

# Technology for Learning

## Demystifying Access Technologies

# Why AT?

For people without disabilities, technology makes things easier.

For people with disabilities, technology makes things possible.

Judy Heumann

# What is Assistive Technology?

Any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

Can you think of examples of the following technologies?

Speech Recognition

Text to Speech

Word Prediction

On-screen keyboard



# History of Legislation



Section 504 of the Rehabilitation Act (1973) &  
Americans with Disabilities Act (1990)  
require that Educational Institutions provide  
Assistive Technology (AT) when appropriate.

# Technology Act of 1988

Provided legal definitions for assistive technology services and devices

Allocated funds to assist states in developing and implementing technology-related disability assistance programs

# Assistive Technology Act of 2004

Provision of AT devices and AT services would enable individuals with disabilities to:

- have greater control over their own lives

- participate in and contribute more fully to activities in their home, school, community and work environments

- benefit from opportunities that are taken for granted by individuals who do not have disabilities

# Assistive Technology Act of 2004

High and low technology and adaptations  
would substantially benefit the nation  
by reducing dependency costs  
at work and home.

# Assistive Technology Categories and Concepts

Mobility

Cognitive

Communication

Sensory



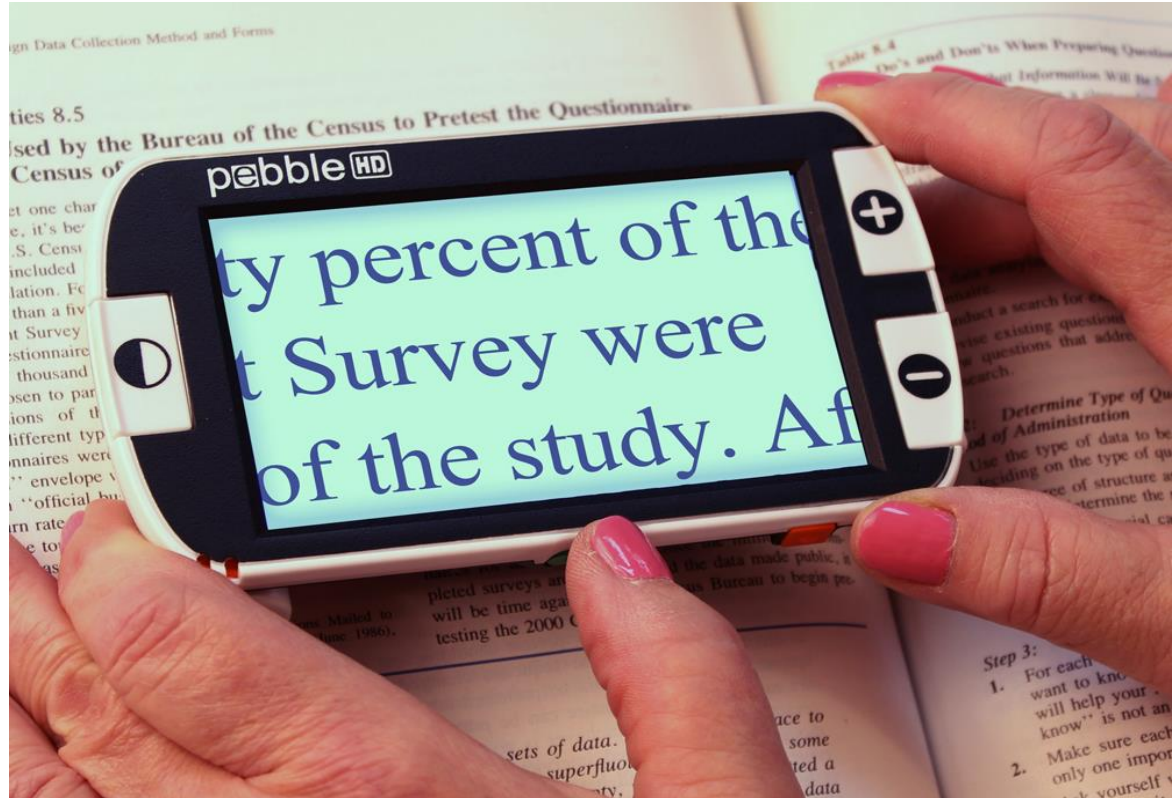
Augmentative Communication  
Education & Learning  
Computer Access  
Seating & Positioning  
Mobility  
Daily Living



# Simple things...



# A Little More Complex...



# Alternative Keyboards



[Keys-U-See large print  
USB keyboard](#)

EASY TO SEE

Split Keyboard



Datalux space-saving USB  
keyboard



scroll mouse



4D finger scroll mouse



Evoluent VerticalMouse





# FM System



# AT and Universal Design

“The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”

Ron Mace

# Technology for LD

Reading software

Spelling/grammar support

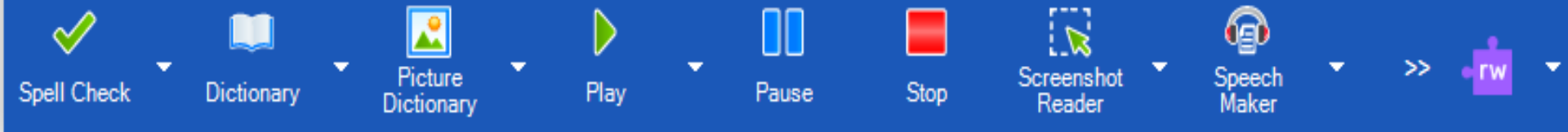
Speech recognition software

Word prediction

Masking/tracking

Magnification

Multi-modal reading



# Read and Write

- Read documents out loud
- Voice Typing
- Word prediction
- Screen Masking
- Highlight
- Extract vocabulary lists

Read and Write Chrome  
Extension



# Speech Recognition

Google Voice Typing

Windows Speech Recognition

Dragon Naturally Speaking

Mobile Assistants-Siri, Cortana etc

# E-Text and Alt Format

Alternative format might be anything from large print hard copy to a text file on a computer.

Electronic text pertains to files that can be read on a computer or other electronics.

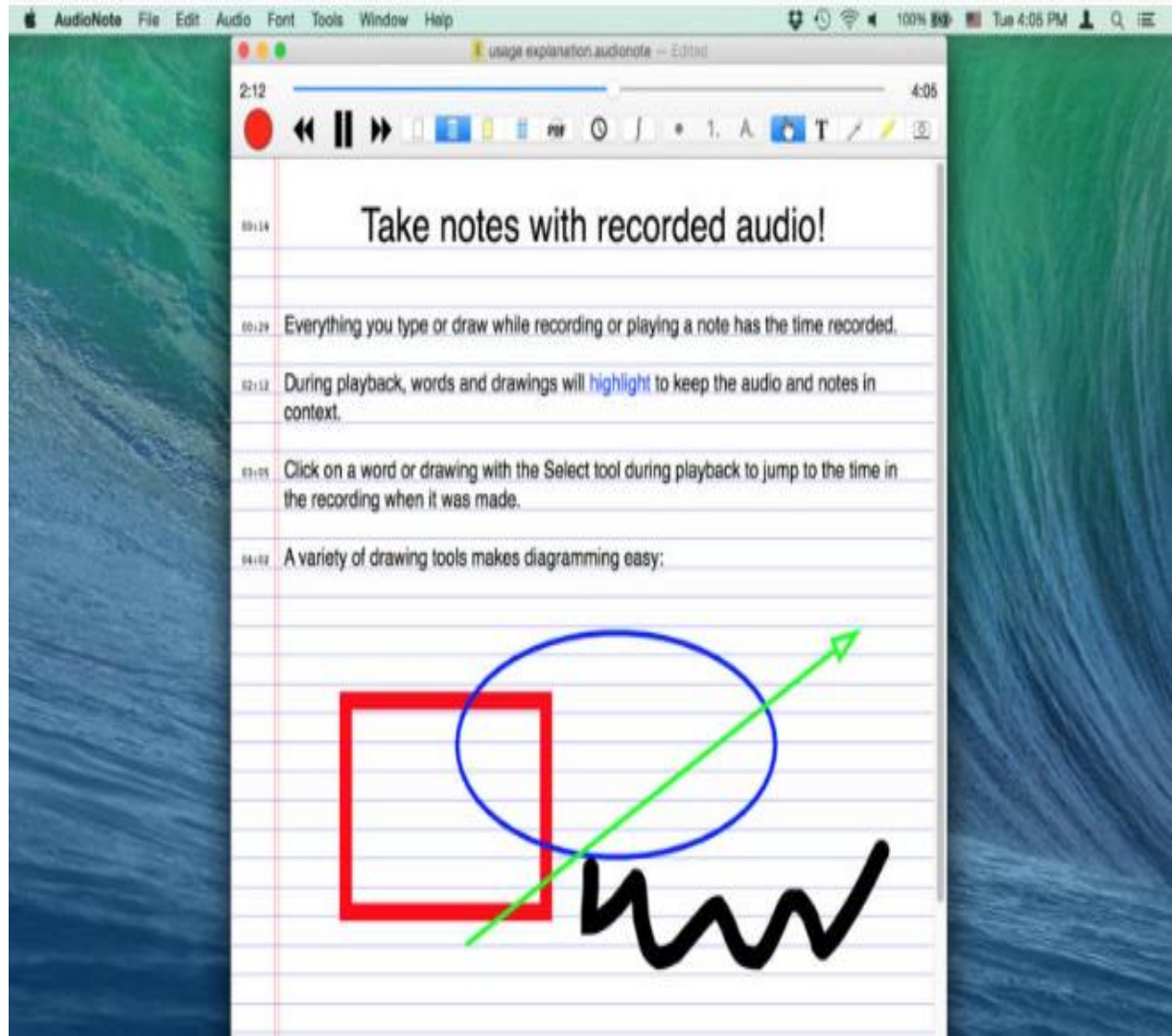
# Note Taking

## └ Livescribe Pen



# Note Taking

AudioNote -  
Notepad and Voice  
Recorder



# Writing Supports

Assistive technology may complement skills learned from tutors/Tutoring Center:

Read and Write (again!)

Ginger-**Ginger offers spelling and grammar checker, dictionary, translation, synonyms.**

Grammarly- **Online proofreading tool that checks text for grammar, punctuation, and style,**

Inspiration/Webspiration - **Concept mapping software**

Use any of the Audio tools to proof-read by listening.

# Resources for Trying AT

Oregon Technology Access Program (to age 21)

<http://www.douglasesd.k12.or.us/otap>

Access Technologies Inc. (rental library)

<https://accesstechnologiesinc.org/>

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