Assistive Technology

Brandon Cassady
UW-W CSD Assistive Technology Center
UW-Whitewater
800 West Main Street
Whitewater, WI 53190-1790
CSDTech@uww.edu
(262)-472-5243
What is assistive technology?

-Wikipedia defines assistive technology as:

“…an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with disabilities and also includes the process used in selecting, locating, and using them.”
What is assistive technology? (cont’d)

-Really all technology is assistive technology; the intersection between the user’s abilities and the task that they want to complete is what determines which technology will be used.

-Computers!
Types of Assistive Technology
Mobility Aids

- Wheelchair Basketball

- Yellowstone

https://youtu.be/G7kqsco9p_4
Mobility Aids Cont’d

-Not just wheelchairs!

-Crutches
-Walkers
-Segways
-Scooters
C-Print

-What is C-Print?
-Real-time transcription software used by sign language interpreters to convey lectures to deaf/hard-of-hearing students
What are assistive listening devices?

- FM radio devices
- Digital infrared devices
- Lecturer wears small transmitter while speaking, and sound is transmitted directly to the listener’s hearing aid
Text Enlargements/ZoomText

- Enable students with visual impairments to access typed or printed materials
- All PCs, Macs, & other devices also have built-in magnification software
Imagine the difference this makes for someone with a visual impairment who needs to access their school work!
JAWS

-Job Access With Speech for people who are blind or partially sighted
Braille

- Braillenote
- Brailler Printers
- Duxbury
- Tactile View
Dragon Naturally Speaking

-Dragon Naturally Speaking is an advanced speech recognition software package developed by Nuance Communications.

-At CSD, Dragon is available in the three private testing rooms.

-Smartphones and many computers also have built-in speech recognition software.
Technologies & Devices Offered Through the Assistive Technology Center
Kurzweil

-Kurzweil is a text-to-speech program that can be used to view textbooks and other materials in an electronic format.

-Different versions (PC/Mac/Firefly)

-Audio-visual: shown to increase comprehension and retention by 75%
IPHONE/IPAD

EVER USE SIRI?
SPEAK SELECTION CAN “READ AND HIGHLIGHT” ANYTHING YOU WOULD
Audio Notetaker

- It takes more cognitive effort to take notes from a lecture than it takes to play chess (Piolat, Olive, and Kellogg, (2004)).
- What does it do?
THE SAMPLER

- Music is looped in and played back but doesn’t generate sounds
- Preceded tool in the birth and development of Hip Hop
- Modern music & sampling

18 Landmark moments in sampling:

Documentaries and examples of Amen break:

THE UK RAVE SCENE AND THE AMEN

- Advances in Sampling:
  - Basic
  - Complex
- Jungle:
  - Raving
  - Dripping
  - Example idw1

The Amen break is so closely associated with Jungle that Jungle breaks are known as Amen Breaks.

Breakbeat (genre): Originated - US - 1970s. Some say invented by Frankie Bones with his track Bones Break

Commercially produced music in part realized with a sampler. Amen Break one of first drum samples to be experimented with. One bar loop.

Quick playback and arrangement: Sampler and turntable - largely responsible for birth of Hip Hop

Now most commercially produced music in part realized with a sampler. Amen Break one of first drum samples to be experimented with.


Dubplates allowed rapid turn around of music
Livescribe

-What is a SmartPen?

-How does it work?
What will assistive technology look like 25-50 years from now?
Questions?