The Wonderful World of Assistive Technology & the AT Act Programs

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What is Assistive Technology? & Who is it for?

Assistive Technology in 2026

- Nearly 40 Years of AT Evolution
- Now AT is an ecosystem that supports functional capability across the lifespan
- Yet misunderstandings persist
- The reality: AT serves anyone navigating changes in vision, hearing, memory, mobility, fatigue, speech, or behavioral health (and more!), regardless of age and whether they identify as "disabled.“
- The 21st Century AT Act (2022) anchors AT in lifespan access and cross-disability reach, defining both the technology and its beneficiary population in functional terms.



Definition of Assistive Technology

- **ASSISTIVE TECHNOLOGY**—The term ‘assistive technology’ means technology designed to be utilized in an assistive technology device or assistive technology service.

- **ASSISTIVE TECHNOLOGY DEVICE**—means **any** item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

- **ASSISTIVE TECHNOLOGY SERVICE (abbreviated)**—means "any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device," encompassing evaluation, acquisition, customization, continued, follow-up coordination with therapies and education plans, instruction for the individual and their support network, training for professionals and employers, and, critically, "expanding the availability of access to technology, including electronic and information technology, to individuals with disabilities" (clause G).

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AT is…

defined by

what it does

in improving, maintaining, or increasing the functional capabilities of the person

VS

what the device is

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It is as simple as:



Who is Assistive Technology For?

- **People of All Ages with Disabilities**
- **Older adults and those Aging into Disability**
  - "**Underrepresented population**" to include "**older individuals**" and "youth with disabilities **aging into adulthood**.“
  - To "increase access to and acquisition of assistive technology addressing the needs of **aging individuals and aging caregivers in the community**.“
  - Requires State AT programs to collaborate with the State agency under the **Older Americans Act**
- **Temporary, Intermittent, and Progressive Conditions**
- **People Who Do Not Yet Identify as Disabled**
- **Support Networks**
  - AT services include instruction for caregivers, family members, guardians, and advocates, and for professionals, employers, and others substantially involved in the major life functions of individuals with disabilities .

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Reminders about AT Devices and Services

Assistive technology is not a **magic wand**.

More Assistive Technology is not better.

Remember that getting assistive technology devices is not the goal – **meeting the individual's needs for independence and safety is the ultimate goal.**

Match the needs to the equipment not the iPad to the needs. **One device does not fit all!**

Assistive Technology Devices

The Assistive Technology Umbrella-1

The Legal definition of AT is inherently broad enough to include all of this technology AND MORE, including technology that has not been invented yet!!

1. **Speech Communication** such as dedicated speech generating devices, mainstream tech with apps, low tech picture boards, accessibility features and other access devices, etc.
2. **Vision**-magnifiers, mobile devices with apps, software, talking devices, large print keyboards, video magnifiers, etc.
3. **Hearing-**amplified telephones, alerting systems, video communication with ASL, personal hearing systems, etc.
4. **Home Modifications**-ramps, grab bars, walk-in showers, etc.
5. **Environmental Controls**-smart home devices (i.e. smart speakers, sensors, smart plugs, cameras, thermostats, door openers, TV controls, smart deadbolts, remote shades, etc.), IR/RF controls, built-in accessibility features, and other access devices, etc.
6. **Communications Technology**-telehealth, remote monitoring, care companions, social isolation, built-in accessibility features, mounts and access devices for mobile phones for communication, as well as the connectivity to run the devices, and more.

The Assistive Technology Umbrella-2

The Legal definition of AT is inherently broad enough to include all of this technology AND MORE, including technology that has not been invented yet!!

7. **Learning, Cognitive, Developmental, Behavior Health Technology**-wandering tech (i.e. GPS, alarms systems (analog/smart)), mobile devices and apps (i.e. scan & read),wearables, software, educational tools, memory devices and reminder systems (i.e. medication management systems-analog/smart), robotic pets, etc.
8. **Daily Living Technology**-PERS and fall detection systems, smart devices for living (i.e. wearables, toothbrushes), tech for eating, toileting, dressing, robotics, etc.
9. **Vehicle Modifications & Transportation Tech-** ramps, driving controls, seat assist, etc.
10. **Recreation, Sports and Leisure Tech-**adapted gaming tech, gardening tools, etc.
11. **Mobility, Seating, and Positioning-** wheelchairs, exoskeletons, access controls, Durable Medical Equipment, etc.
12. **Computers and Related-**includes mainstream tech such as computers, tablets and other mobile devices, software, all access methods (i.e. mouth joystick, eye-gaze, onscreen keyboards),
13. **and More!!!**

NOTE: Assistive technology wears many hats; a single device often fits into several different categories depending on how it's used.

Smart Home Tech for Independence

- Who's at the door
  - Changing the code, not the key when staff change
  - Video- who is at the door
  - Unlock the door independently
- Open the door independently
- Camera for monitoring property
- Lighting-user controlled and automatic
  - WI-FI, Infrared, Radio Frequency
- Pushing non-smart buttons
- Give pets snacks
- Shades/Blinds
- Heating/Cooling-Thermostat and fan
- Communicating-Video and phone
- Cleaning-Vacuuming
- And more!



Wyze 360 Pan Camera with SD card



Autoslide Door Opener with smart pendant



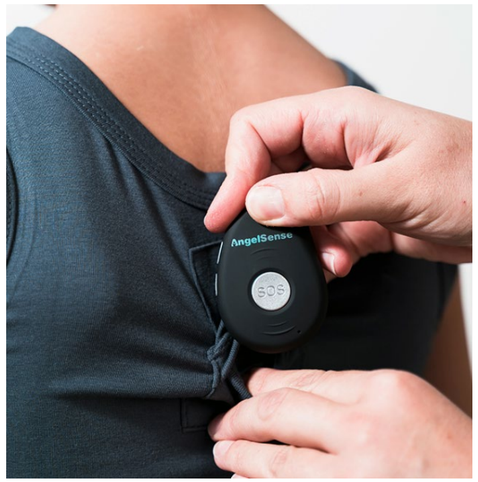
Lotus Ring light switch adapter



SwitchBot on an apartment Intercom and a non-smart coffeemaker

AT for Monitoring Loved Ones

- Alarms Systems with window/door sensors and motion detectors
  - Smart and non-smart
  - Monthly fee and no monthly fee
- Trackers
  - Wearables
    - Wrist
    - Pendant
    - Attached to clothing or shoes
- Fire/Flood Monitoring
  - Stove Controllers/monitors
    - Smart and non-smart
    - Monthly fee and no monthly fee
  - Smart CO2 and Smoke detectors
  - Smart Flood Alarms
- Personal Emergency Alerting Systems
  - With and without fall detection
  - With and without a monthly fee
  - Landline or Mobile plan based



AngelSense



SmplTec system



Freedom Alert



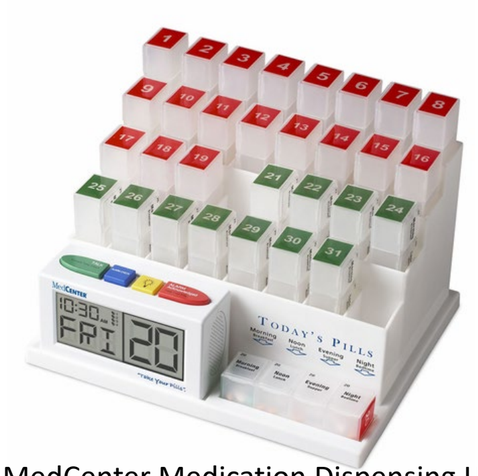
Wyze Sensor System

AT for Medication Management

- **What do they need to remember-**Medication
  - Locked Devices
    - Monitored/Unmonitored
  - Unlocked Dispensers
  - Watches/Pagers
  - Apps
- **Epill.com** with so many choices like the MedCenter

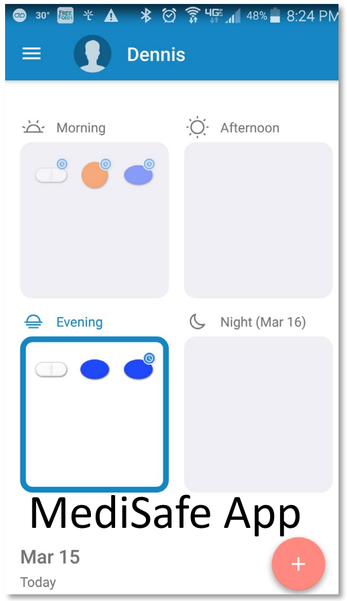


Medready Locked Medication Dispenser



MedCenter Medication Dispensing Unit





Communication-Video, Voice Calling, Texting

- Picture Phones-Landline and Cellular
- Drop-In Video Calling-Amazon Echo Show
- Built-in Accessibility Features for Smartphones
- Captioning Phones
- Amplified Phones
- Large button phones



Big Button Amplified Phone



CapTel Phone



Echo Show with Drop-In Video



RAZ Memory Phone

Safety-Keep Out/Away

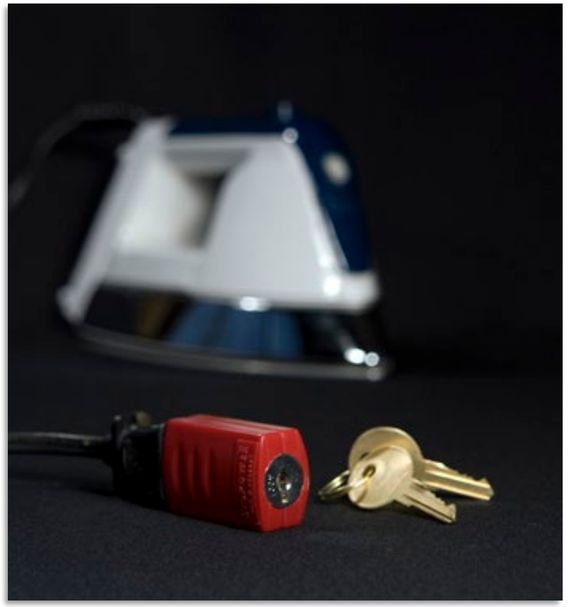
- Magnetic Locks
- Plug Lock
- No-Start Battery Lock
- Door Mural



Invisible Cabinet Locks



Wall Door Mural



Electric Plug Lock

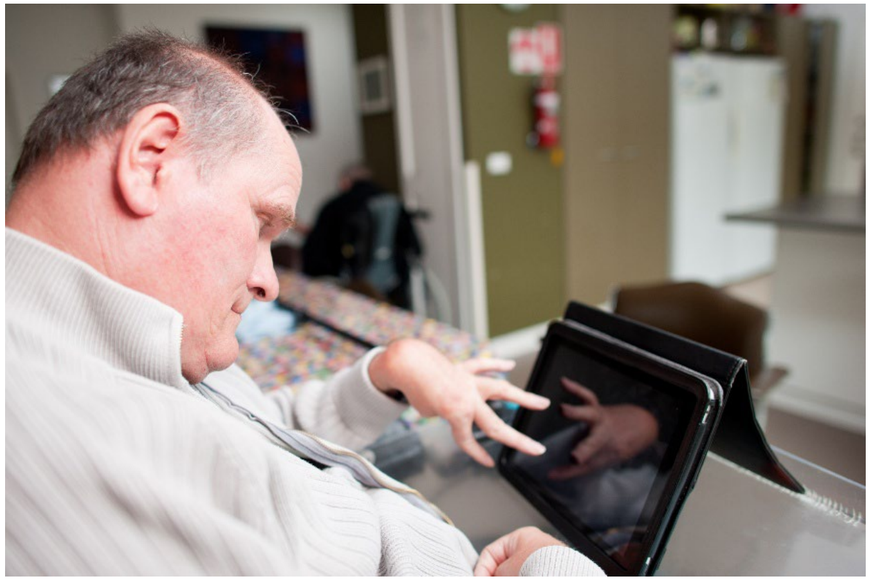


No Start Car Battery Switch

What is the Assistive Technology Act?
&
What are Assistive Technology Act Programs?

What is the Assistive Technology Act- Definition

The **Assistive Technology (AT) Act** is a federal law in the United States that provides funding to states and territories to support programs aimed at increasing the availability of, access to, and acquisition of assistive technology (AT) devices and services for individuals with disabilities.





What is the Assistive Technology Act-Summary

- Essentially, the AT Act helps states and territories establish programs that:
- **Increase awareness** of AT.
- **Provide access** to AT devices through demonstrations, loans, and reutilization programs.
- **Help individuals acquire** AT through various financing options and support.
- **Offer training and technical assistance** on the use and benefits of AT to individuals with disabilities, their families, and professionals.

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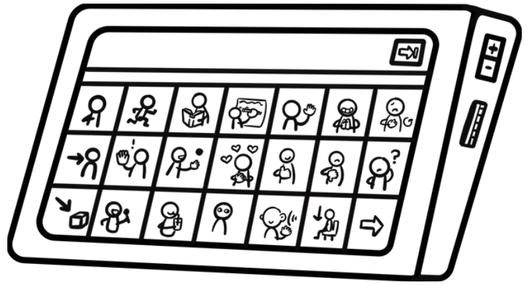
AT Act Program Structure

1. **State Assistive Technology Act Grantees**
   Operate in all 50 states, the District of Columbia, Puerto Rico, and four Territories

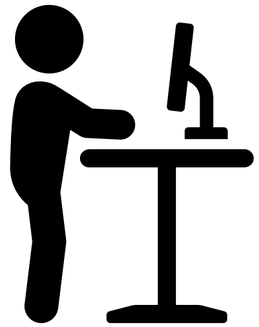
AT Act Programs are housed in either:
1) State Government (i.e. - VR, Education, Disability, Health, DD Council) (21 programs)
2) University-based (21 programs)
3) Non-Profit-stand-alone non-profit or under a larger non-profit (14 programs)

Core Services of AT Act Programs



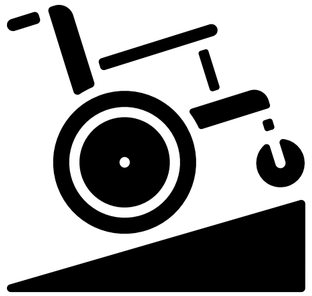
AT Device Demonstration

See, touch, and try AT devices to help aid you in the decision-making process.



Short-Term Device Loans

Borrow AT to determine if a device meets your needs before making a purchase.



Device Reutilization

Receive gently used AT devices and durable medical equipment to use for as long as needed.



Financing Activities

Purchase your own AT device or equipment with various finance options

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All Activities of AT Act Programs

State-Level Activities:

Device Demonstrations

Device Short-Term Loans

Device Reutilization

Financing Activities

State-Leadership Activities:

Information & Assistance

Training

Public Awareness

Technical Assistance

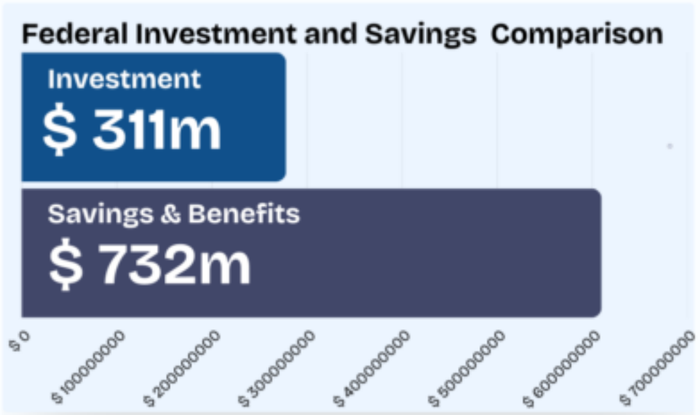
Who do the AT Act Programs Serve?

EVERYONE!

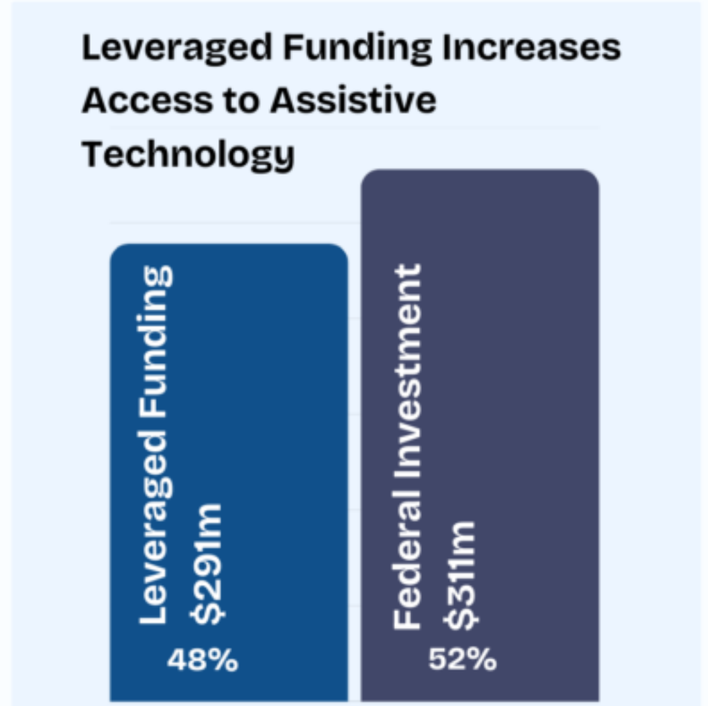
- **General Public-so they know about AT before they need it!**
- **People of All Ages with Disabilities**
  - **Twinkle to Wrinkle**
- **Older adults and those Aging into Disability**
  - See slide 7 for more info
- **Temporary, Intermittent, and Progressive Conditions**
- **People Who Do Not Yet Identify as Disabled**
- **Support Networks**
  - **Caregivers, family, guardians, advocates, therapists, teachers, professionals, employers and others** involved in the major life functions of individuals with disabilities and aging adults.

Services Flow of the AT Act Programs

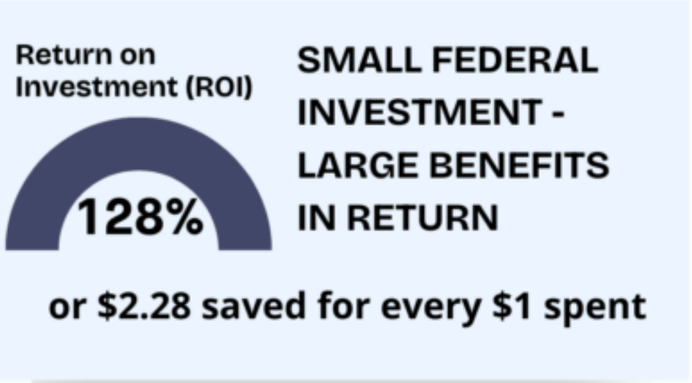




The Assistive Technology Act - reauthorized in 2022 - provides formula grant funding to 56 states and territory programs to enhance awareness, create access, and increase the acquisition of Assistive Technology for people with disabilities and older adults.



Leveraged funding brings resources from outside partnerships and entities to increase access to AT.





The ROI of AT Act Programs 2014-2024

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North Dakota AT Act Demonstration Center & Smart Home-Fargo

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Oklahoma AT Act Demonstration Center & Smart Home-Stillwater



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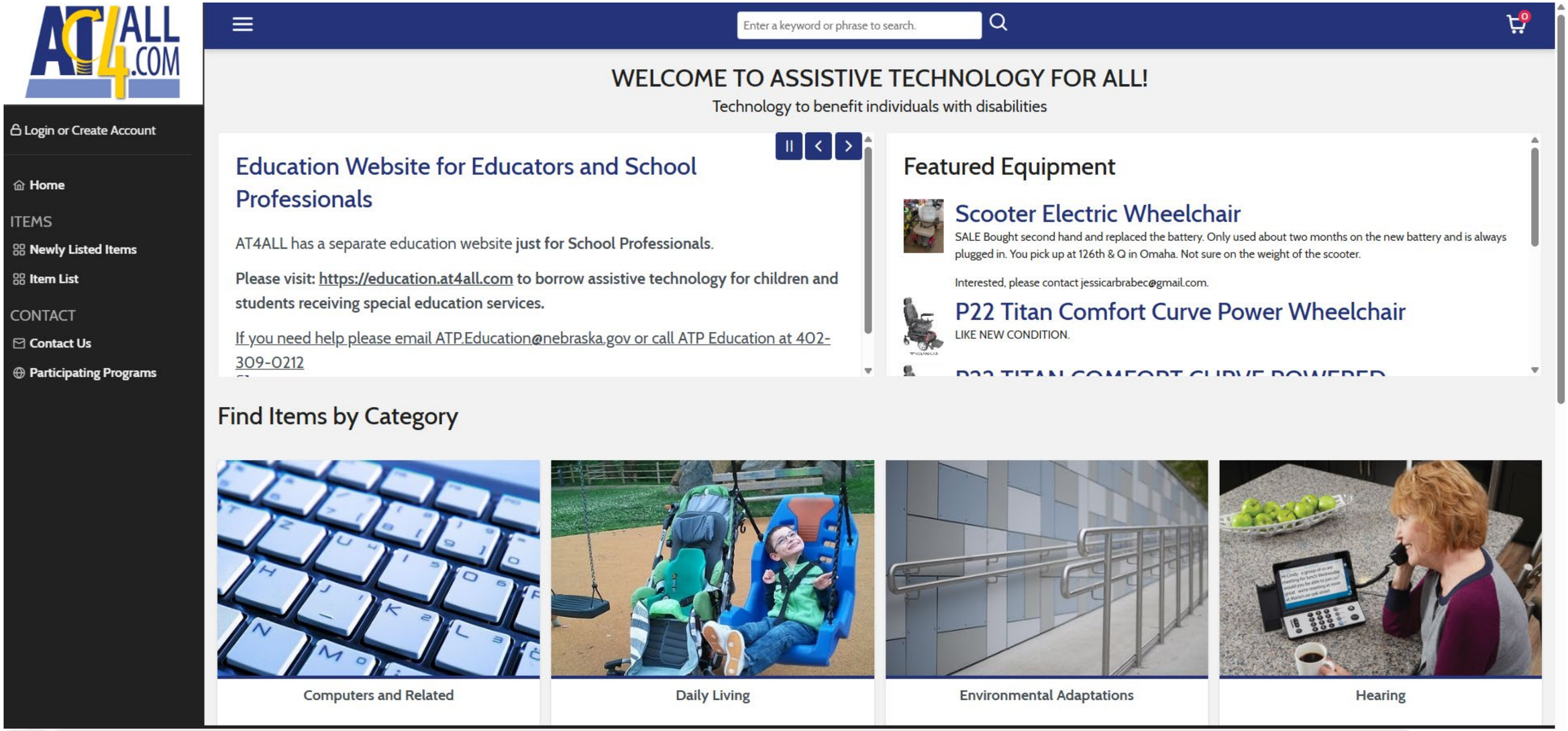

Online Libraries

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AT Loan Library at the Oklahoma AT Act Program





Important Changes in the 21st Century AT Act of 2022

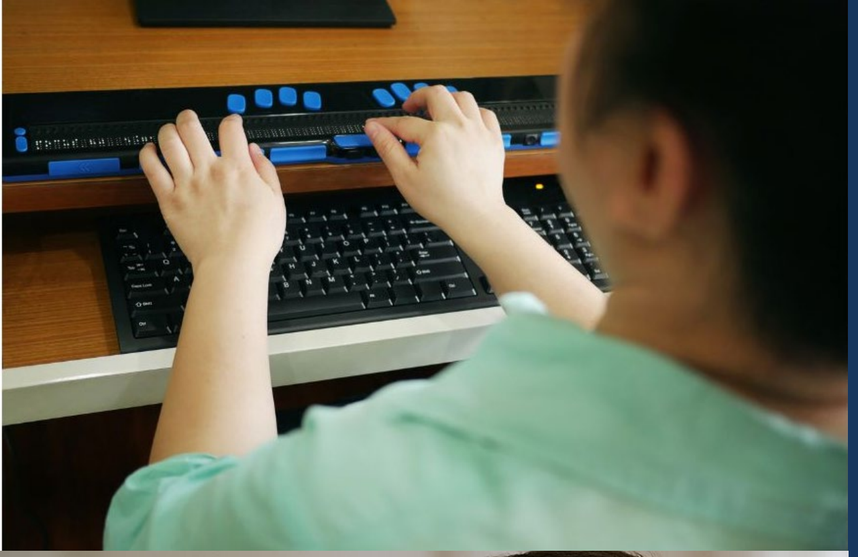


Federal Partner Collaboration (new language)

Every AT Act Program must attempt collaboration with the following state agencies:

- State Educational Agency receiving funds through the Individuals with Disabilities Education Act;
- Vocational Rehabilitation Agency;
- State Medicaid Agencies;
- Any other agency in a state that funds assistive technology.

Telecommunication Equipment Distribution Programs





iCanConnect: National Deaf-Blind Equipment Distribution Program

What does it Do?

- Free equipment and training
- **iCanConnect Equipment** -examples include: Computers, Smartphones, Braille Devices, Software, signalers, and accessories

Eligibility

- Have BOTH a vision and hearing impairment within the eligibility guidelines and
- Qualify financially-400% of federal poverty guidelinesi(e. 1 person=$62,600)

How to Apply

- Locate your stateand follow their application procedures.

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State Telecommunication Equipment Distribution Programs

What Does it Do?

- Each state program independent & unique
- The majority provide free equipment and training for people who have difficulty using a standard telephone.
- **Equipment** includes amplified and big button phones, smartphones, signalers, and accessories.

Eligibility

- State eligibility guidelines vary, however,
- All have a financial eligibility component
- Most cover equipment for hearing loss.
- In addition, many also cover phones and accessories for vision, cognitive, and physical disabilities

How to Apply

- Locate your state and follow their application procedures.

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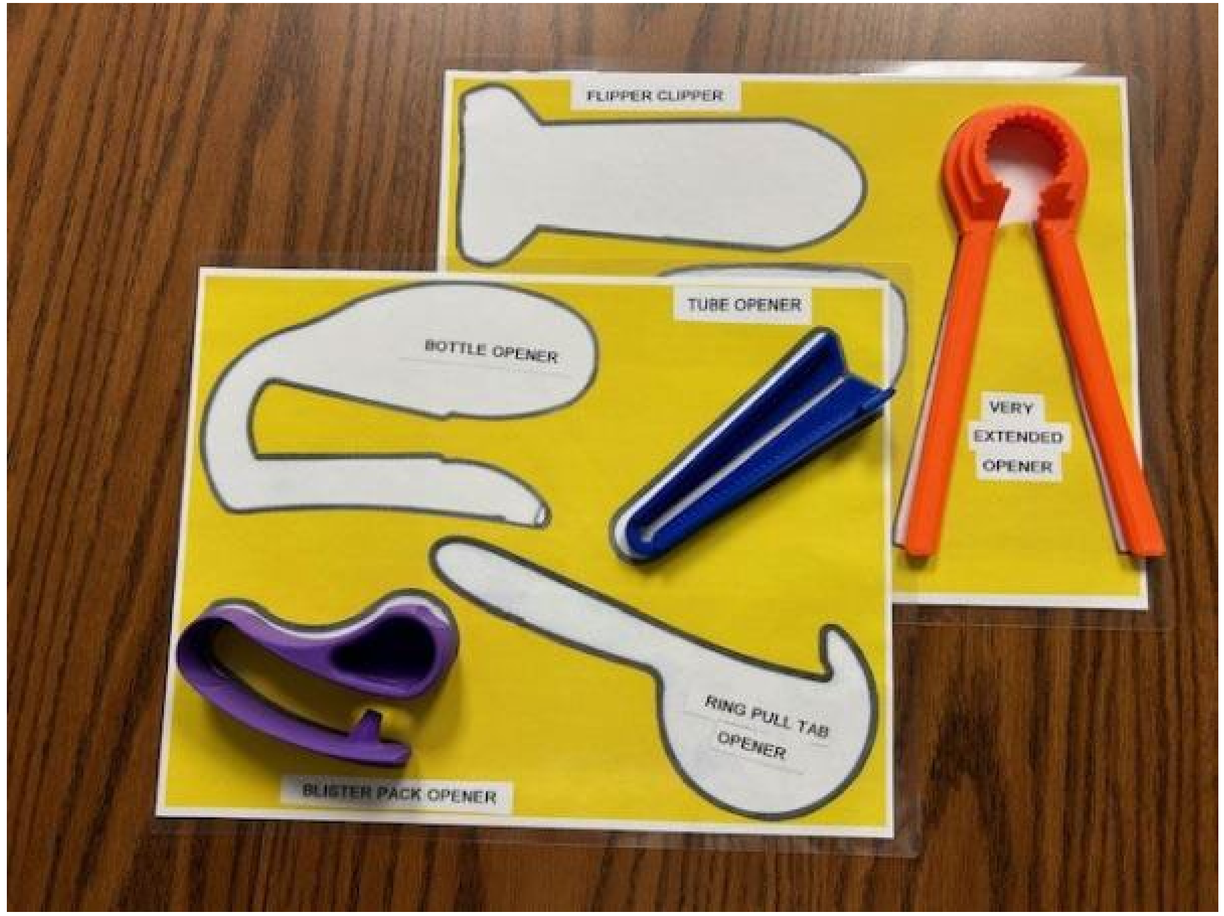
Innovative AT Act Program Partnerships

Missouri’s AAA 3D Printing Project







North Dakota AT Ambassador Program

Success Stories and More

Minnesota Success Story

- 95-year-old woman at least 300 miles from nearest caregiver
- Mobility issues-uses a walker
- Can get up/downstairs but is a significant fall risk
- Still lives in her four-level home
- Mild cognitive impairment, depending on the day
- Great hearing, vision, speech, and fine motor
- Wants to be able to continue to live in home
- Want to go up and down stairs in her home safely and without pain
- Remember to take medications
- Falls prevention
- Fixing meals
- Grocery Shopping
- Bathroom-has walk-in shower-but showerhead is too high
- Paying bills
- Social Connection

Possible Solutions-MN

- Stairlift
- Apple watch
- Amazon Echo Show and Dot- reminders, lights, video drop-in & more
- Smart plugs
- Smart Cameras and/or sensors
- Grocery shopping-delivery App and training
- New microwave with sensing tech and auto shutoff
- Meals-on-wheels
- Locked Medication Dispenser
- Finances-
  - Autopay bills
  - All accounts online accessible for caregiver access
- Tray and/or bag for walker-i.e. phone
- Phone-GPS, reminders, social connection
- And more!

Device Examples-MN



Smart Plugs



Walker with transparent tray, bag



Amazon Echo Show



MedMinder



Wyze Camera



Sensor on a door frame with app on smartphone for notifications-various brands

What Can We Achieve Together?



From North Dakota Assistive

Every person on the planet will either need assistive technology for themselves or they will know someone who needs it. The trick is to build AT awareness, so everyone knows about it before they need it, and NO ONE goes without!

This requires a collective effort from all of us who are already familiar with these life-changing solutions!

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Every state. Every territory. Every person.

Discover your local AT Act Program.

Questions?

Find Your AT Program

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