

All About Computer Access

Adaptations & Alternatives to the Standard Keyboard & Mouse

Webinar by:

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www.kellyfonner.com 2012



After Today's Session

✓ Email --

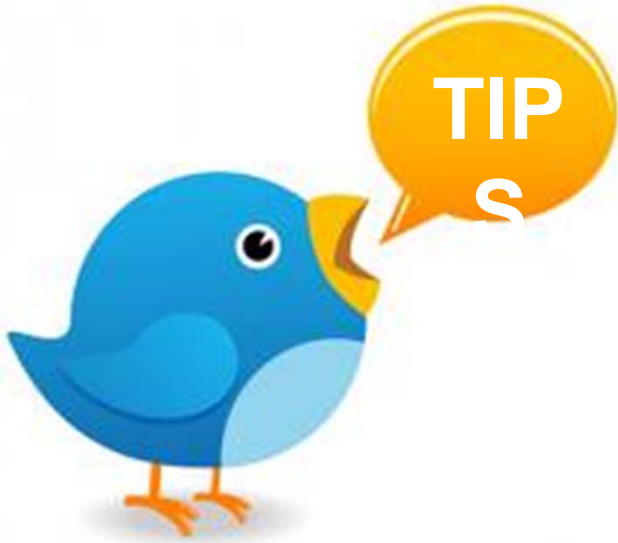
- PDF of the presentation slides
- Certificate of attendance
- Additional handouts
- Product video demo links!
- Special offer



✓ Link to recording of this webinar session

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- Maximize your screen view by clicking on the link in the upper right corner.
- Close any other applications you are running that use bandwidth.
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- **Audio cutting in & out?** Click “Mute Audio.” Wait several seconds & then click “Play Audio” to reestablish the broadcast audio feed.

Assistive Technology

- Access Technologies for Vision Impairment
- Assistive Listening
- Augmentative & Alternative Communication
- Electronic Aids of Daily Living
- Organizational Assistants
- Seating, Positioning & Powered Mobility
- Writing Adaptations



Ablenet Computer Access

Ablenet Computer Access Connections Strategies

For persons with disabilities, computers open up worlds. Through the computer and over the internet, disabilities may seem to reveal the person's true gifts and talents. But for many, accessing a computer through a traditional keyboard, mouse, and screen is a challenge, if not an impossibility. That's why Ablenet has developed a full line of computer access products and alternative input technology to remove these barriers.

1. What computer functions do you want to control—keyboard, mouse, pointer, cursor, scrolling software?
2. What is the activation method—direct, head movement, muscle contraction, external switch?
3. Do the products need to be programmed for use?
4. Do you need successful interaction with products?

Common Situations

| Situation | Applied Technology | AT Solution |
|---|---|---|
|  <p>Person with hearing impairment who cannot hear the audio portion of a video conference or lecture.</p> | <ul style="list-style-type: none"> 1. Screen reader 2. On-screen keyboard and mouse 3. Text-to-speech software |  <p>Ablenet AT Solutions</p> |
|  <p>Person with limited hand strength who cannot click a mouse or use a keyboard.</p> | <ul style="list-style-type: none"> 1. Screen reader 2. On-screen keyboard and mouse 3. Text-to-speech software |  <p>Ablenet AT Solutions</p> |
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TrackPoint
 A small, trackball-like device that can be used to control the cursor on the screen. It is often used in conjunction with a mouse.

Mouse
 A device that is used to control the cursor on the screen. It is often used in conjunction with a keyboard.

Joystick
 A device that is used to control the cursor on the screen. It is often used in conjunction with a keyboard.

Switch
 A device that is used to control the cursor on the screen. It is often used in conjunction with a keyboard.

Smartphone
 A mobile device that can be used to control the cursor on the screen. It is often used in conjunction with a keyboard.

Joystick
 A device that is used to control the cursor on the screen. It is often used in conjunction with a keyboard.

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POLL:

How Many of You are...

1. Administrator
2. Assistive Technology Specialist
3. Consumer of A.T.
4. Family Member / Care Giver
5. Occupational Therapist
6. Physical Therapist
7. Sales Representative
8. Speech/ Language Pathologist
9. Teacher
10. Other

Click on your role



What is Computer Access?

- **Adaptations to the Standard Keyboard**
- **Keyboard Alternatives**
- **Mice Alternatives**
- **Rate Enhancements**
- **Adaptations to the Display**
- **Screen Enlargers & Readers**



What is Computer Access?

- ➔ Adaptations to the Standard Keyboard
- ➔ Keyboard Alternatives
- ➔ Mice Alternatives
 - Rate Enhancements
 - Adaptations to the Display
 - Screen Enlargers & Readers

During this session we'll spotlight products & strategies in these categories.



Computer Access Input Options include:

- **Adaptations to the Standard Keyboard**
- **Keyboard Alternatives including:**
 - Keyboards of other sizes & shapes
 - Keyboards that appear on the monitor
 - Hands Free Text & Command Entry
- **Mice Alternatives including:**
 - Mice with Programmable Buttons, Trackballs
 - Hands Free Mouse Movers



Why Provide Alternative Access to the Computer?

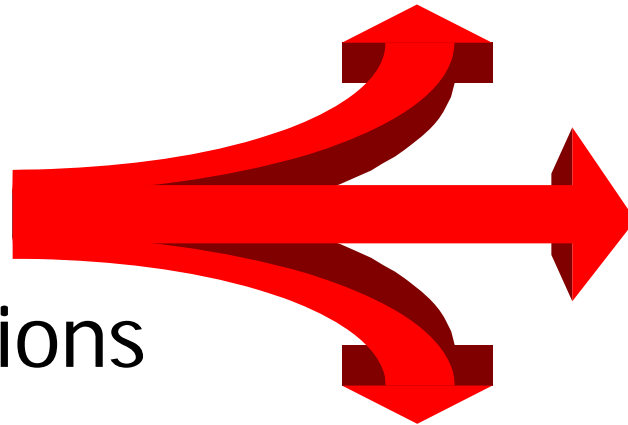
- **Alternative to Handwriting**
- **Access to Standard Applications**
- **Organizational Applications (Schedules, Planners, Expense Reports)**
- **Educational Programs**
- **Rehabilitative & Developmental Training Programs**
- **Access to the Internet, Email & Gaming**



Computer Access Assessment Feature Match Process

Individual

- Needs
- Abilities
- Expectations



Technology

- Interface/Input
- Processing
- Output
- Other Properties



The Human / Technology Interface (**Input**)

- Assisted Keyboard
- On-Screen Keyboard
- Mouse Pointer & Control Systems
- Alternative Keyboard
- Voice Recognition
- Eye-Gaze
- Hand Control
- Mind Control
- Keyboard Emulation (ASCII)
- Switch Access
 - Direct Switch Interface
 - Scanning
 - Morse Code
 - Auditory Scanning



POLL:

How Many of You are using ...

1. MAC
2. WINDOWS
3. both
4. LINUX
5. other



**Click on the brand of computer operating system
used in your agency/school**

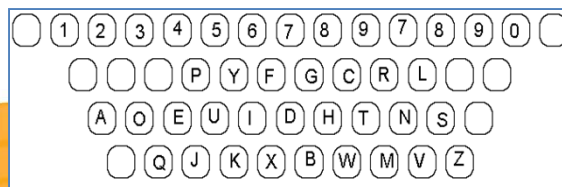


Assisted Keyboard

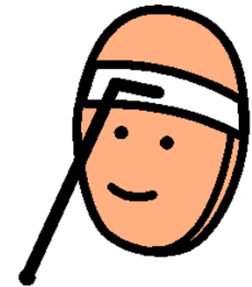
Adaptations to the Standard Keyboard

- Features

- Acceptance Delays
- Key Latching
- Rearranged Keys
- Click or Speech Feedback
- Scripts & Macros
- Defined Messages
- Set Screen Locators
- Mouse Keys & Commands



Dvorak Layout



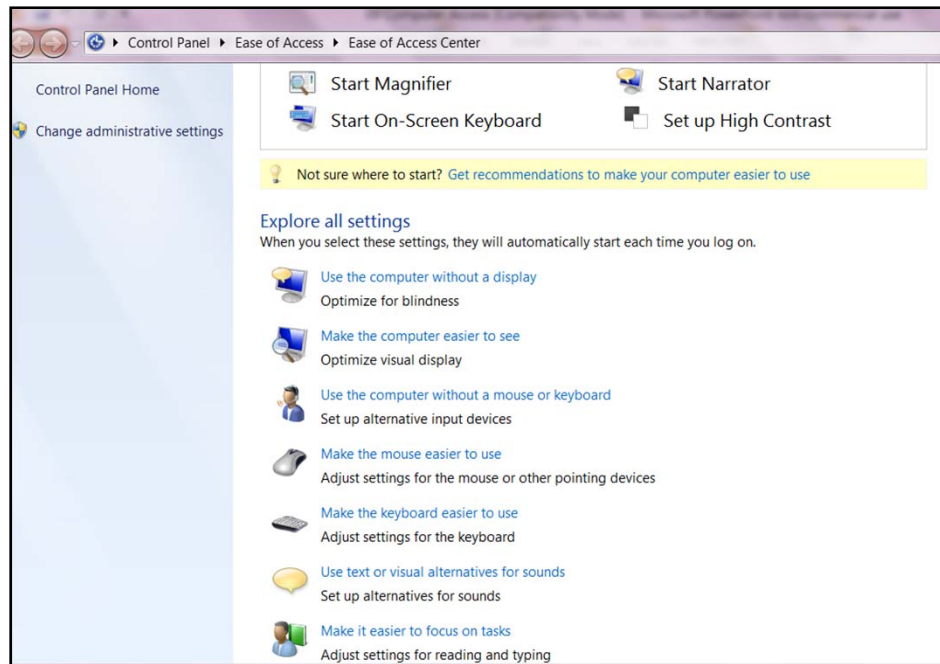
- Product Examples

- Wrist Rests
- Key Caps
- Dvorak Keyboard Layout
- Sticky Keys
- Hand/Head/Mouth Stick
- Moisture Guards
- Keyguards
- Mouse Keys

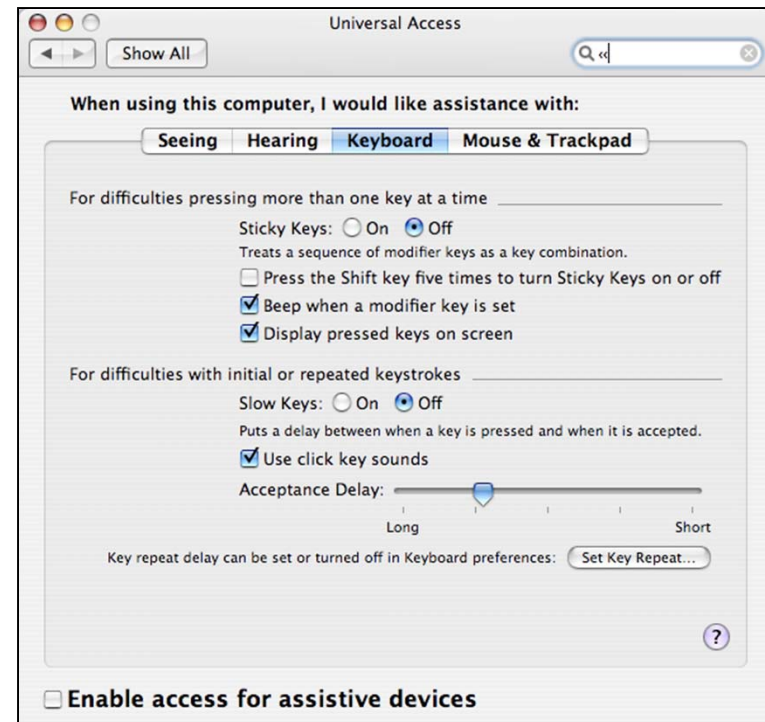


Built-In Access to Operating Systems

Windows Ease of Access



Mac Universal Access



Alternate Keyboards

Keyboards of other Sizes & Shapes

- Features

- Large or Smaller than typical keyboard
- Block format or Shaped to fit Hands
- Flat Membrane surface or typical movable keys
- Static or Variable Key Size
- Static or Programmable
- Text Only or with Mouse Control
- Silent, Click or Speech Feedback



OnScreen Keyboards

Keyboards that Appear on the Monitor

- Features
 - May include Letter, Number &/or Function Keys
 - May assist in Mouse Emulation
 - May include Pictures / Symbols / Images
 - Static or Variable Key Size
 - Static or Programmable Key Functions
 - Silent, Click or Speech Feedback
 - May include Scripts and/or Macros



Mouse & Mouse Emulators

Products that Control the Mouse Pointer

- Features
 - Mouse Movements and/ or Mouse Functions
 - Controlled by Head, Hand, Foot, Tongue or other Body Movements
 - May be Ergonomically Designed
 - May have Mouse Speed Controls



Mouse & Mouse Emulators

Products that Control the Mouse Pointer

- Features
 - May have Mouse Speed Controls
 - 1 button for Click, 2 Buttons or more
 - Typical Functions or Programmable Scripts & Macros
 - May include additional Switch Ports for Controls by Switch(es)

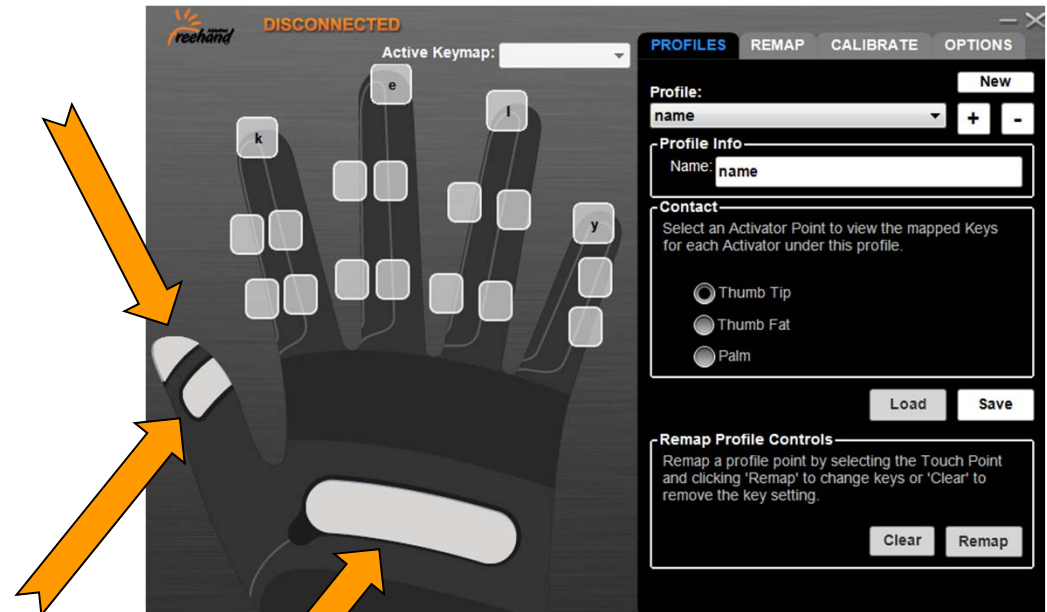


Other Alternate Input Devices

Keyboard & Mouse Emulation



- Features
 - May be Voice Controlled (Voice Recognition)
 - Eye Controlled (Eye-Gaze Systems)
 - Brain Wave Activity
 - Hand Motion (FreeHand)
 - Sometimes interfaces with an OnScreen Keyboard
 - May be Programmable or Static Set of Commands
 - May do Keyboard and/or Mouse Functions



Switch Access

Switches connected to computer through an interface

- **Switches Used**
 - Single Switch
 - 2 Switch (dual)
 - 3 Switch
 - Multiple (5+)
- **Switch Input**
 - Direct Selection
 - Directed Scanning
 - Scanning
 - Morse Code
- **Features**
 - Static
 - Programmable



Switch Access

Switches in conjunction with a scanning array



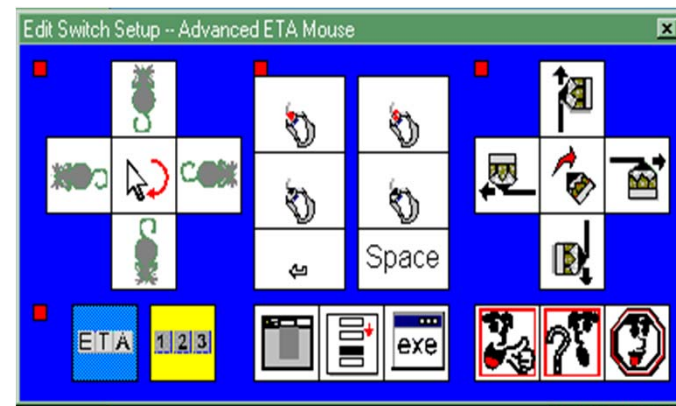
- **Types of Scanning**
 - Linear
 - Row/Column
 - Column/Row
 - Group/Block
- **Methods of Scanning**
 - Automatic
 - Ongoing
 - Step
 - Inverse
 - Auditory

Scanning Arrays

OnScreen Keyboards that are activated by a Switch

- **Features**
 - May include Letters, Pictures, Numbers, Functions &/or Mouse Keys
 - Static or Variable Key Size
 - Static or Programmable
 - Silent, Click or Speech Feedback
 - May include Scripts & Macros, Defined Messages, Screen Locators

| | | | | | | | | | |
|-------|---|---|---|---|---|---|-----|------|---|
| Space | E | A | R | D | U | V | ↑ | Alt | |
| T | O | I | L | G | K | | ↵ | | |
| N | S | F | Y | X | . | / | x→ | | |
| H | C | P | J | ' | " | : | . | | |
| M | W | Q | . | , | ? | ! | Esc | Exit | ^ |
| B | Z | | ← | ↑ | ↓ | → | | | |



Next Steps in Computer Access:



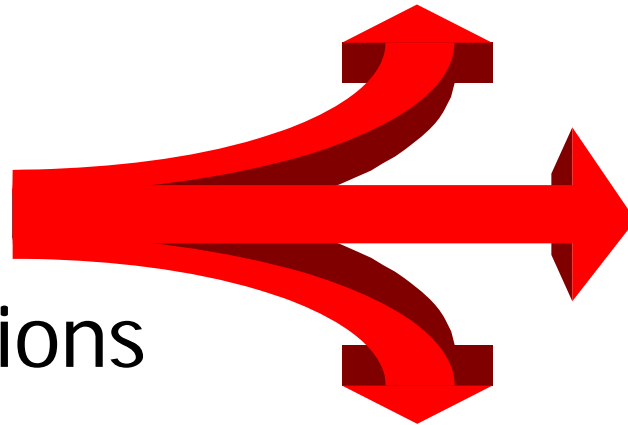
- Rate Enhancements
- Layouts for Speed/Efficiency
- Writing/Literacy Utilities
- Symbol Supports
- Macros
- Auditory Supports for Feedback/Efficiency
- Output Alternatives



Computer Access Assessment Feature Match Process

Individual

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Technology

- Interface/Input
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- Other Properties



POLL:

As we near the end

For future sessions... What do you need to get more information about?

- 1. Switch Access to Computers for switch accessible software**
- 2. Switch Access to Computers for non-preprogrammed software**
- 3. Alternative Access to iPad**

Click next to the topic(s) that interest you – thanks!



Searching for Computer Access Products?

- **Abledata**

www.abledata.com

- **Closing The Gap - Solutions**

www.closingthegap.com/solutions



Thank you!

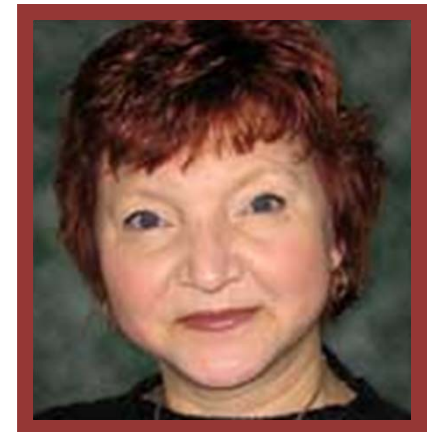
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