeff was introduced to the computer and a variety of Assistive Technology devices to improve his efficiency and independence with his business. Gradually, he learned to use a money reader, a digital camera, and voice-recorder-to-screen-reader technology. He began learning to type and gaining basic computer skills while also working hard to acquire the skills needed to use screen reader technology to access the computer and the programs he needed.

With the assistance of VR through his self-employment plan, Jeff was able to obtain the equipment needed to expand his business into a fully-online operation. Jeff has returned to STAR Center to learn new skills and evolve his business as technology has advanced over the past 15 years. He now uses text-to-speech and voice input features of a smartphone to check email, make business calls, and send/receive texts. Jeff’s trailer business is now operated primarily online via Craigslist and Facebook Marketplace. With those websites, Jeff is able to sell approximately 60 trailers each year to buyers from as far away as Colorado, Ohio, and North Carolina.

During times that he doesn’t have an active VR case, Jeff is able to receive technical assistance and device demonstrations through the Tennessee Technology Access Program (TTAP) at STAR Center. TTAP is a statewide program to help individuals with disabilities gain access to Assistive Technology devices and services in order to maintain or improve their level of independence, even with limited resources. TTAP ensures that Jeff has access to technical support or loaner technology in the event his equipment isn’t working, and it enables him to stay informed about advances in technology that could benefit his business or ability to live independently.

In 2004, technology did not offer what it does today for any of us – but especially for individuals like Jeff. Having the determination to acquire new skills, Jeff claims the secret to his success has been, “Don’t ever say you can’t do something; there’s always a way.”

Four centers provide Assistive Technology services across the state of Tennessee, though each has various programs and sources of funding, including VR, TTAP, Veterans Affairs, Tennessee Early Intervention System, school systems, and private pay. Mid-South ACT (memphis.edu/act) is located in Memphis; Signal Centers (signalcenters.org) in Chattanooga; and Spark (sparktn.org) in Knoxville. In addition to providing services in West Tennessee, STAR Center (star-center.org) recently expanded its Assistive Technology programs to include Middle Tennessee. End of Article Five.

Article Six:

# Technology in My Life

by Suzanne Colsey, Executive Director, Freedom Co-op, and Partners in Policymaking 2003-04 Graduate

This article contains one photo. It is a close-up picture of the article author, Suzanne Colsey, sitting in a field of tall, bright sunflowers. Suzanne is wearing a coral-colored blouse and smiling. The caption reads, “Suzanne Colsey enjoying a beautiful day.”

The article begins here: Technology plays an extremely important role in my life due to my disability. I use technology in all aspects of my life. Today’s technology is assisting me in living my life to the fullest.

At the beginning of my day, my ceiling lift assists me in rising out of bed. Then the lift takes me to the bathroom through an opening in the wall that we had cut out, because it cost less than going through the doorways for my daily grooming routine. My ceiling lift allows me to access a larger pool of direct support professionals to choose from, since I don’t need anyone to do heavy lifting.

When I finish my grooming routine, I get into my power wheelchair for mobility during the day. My wheelchair allows me to go independently anywhere I want. If I cannot get somewhere using my chair, I have an accessible van which has a remote that operates the wheelchair lift. My van enables me to hold down a full-time job and help a friend with his grocery shopping weekly. At the end of my work day or time outside of my home, I use an app on my phone to unlock my door.

My computer has a program on it that assists me with my daily expressive communication, and allows me to type and give presentations on numerous topics. I also use the text messaging app on my smart phone for expressive communication when my computer is not readily available. In order to make my computer more user-friendly, I turn on the accessibility features that come automatically with Windows.

I feel like technology has played an important role in my independence. I am doing whatever I can to stay out of a nursing home, and technology certainly helps.

Technology is the best. End of Article Six.

Article Seven:

# Youth Leadership Academy 2019, The Peer Mentors carried the days

by Marissa Fletcher-Smith, Independent Living & Referral Specialist, Empower Tennessee

This article has multiple photos in it. The first photo shows two women giving a presentation in front of youth. One is holding an index card; the other has her arms spread apart as if she is demonstrating something. The caption reads: “Fermina Lopez and Marissa Fletcher-Smith co-present to the YLA 2019 participants.” YLA stands for Youth Leadership Academy. The second photo shows two staff members smiling and holding up a sign that they have decorated with colored markers. The caption reads, “Ebony Cole and Birtha Street display their Empowerment Statements.” The third photo shows a staff member and a youth presenting. The young person sits and the staff member stands. They are both laughing at something that was said. The caption reads, “April Meredith and Gillian Lynette during an icebreaker led by Gillian.” The fourth photo is the same large group photo that was on the Table of Contents page. The following caption identifies the people in the picture: “Top row, left to right: Gina Lynette, YLA staff; Houston Vandegriff, 2019 grad; Birtha Street, YLA staff; Drew Thigpen, 2019 grad; Brandon Brown, YLA staff and Empower TN Executive Director; Ebony Cole, YLA staff; Thomas Hardeman, 2019 grad; Ned Andrew Solomon, YLA staff; and Marissa Fletcher-Smith, YLA staff. Bottom row, left to right: Gillian Lynette, Peer Mentor; Fermina Lopez, Peer Mentor; Isabel Neely, 2019 grad; Joshua Riley, Peer Mentor; Guice Smith, 2019 grad; Roger Romines, 2019 grad; Sarah Carson, Peer Mentor; and April Meredith, YLA staff. The fifth photo is of a young lady holding up a sign that she has decorated with magic markers. You can see the words “uniquely me” on the sign. The caption reads, “Sarah Carson displays her Empowerment Statement.” The last photo is of a staff member giving instructions to a table with three youth. The caption reads, “Gina Lynette presents to the gathered youth about future planning and budgeting.”

The article begins here:

Lately, the world feels harsh and unsure. When I think of what the future holds, it is difficult not to be resigned to fate. However, I steadfastly long for hope and understanding. After the 2019 Youth Leadership Academy (YLA), I feel encouraged by our young people. Despite the uncertainty they experience with us, even more so because of their youth, their light is truly the promise of our country and of the world. Through encouraging and enhancing that youth light, we can all share in the redemptive hope for a better tomorrow.

This year’s YLA was hosted by three agencies: the Tennessee Council on Developmental Disabilities, STEP (Support & Training for Exceptional Parents), and the agency I work for, Empower Tennessee. Our agencies collaborated with staff involvement and funding. The funding allowed for participants who lived outside of Middle Tennessee to be able to attend this vital occasion.

It was a small affair, but big on action! This year we focused on disability pride and civil rights, employment, self-advocacy, problem solving, near-future planning, creating personal statements, and YLA testimonials. Through these interactive sessions, the participants were able to learn but also contribute in a variety of ways. This allowed YLA to become something more uniquely special than our agencies could have ever dreamed of during our planning process.

As a pinnacle example of YLA’s long-lasting reach and scope, this year we welcomed some of our previous years’ attendees as “Peer Mentors” to the new generation of YLA participants. Last year, they strove to enrich their lives with skills that would help them become leaders for themselves and the community at large. They bonded over assistive technology, advocating for themselves, and learning about employers and what it means to be employed. They spent time at the Frist Art Museum and connected with each other over what their hopes were for the future. This year, these individuals came back to YLA with their own personal growth and life experiences, ready to shine as examples of leadership to the YLA Class of 2019.

The Peer Mentors’ lights shone brightly as they created and led activities, shared their empowerment stories, helped others, and by publicly standing proud in their own personal truths. This made a profound impact on our 2019 YLA participants. Not only did they have positive examples to look up to and learn from, they had people with shared life experiences who actively engaged them in finding their own voices.

It was truly a beautiful sight to see and a joy to be around! It lifted my spirits seeing these young adults discuss and work on important life issues and choices. It caused me to examine myself more deeply and fully, and to reflect on the life choices I’m making. It made me feel honored to be around young people who seek to not only be better for themselves, but to think about how they can be the light of our shared future for others they might know personally, or encounter in the future.

The group of young people who participated in YLA sought it out themselves. They filled out the applications. They had one-on-one interviews and worked on a plan to be here to participate. They made the effort to learn more about themselves and to gain skills to become leaders in their own communities. This group was fun and proud. They were unique, inquisitive, open, creative, and absolutely on the road to adulthood.

When we came to the end of this amazing experience, we asked our participants and Peer Mentors what the YLA had meant to them. Their answers were profound, and struck a major chord with me. One Peer Mentor said, “It took a lot of work to get confident, and if you want to be confident you got to work at it. You got to find the part of you that you like, even if it is really, really tiny. And it can feel like it’s really, really tiny, like there’s nothing to like, but if you find that one piece and hold on to it, you can get confidence! Then people will finally take you seriously.”

Another Peer Mentor stated, “It’s just been great. I’m glad to get back to the disability community and the youth in general that have disabilities to teach self-advocacy skills so they can help other people be able to advocate for themselves.”

One of our participants said, “The experience was amazing…I would’ve never thought about some of the ways to handle certain things, and it really helped me and I’m very appreciative of that.”

The sparkling feedback from our Mentors and participants reflects the genuine gold nugget of our shared experience at YLA 2019. Working together, these sparkling lights can overpower the harsher realities of our world with the unified brilliance of shared experience, understanding, and vision. End of Article Seven.

Article Eight:

# Technology and an Unexpected Life Change

by Signal Center Staff, Chattanooga

There is one photo in this article. It is a close-up head shot of the article subject, Ernest Tshisweka. He is smiling at the camera, and wearing a suit jacket over a bright, red shirt.

Ernest Tshisweka was born in the Democratic Republic of Congo. He speaks eight languages and has a Bachelor’s and Master’s degree in theology and counseling. The 56-year-old came to the United States in 1996 as a Nigerian refugee. He returned to Africa in 1997 as a missionary, working in Congo, Ghana, and Zambia. Because of rising tensions with militias and the Congolese government, Ernest moved back to the US in 2009, never expecting that he would experience a major change in his life.

In 2015, Ernest suddenly lost his vision, which greatly affected his ability to continue working. At the time, he was working for Life Bridges as a Direct Support Professional, helping other individuals who had disabilities. His sudden vision loss made it extremely difficult to use computers and telephones, and to get around safely in his environment. He was referred to Signal Centers by Southeast Vision Rehabilitation, and began training on computer and phone access, orientation and mobility (O & M), and adjustment to blindness classes.

Ernest became quite skilled in the Cooking without Looking class. Lana Little, the director of the program, recalls his first introduction to cooking. “When Ernest first came to us, he was literally eating cold food out of cans,” she explained. “We asked him to bring in some recipes of the kind of cooking he missed from his homeland, and we helped him figure out the process of how to make those meals.”

Ernest now cuts up vegetables like a prep cook and makes Nigerian stews in a crockpot by himself.

Assistive Technology Services then helped connect Ernest with the Senior Community Service Employment Program (SCSEP), a federally-funded program run locally by Goodwill. That program was able to find meaningful work for Ernest at Vive for a Dream Immigrant and Refugee Services in Cleveland, Tennessee. “As a former refugee, I am very concerned about the lives of refugees, especially in situations where people are trying to flee from one dangerous place to another,” said Ernest. “That’s why I am here at Vive, because I love refugees.”

Ernest is able to support himself with the help of assistive technology and using his knowledge of other languages. He is also in the process of bringing his wife and two children to the U.S. “Because I was introduced to the phone and how to use it, I found a better way to communicate with my family using apps like WhatsApp,” he said. “I prefer to communicate with them using WhatsApp rather than the regular phone because it is easier to use by myself.”

Technology has helped Ernest work, and keep his family together. He is one of the many people who have experienced unexpected vision loss. With the help and support of Signal Centers’ Assistive Technology Services, many individuals develop the skills needed to enhance and maintain their independence. End of Article Eight.

Article Nine:

# Ned Andrew Solomon Retirement Tribute

by Wanda Willis, Executive Director, Tennessee Council on Developmental Disabilities

This article contains several photos. The first photo shows Ned Andrew Solomon sitting cross-legged on a blue gym mat covered with baby toys, talking to two young women, one with a newborn in her lap. The caption reads, “Ned Andrew talks to new moms about disability services and resources in Tennessee.” The second photo shows Ned Andrew standing next to a young man, who has a microphone. The caption reads, “Ned Andrew encourages a high school student to ‘use his voice’, during a Youth Readiness Day.” The third photo shows Ned Andrew sitting cross-legged on a floor, posing with a huge number of young men and women in an atrium with columns. The caption reads, “Ned Andrew with Bethel University Physicians Assistant students. His training was on disability sensitivity and awareness.” The fourth and last photo shows Ned Andrew sitting at a table with four male students in a classroom. The table is covered with papers and cards with images on them. The cation reads, “Ned Andrew helps students come to consensus during a budgeting activity.”

He article begins here: It has been 19 years since Ned Andrew Solomon first joined the Council as Director of our Partners in Policymaking Leadership Institute. In that time, hundreds of Partners graduates have become empowered advocates for themselves and others under his leadership and mentoring. Hundreds of high school students and young adults with disabilities have left Council trainings better prepared for adulthood, with skills to build the future they want for themselves. Countless professionals across the state have been trained in disability sensitivity and person-centered practices.

Here in Breaking Ground, I especially want to note how this magazine has grown under Ned Andrew’s leadership. As editor-in-chief, he has elevated the annual arts issue to national recognition. Ned works with our communications staff to choose story topics. He recruits authors from state government, private organizations, and the community to write stories that inform and inspire. He brings his own keen writing skills to articles he authors. His sharp editor’s eye brings out the best in every story. He sets a high bar for quality at every level. The growth in Breaking Ground’s readership shows its value as a key source of disability information and education.

Every project Ned Andrew has touched has been improved. It is impossible to measure how many lives he has touched through his work at the Council. We can count Partners in Policymaking graduates, youth and professionals who attended trainings, and readers of this magazine.

But those lives touch other lives, forming ripples that flow across our state and beyond.

Many of our Partners in Policymaking graduates have shared their own stories of how Ned Andrew has affected their lives. I’d like to end with a few of those personal tributes, which best show the legacy Ned Andrew Solomon leaves through his work at the Council.

If you would like to share your stories and photos from Ned’s time at the Council, email them to TNDDC@tn.gov.

The following are quotes from people whose lives Ned Andrew impacted.

I was lucky enough to have Ned Solomon in my Partners class, so I have had the absolute pleasure of getting to know Ned as a fellow Partner and watching him grow and nourish this amazing network. It takes someone very special to work with Partners from across the state, because we all bring our unique strengths and differences with us. I am grateful to Ned for the time and passion he has shared to build leaders across Tennessee. It’s hard now to imagine Partners without him. By Elise McMillan, Class of 1995-96

He has a way of encouraging people to be and do their best through asking amazing questions and offering opportunities like no one else. Ned Andrew is paying attention when no one else might be looking, which is a great gift for everybody. He is a partner in policy making and real life for all who know, respect him, and love him. His impact will be forever felt and appreciated in all places he has broken ground for good, and will in days ahead. Travel mercies in all your new adventures, Ned Andrew! By Laura Payne, Class of 2016-17

Meeting Ned and working with Partners in Policymaking® remains in my top ten life events. I found Ned to be a perfect fit for PIP. He was serious, dedicated, and yet made it pleasant, downright fun. I feel that way about everyone involved in the program. Ned was always trying to tweak it to make it MORE perfect. He was open, honest, and it was refreshing to meet someone that was making a difference. I often recommend the program, and I wish him all the best. By Julie Matejko, Class of 2001-02

Thank you, Ned, for everything. From remembering my name to remembering my child’s name and for always answering emails or phone calls showing you care so much. For following up, for encouraging to keep going, for smiling and for making me a better advocate. I wish you the very best in your new adventure. Take care of yourself. By Luz Belleza-Binns, Class of 2010-11

2001 wasn’t the greatest year. 9/11 happened, one of my best friends was killed by a car, and I acquired a spinal cord injury. At the time, I was woefully ignorant of the entire disability world. Partners in Policymaking (PIP) gave me an education that I have used extensively ever since my “graduation.” I can’t think of PIP without thinking of Ned. Over the years, I have received more valuable disability information from Ned than anyone else.

I never properly thanked him for everything. I never let him know how much he positively affected so many people in need of life-saving assistance and knowledge. Thank you, Ned. You’re a priceless jewel. By Dennis Clark, Class of 2008-09

Partners in Policymaking is a free advocacy and leadership training course for Tennesseans with disabilities and family members of people with disabilities. For more information or to apply for a future class, visit our website at [www.tn.gov/cdd](http://www.tn.gov/cdd). End of Article Nine and end of magazine.

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