

# Assistive Technology for Wyoming Para-educators

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# Presenters



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**Terri Wofford** is a Speech Language Pathologist at the Wyoming Institute for Disabilities and co-manager of the Wyoming Assistive Technology Resources.

# Disclosure

The Wyoming Assistive Technology Resources is receiving financial reimbursement from Utah State University for today's presentation.



# Learning Objectives

- Participants will be able to identify at least one example of assistive technology that could be used in the educational setting.
  - Participants will be able to identify at least one example of an accessible educational material.
  - Participants will be able to identify how Wyoming residents can borrow assistive technology items.
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# What is assistive technology (AT)?

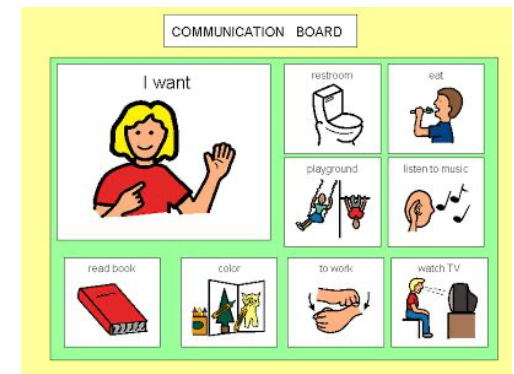
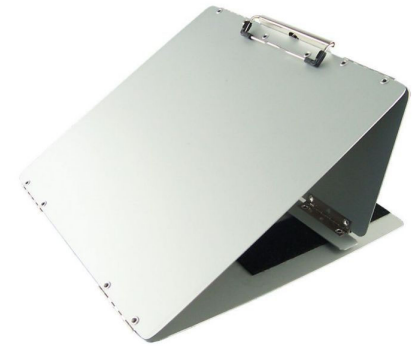
**AT** is any device, tool, software, or solution that helps a person with a disability to work, play, and live independently. Examples include:

- Hearing aids
- Magnifiers
- Communication devices
- Voice recognition (Siri, Alexa, Cortana)



# Low Tech Examples

- Pencil grips
- Weighted utensils
- Magnifying glass
- Communication board
- Color overlays
- Bold or raised line paper
- Ramp



# Mid Tech Examples

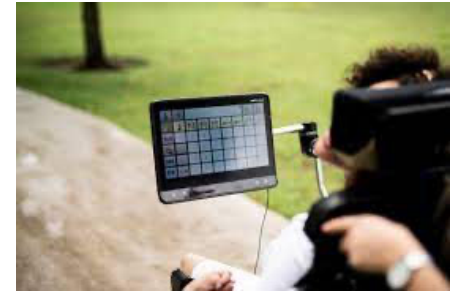
- Digital voice recorder
- Automatic medication dispenser and reminder
- Voice amplifier
- Switches
- Audiobooks
- Alternative mouse or keyboard





# High Tech Examples:

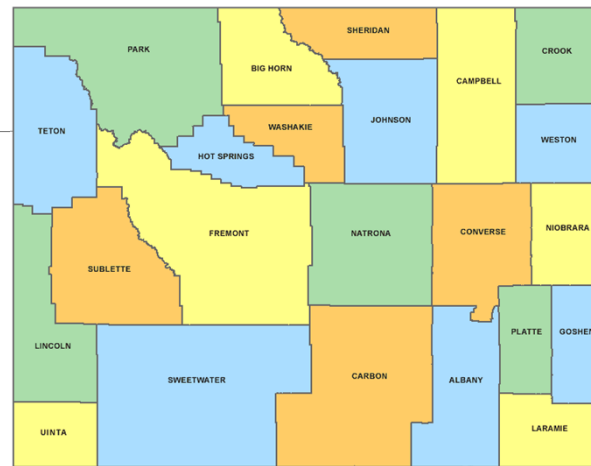
- Computer/Laptop
- Tablet
- Speech generating device
- Eye gaze
- Power wheelchair
- Wearables
- Environmental controls





# What is WATR?

- WATR is Wyoming's AT Act Program, implemented by the Assistive Technology Act of 1998, as amended in 2004
- WATR promotes public awareness of and access to Assistive Technology in Wyoming.
- Serves all Wyoming residents, no proof of disability required



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# WATR Activities

**Public  
Awareness**

**Information & Assistance**



**Device Demonstration**

**Device Loan**




**Device Acquisition**

**Reutilization & Financing**



AT available from  
WATR to support  
education

- Behavior
  - Communication
  - Computers and related accessories
  - Daily living
  - Hearing
  - Learning
  - Mobility & Positioning
  - Recreational
  - Vision
- 

# Wyoming AT4ALL Website

<https://wy.at4all.com/>

Search for:

- Technology for short-term loans
- Technology for sale from reuse



Or:

- Make direct requests for technology.
- List your own items for sale



# WATR Advisory Council

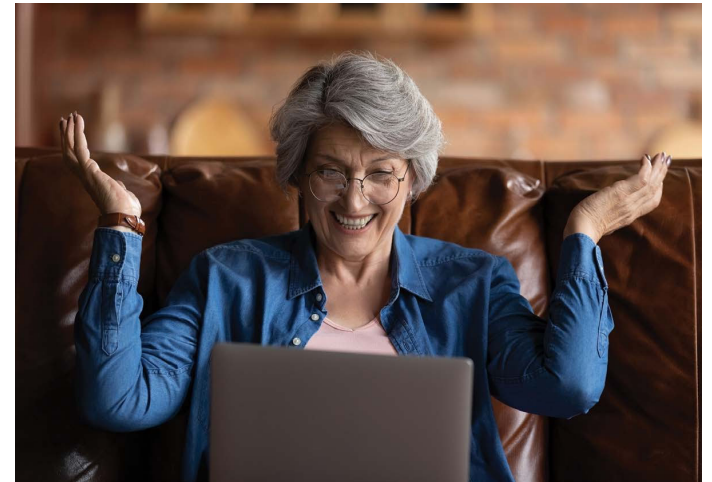
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The **WATR Advisory Council** supports WATR with statewide activities and helps to steer our mission and goals.

- Meet in spring and fall
- In-person or Zoom attendance options
- Reimbursement for travel and lodging expenses

We are looking for new members!

- Individuals with disabilities, self advocates
- Family members of individuals with disabilities
- Service providers
- Educators
- Anyone interested in learning more about AT or supporting WATR

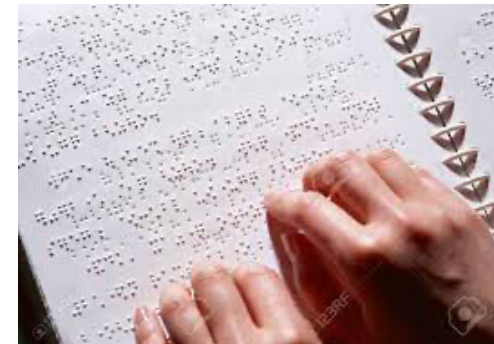
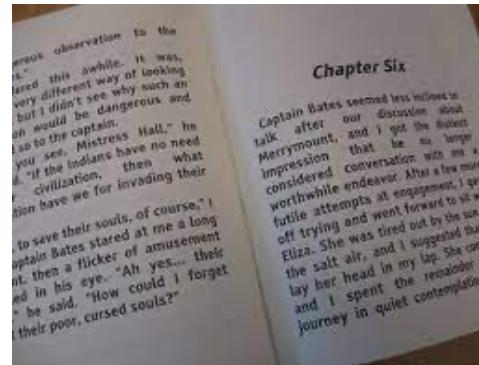


# Accessible Educational Materials (AEM)

**AEM** are print or technology based educational materials provided in an alternate format to students with print disabilities.

Learning disability:

- Visual impairment
- Blindness
- Learning difficulty
- Physical impairment

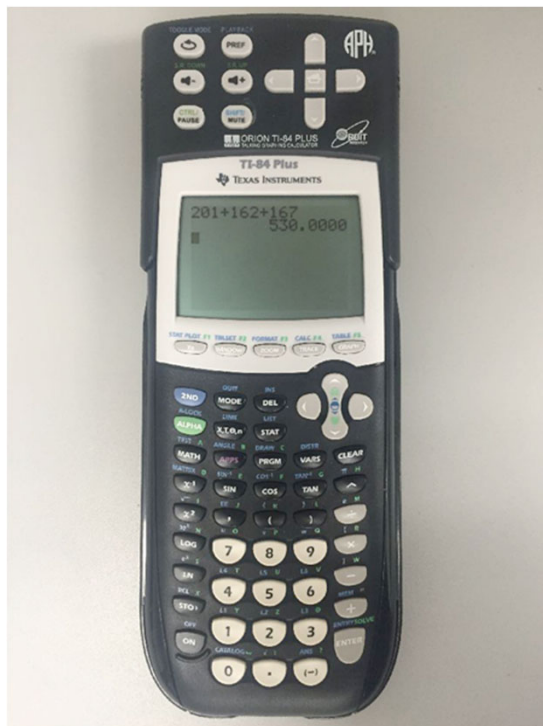


- Hear words and lines of text read aloud
- Built in English, Spanish, French, German, and Italian dictionary
- Scan, store & transfer text to computer
- voice recorder
- “Exam mode”



## C-Pen Reader Pen





- Explore graphs with spoken announcements, audio, and haptic (vibration) feedback
- Tones raise and lower to follow graph coordinates
- As the graph moves below the x-axis, white noise is added to the tone
- Haptic feedback is provided for negative y-coordinates, axes crossings, and tick marks

## Orion TI-84 Plus Talking Graphing Calculator

- 100" print/braille meter tape
- Modified 100 ml and 1000 ml plastic beaker
- (2) graduated cylinders 50 ml and (2) 100 ml w/ large print and braille scale floats
- Histogram board
- Instructions in braille



- Balance
- Funnel stand
- Mass set w/20-, 10-, 5- g pieces
- Mass set with one hundred 1-g pieces
- Talking digital thermometer
- (2) tray liners
- 50 ml syringe with stop
- (4) 9 oz. plastic cups

## Adapted Science Materials Kit

- makes raised line drawings on “capsule” or “swell” paper
  - draw, print or photocopy images onto the swell paper and pass it through the PIAF
  - The heat of the PIAF causes the lines to swell
  - drawing can be read with the fingers
  - Ideal for blind and visually impaired, and tactile learners
- 



## Picture in a Flash (PIAF)



- Audiobook solution for struggling readers
- Human read audiobooks
- Large library of grade-level content and curriculum materials
- Suite of educator resources
- Access through web browsers or app

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# Learning Ally

A solid red horizontal bar spanning the width of the slide, located at the bottom.

- E-book library for students with reading barriers
  - Large library of books, periodicals, magazines, etc.
  - Access books through various apps and web browsers
  - Customize reading experience with font, background colors, highlighting, braille, etc.
  - Free for qualified students
- 



# Bookshare

## Voice Dream Reader

- Import documents, PDFs, web pages, Bookshare books, etc. into app
- Read content with high quality digital voices in many languages and accents
- Customize reading speed, line spacing, font, colors, highlighting, etc.
- Available in iOS app store for \$19.99



## Voice Dream Scanner

- Take pictures of documents, worksheets, books, etc.
- Performs OCR (Optical Character Recognition) so document can be read aloud
- Use as stand-alone app or store files in Voice Dream Reader
- Available on iOS app store for \$9.99



# Voice Dream Reader and Scanner apps

## **National Instructional Materials Accessibility Standard**

- Technical standard used by publishers to produce source files (in XML) that may be used to develop multiple specialized formats for students with print disabilities.
- XML and image source files may be used to create braille, large print, HTML, and DAISY talking books using human voice, digital text-to-speech, and more

## **National Instructional Materials Access Center**

- National repository for NIMAS source files provided by publishers.
- Only students who are dually qualified under IDEA and copyright law are eligible to receive NIMAC files

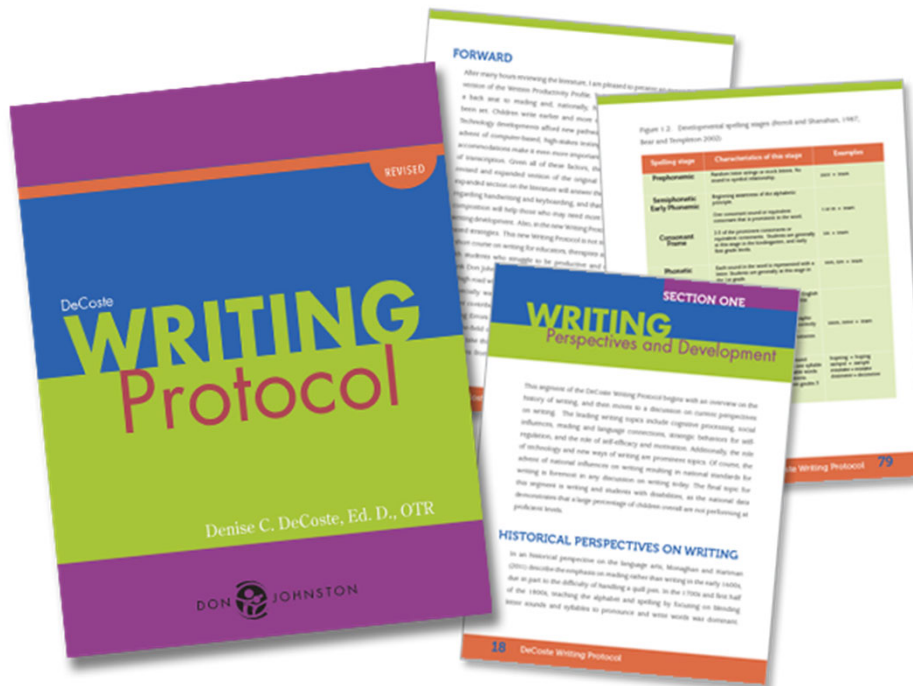


# NIMAS and NIMAC



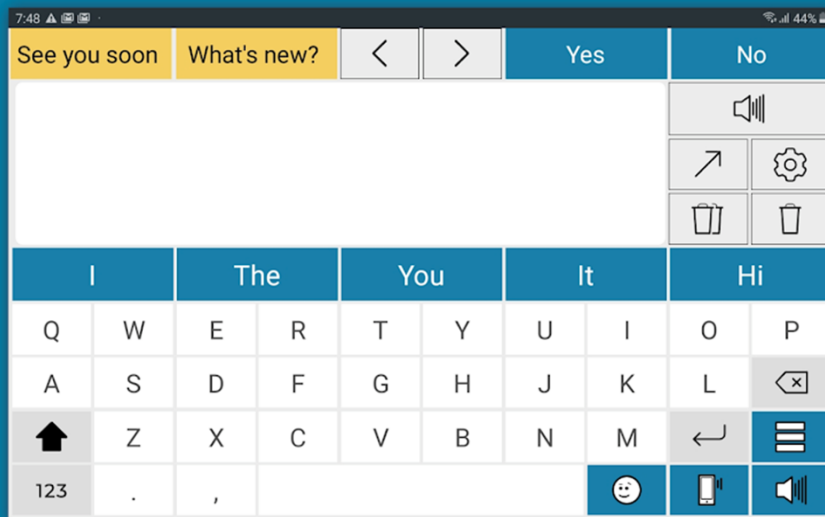
# Writing: Quick Tips

- Team Approach
- Establish a goal (increase speed, decrease spelling errors, increase sentence structure)
- Identify writing challenges
  - Decoste Writing Protocol (Don Johnston)
- Create a plan





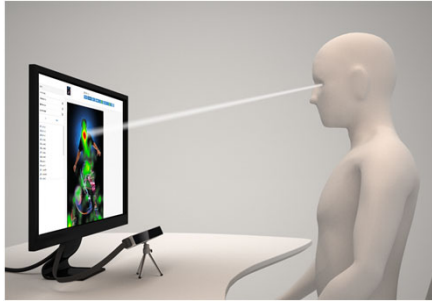
### Smart word prediction to reduce typing effort



# Writing Speed

## Rate Enhancers

- Dictation (Speech-to-Text)
  - Built-in (look for the microphone icon)
  - Dragon (Windows and Mobile devices)
- Abbreviation Expansion
  - LOL=laugh out loud
- Word Prediction
  - Built-in
  - Predictable
  - Co: Writer



## Access to typing for students with physical disabilities

- Head pointer
- Typing aid
- Keyguard
- Eye gaze with onscreen keyboard



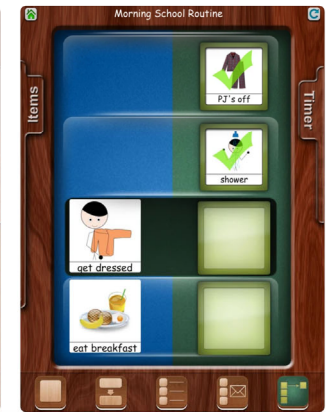
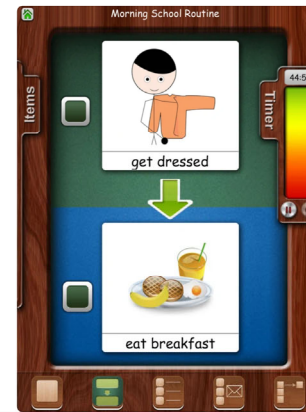
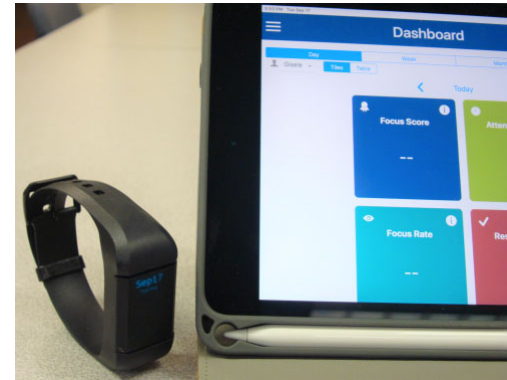
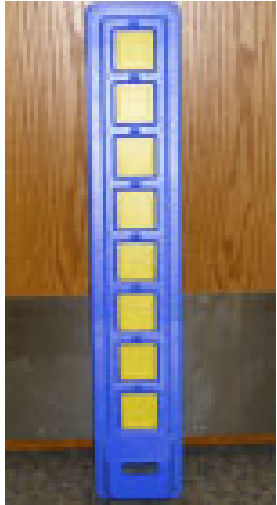
# Writing Comprehension

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**Audio feedback-read out loud (text-to-speech)**

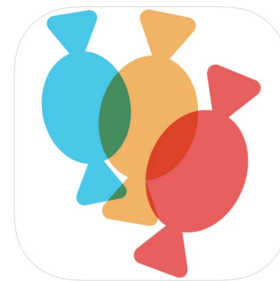
- Co: Writer
  - Talking Word Processor feature
  - DEMO

# AT and Behavioral Supports





# AT and Communication





# UW ECHO in AT network & Continuing Education

<http://www.uwyo.edu/wind/echo/assistive-technology/index.html>

**Sessions are on Thursdays, bi-weekly,  
11:00 a.m. to 12:30 p.m. MT  
via Zoom video conferencing technology**

**Case presentations** offer an opportunity to brainstorm evidence-based solutions or share successes with colleagues and other professionals within the network.

**Continuing Education Credit** for live attendance

<http://www.uwyo.edu/wind/echo/credit-echo-participation.html>

# AT Asynchronous Learning Fall 2021-Summer 2022

<https://wind.catalog.instructure.com/browse/wind/watr/echo/courses/uw-echo-in-atasynchronous-20212022>

The ECHO in AT Asynchronous 2021-2022 course provides online training and best practices for the consideration, implementation, and evaluation of Assistive Technology. The course allows Wyoming residents to earn one contact hour of continuing education for each successfully completed module.

# Tiered AT & AAC Assessments with the District Team

<http://www.uwyo.edu/wind/WAC%20AT%20assessments/index.html>

Wyoming Assistive Technology Resources (WATR) provides assistance in identifying appropriate assistive technology (AT) and/or augmentative alternative communication (AAC) for yourself, your student/client, or family.

# WATR Contact Information

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