

AT for Independent Living, Education & Work

2023 Summer Transition Institute



Technology Solutions for Life's Limitations

Presenter:

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DakotaLink – brief overview & history

Established in 1992, DakotaLink is a program of the South Dakota Department of Human Services, Division of Rehabilitation Services administered by Black Hills Special Services Cooperative and funded in part through a grant from the United States Department of Education, Office of Special Education and Rehabilitation Services through the Rehabilitation Services Administration under Public Law 108-364, referred to as the Assistive Technology Act of 2004 or the Assistive Technology Act of 1998, as amended.

DakotaLink – Mission & Goals

- Our mission is to assist individuals with functional limitations; due to a disability, illness, injury, or the effects of aging; maximize their potential whether at home or in the community, at school, at work, or at play through the use of Assistive Technology.
- Improving access - defined as information, knowledge, awareness and understanding
- Improving acquisition - defined as obtaining assistive technology devices and services

DakotaLink – Fee for Service

- Provide assessment, sales, installation and training
- Six technicians are available to provide assistive technology devices and services to individuals with disabilities of all ages
- From start to finish, a one stop, turn key solution
- Offices in Rapid City, Sioux Falls, Brookings and Aberdeen

What is Assistive Technology?

- Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.
- **No Tech – Low Tech – High Tech**: All are considered AT



Devices + Services =?

- AT Devices & AT Services are the two halves of the AT world.
- **Devices** are any item that is used to increase, maintain or improve functional capabilities
- **Services** directly assist an individual in the selection, acquisition, or use of a device
- Services for any device is essential in ensuring that the consumer has the correct device, a way to obtain it, and education for how to use & maintain it... which leads to....

Success!



Types of AT

Low Tech

- Simple, affordable tools that are often not electronic

Medium Tech

- Simple Electronic Devices

High Tech

- Advanced tools that incorporate computers, tablets & smart devices and the internet.
- AI.....?

Did you know? AT has been around for centuries: eyeglasses, for example, date back to the late 13th century. Wheelchairs were known to exist in China almost 1500 years ago!



AT in School

- **Under IDEA** (Individuals with Disabilities Education Act)
 - Schools are legally required to consider assistive technology for each student who receives special education services.
 - Any member of the team can provide input in this conversation.
 - Many students, even those without disabilities, find AT to be extremely useful for success



Reading

- Reading guides, colored overlays
- Audio Books – human reader (recorded)
- Text to speech
 - Read & Write, Kurzweil 3000
 - OneStep Reader, Seeing AI, Narrator
 - Built in tools



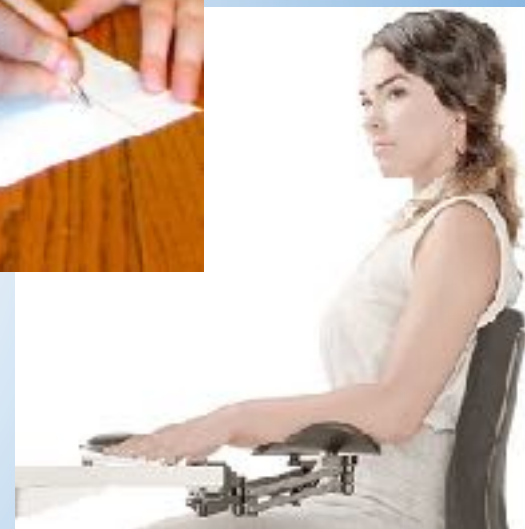
Questions to ask:

Where do I get my books from?

What devices, if any, can be used in this area?

Writing

- Pen/Pencil Grips, weighted/large pens
- Raised line paper
- Arm/wrist supports
- Word prediction
- Speech to Text
 - Dragon
 - Microsoft, Apple, Google dictation
 - A good microphone!



Questions to ask:

Is speech clear?

What device is available?

Is a microphone available?

Test taking, paper assignments, etc?

Math

- Talking calculators, calculator apps
- Other talking devices: tape measures, measuring cups, scales
- Low tech manipulatives, games
- Photomath, Google
- Dragon/MathTalk



photomath
smart camera calculator

Questions to ask:

Is this related to reading, ie, story problems?
Will teachers consider Photomath "cheating"?
What will be used during tests?

AT in the Workplace

- AT can be essential for success in the workplace. Many consumers obtain technology through:
 - Vocational Rehabilitation (State)
 - Service to the Blind & Visually Impaired (VR)
 - Veterans Administration VR
 - Employer supplied equipment
 - Private purchase/other funding sources



Ergonomics

- Chairs and seating
- Sit/stand workstations
- Keyboards, mice, monitors
- Wrist/arm support, lumbar support, neck support



This is one area that is often overlooked until it's a necessity – repetitive stress injuries are preventable!



AT for Independent Living

- AT at home keeps consumers safe, connected to loved ones, living independently, and out of care facilities
- Could include medical equipment such as lifts, wheelchairs, stair lifts, etc
- Communication access – in person (AAC) or distance (telephone or video)
- Smart home devices
- Very wide variety of low tech & no tech items



AT for IL – Many Types

- Seating, Positioning, Mobility
 - Wheelchair modifications, gait trainers, stand aids – mostly low/medium tech
 - Lift systems (ceiling, wall, pool, van, equine, etc) – medium tech
- Recreation/Sensory Aids
 - Switch adapted toys, audible sports equipment, various types of stimulating devices
- Daily Living Aids/Health & Wellness
 - Pill dispensers, jar/bottle openers, alarm clocks, deaf signallers, feeding/eating/dressing/grooming aids
 - Apps!
- Environmental Controls
 - X10 (simple)
 - Automated devices – vacuums, door openers, sensors
 - Siri, Google Home, Alexa enabled devices
 - Thermostats, lights, appliances, cameras

Communication

- AAC – Augmented & Alternative Communication
 - All of the ways that someone communicated besides talking
 - AAC can be a supplement to speech and studies show that it does not negatively impact a person's ability to learn to speak
 - Low Tech – PECS
 - Medium Tech – GoTalk, Big Mac, etc
 - High Tech – DynaVox, TalkToMe, Saltillo and many smart devices apps
 - GoTalk Now, Proloquo2Go, Avaz, Snap, TouchChat, Proloquo4Text, FlipWriter



Questions to ask:

Budget? Who pays for it? Medicaid?
Used at home, school or both?
Do I need switches? Eyegaze? Mounting?
Device durability?

Vision Loss ----- Hearing Loss

Vision loss or hearing loss can happen at any age and for many reasons.

“Blind” does not mean “cannot see”, “Deaf” does not mean “cannot hear”

- Low tech magnifying glasses
 - High tech video magnifiers
 - Text to speech
 - Screen enlargement software
 - Braille devices (high and low tech)
 - Talking devices/auditory alerts
 - Apps! iOS is very accessible!
- Hearing aids
 - Amplified devices – phones, FM systems, personal amplification
 - Visual aids – strobe lights, other types of lighting
 - Vibrating alerts
 - TTY/Captions/Relay/Interpreters

AT Demonstrations

- Free, informal exploration of AT devices
- Not a formal recommendation
- “Try it before you buy it”
- Could involve a two week loan of equipment if applicable
- Available to all ages/all disabilities, usually works best at one of our locations by appointment but we are flexible for every situation





Technology Solutions for Life's Limitations

Thank you!

For more information, contact DakotaLink:

1-800-645-0673

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Locations in Rapid City, Sioux Falls, Brookings, Aberdeen