


Where Rehabilitation,
Science and Technology
changes lives!

Department of Rehabilitation
Science and Technology

School of Health and
Rehabilitation Sciences



**Computer
Access/Applications for
Veterans with Polytrauma**

VA-PRC 9th Virtual Grand Rounds

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Learning Objectives

- Identify commercially available alternative mouse options
- Recognize some of the commercially available means of text entry
- Describe at least 2 programs/applications designed to assist individuals with learning disabilities that include head injuries and visual deficits
- Identify key factors to consider when recommending a computer access solution

Computer Access Definition

Computer Access is a term usually used to refer to a specialized group of hardware and software designed to enable individuals with a wide range of disabilities to use a personal computer.



TWO PRIMARY AREAS TO BE ADDRESSED WHEN PERFORMING A COMPUTER ACCESS EVALUATION:

- * Mouse Operations (pointing, clicking, dragging, etc)
- * Text Entry (numbers and letters)



Commercially Available Products





RollerMouse



Additional Mice



ROLLER II TRACKBALL/JOYSTICK

Penny and Giles' Roller II line are sturdy three-button switch adaptable pointing devices. They come in either a large 2.5" trackball or a 3" joystick. They have separate buttons for left click, right click and drag back with color corresponding switch ports on the back of the units. A flashing light indicates the drag button has been activated. The Roller II products include a keyboard to help users isolate on the buttons. The Joystick comes with two alternative handles to accommodate different input needs, 4-Bar and Soft Sponge Ball.

Roller II Trackball.....\$ 175.00
Roller II Joystick.....\$ 225.00

Platform: PC, MAC
Connection: PS2/USB



ROLLER PLUS TRACKBALL/JOYSTICK

Penny and Giles' Roller Plus line are the most adaptable mouse substitutes on the market. Available in a 2.5" trackball or a 3" joystick, they have six buttons that support left and right click, double click, drag lock, horizontal and vertical lock and cursor speed control. A flashing light indicates the drag button has been activated. The Roller Plus products include a keyboard to help users isolate on the buttons. The Joystick comes with two alternative handles to accommodate different input needs, 4-Bar and Soft Sponge Ball. Switches can be easily connected to emulate the mouse buttons with the Roller Plus Switch Box (sold separately).

Roller Plus Trackball.....\$ 345.00
Roller Plus Joystick.....\$ 395.00
Platform: PC, MAC
Connection: PS2/USB
Roller Plus Switch Box.....\$ 39.00



Alternative Mouse Inputs



Foottime Foot Mouse

Mouse Button-Box

QUADJOY

Quadjoy™ is a joystick operated two-button mouse and on screen keyboard (ships with OnScreen). The joystick is controlled with your mouth or chin. The farther you move the joystick, the faster the cursor moves. Mouse button activation can be made with the built in sip and puff switch, a switch with the external switch jack (sold separately) or manually with the actual mouse buttons for able body assistants. The button action is softer than sipping from a straw. Quadjoy can be mounted to most flat surfaces and is assembled to mount on the right hand side of the user.

Quadjoy \$ 545.00
Platform: PC
Connection: Serial/PS2
External Switch Jack \$ 35.00



IntegraMouse



Jouse



HeadMouse

Head-Controlled Pointing for People with Disabilities
The HeadMouse is a sip-and-puff controlled mouse that can be used with a variety of computers and operating systems. It is designed for people who have difficulty using a standard mouse. The HeadMouse is a small, lightweight device that can be mounted to a headband or a stand. It features a joystick that can be controlled with a sip or a puff of air. The HeadMouse also has two buttons that can be controlled with a sip or a puff of air. The HeadMouse is a versatile device that can be used with a variety of computers and operating systems. It is a great option for people who have difficulty using a standard mouse.

HeadMouse for Portables
The HeadMouse is also available in a portable version. This version is designed for use with laptops and other portable devices. It is a small, lightweight device that can be mounted to a headband or a stand. It features a joystick that can be controlled with a sip or a puff of air. The HeadMouse also has two buttons that can be controlled with a sip or a puff of air. The HeadMouse is a versatile device that can be used with a variety of computers and operating systems. It is a great option for people who have difficulty using a standard mouse.

Excellent Companion for Assistive Communication Devices
The HeadMouse is also an excellent companion for assistive communication devices. It can be used to control a variety of communication devices, including speech-generating devices and text-to-speech devices. The HeadMouse is a versatile device that can be used with a variety of computers and operating systems. It is a great option for people who have difficulty using a standard mouse.

Origin Instruments
Origin Instruments is a company that specializes in the design and manufacture of assistive technology. They have a long history of providing high-quality products to people with disabilities. The HeadMouse is one of their most popular products. It is a versatile device that can be used with a variety of computers and operating systems. It is a great option for people who have difficulty using a standard mouse.

Text Entry

"One-Handed" Keyboards



Half-QWERTY Keyboard



Reduced Size Keyboards

Low Profile Keyboard



Enlarged Keyboards



IntelliKeys

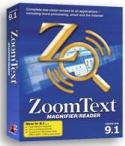


Big Keys

Keyboards for Low Vision



Keyboards/Software to assist low vision clients



MaGIC:



Voice Recognition Dragon Naturally Speaking Version 11 (Version 11.5 is now available)



Dragon NaturallySpeaking 11 Premium
with Bluetooth Headset



Dragon Professional



Dragon Dictate for
Mac

On-Screen Keyboards: Directed Scanning



WVIVIK3

Prentke Romich's Wvivi3 comes with over 50 different keyboards, available in 22 languages. The keyboards can be customized to contain any keys you want, moved anywhere on the screen and re-sized. Included is word prediction, abbreviation expansion, dwell selection and scanning. Scanning lets you use a pointing device or a switch to select keys. It supports automatic, step or direct scanning.

WVIV3 Platform: WIN \$ 350.00



REACH



SofType



E-Z Keys and Talking Screen

Communication Software Exclusively From Words.

I am a teacher and my class is composed of the students. I have a computer and my students have a computer. I want to help my students to learn.

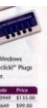
All 20 key software program can be purchased separately and used on virtually any computer with a Windows based operating system.

E-Z Keys

E-Z Keys provides the student user with the ability to communicate with a computer. It allows the student to communicate with the computer and the computer to communicate with the student. It is a simple, easy-to-use, and effective communication system.

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X-KEYS USB SWITCH INTERFACE

X-Keys USB Switch Interface allows you to plug in up to twelve switches to activate keyboard and mouse commands of up to 900 characters. It is easy to install, simple to use and compatible with a wide range of computers and application programs.

X-Keys USB Switch Interface\$ 105.00

Platform: PC/MAC
Connection: USB



USB SWITCH INTERFACE

QuizWORKS' USB Switch Interface gives you single switch access on USB Macintosh or PC computers. You can connect up to 5 standard switches. There are 4 templates to choose from. Changing templates is easy with the touch of a button. Just plug in the USB Switch Interface, a single switch and within a few seconds you will be able to run all kinds of single switch software designed especially for special needs students.

Software/Hardware to help Individuals with Learning Disabilities

CAMBIUM LEARNING TECHNOLOGIES ANNOUNCES KURZWEIL 3000™ VERSION 12

More than a text reader. . .

Kurzweil 3000 Version 12 for Windows is an Integrated Literacy Solution



The Strangest Web
In a dark corner, you may
discover materials. So hard,
When you break into it, you
get it in a spider web! This web
is Super Webs.
Now did the web get there? Spiders spin these webs.



WINN 6.1 Helps Students Meet NCLB Requirements

New Web-based Features & Support of National Technology Standards

WinWin 6.1 Features

WinWin 6.1 Features

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NEW! Read&Write 10 GOLD

Helping All Readers and Writers Succeed

Read&Write GOLD is a customizable easy-to-use **toolbar** that directly integrates with familiar applications, including Microsoft Word, Internet Explorer, and Adobe Reader, allowing students to access the support tools they need from within the programs they use every day. The product highlights and reads text aloud using natural sounding voices and also includes a comprehensive set of support tools for reading, writing, studying, research, and test taking.

WordQ+SpeakQ is the first and only writing tool that integrates word prediction, spoken feedback, and speech recognition



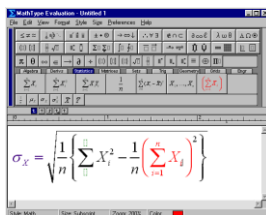
SmartPen



MathType - Professional
Version of Equation Editor



If you are familiar with our Equation Editor included in Microsoft Office and other products, then you will really appreciate MathType's extra features. It will let you create a wider range of equations for a wider range of documents, and help you work much more efficiently. We've added an enormous amount of functionality that effectively transforms Microsoft Word into a state-of-the-art math word processor and Web page editor.





COMPUTER ACCESS INTEGRATED WITH OTHER ASSISTIVE TECHNOLOGY



Blue Tooth Mouse built into power wheelchair electronics





Invacare System



Case Study #1

Brian: 50-year-old male with a C4-5 Level Spinal Cord Injury, President of a Home Health Care Agency. Several years post-injury, update assistive technology

Recommendations

- Permobil Blue Tooth Module
- New Laptop Computer
- SAJE Communicator/Office Mate
- Dragon NaturallySpeaking (Version 11)
- RollerMouse
- Low Profile Keyboard
- Dragger32 software
- (Work desktop computer is relatively new)

SAJE
Technology
"Your Voice To Independence"



Office Mate





Case Study #2:

Kelly: 18-year-old female with Learning Disabilities, Transitioning from High School to College



Recommendations

- Laptop Computer
- Kurzweil 3000 Learn Station
- WordQ
- Dragon NaturallySpeaking (Version 11, Premium Edition)
- SmartPen



Case Study #3:

Christina: 55-year-old female with MS, she would like to continue working as an Office Manager for a construction company.

Recommendations

- Steelcase Leap Chair
- Air Touch Sit-to-Stand Table
- Logitech Trackman
- Kensington Expert Mouse trackball
- Dragon NaturallySpeaking (Version 11)
- Gel Wrist Rests
- (Existing Desktop Computer is adequate)



Factors to consider when putting together computer system recommendations

- Client Goals
- Windows or Macintosh based system
- Where will the system be used (home, school, work)
- Desktop vs Laptop vs Tablet based system
- Client's prognosis
- Client's cognition
- Expense of the system and the funding source



Current Laptop Computer Specs

The laptop computer should meet the following minimum system specifications:

- Intel i3 or i5 Processor
- 4GB Memory (Expandable at least 8GB)
- 250 GB Hard Drive
- 15" Active matrix display
- Integrated DVD/CD-RW combo drive
- Integrated ethernet adapter and Wireless-Lan Blue-Tooth
- USB 2.0 port(s) at least two
- External monitor port
- Built in sound card with external microphone/speaker ports
- Integrated touchpad mouse
- Lithium ion battery with AC adapter
- Windows 7 Operating system (64-bit version or Professional version & higher)
- Microsoft Office 2010
- Internet security (virus protection/spyware blocker/firewall)
- Carrying case

NOTE: a printer (or an All-in-One) is also suggested to enable the protection of hard copies for his/her work



Thank you...Any Questions

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