Assistive Technology– Standard and Specialized Technology to Support Engagement

WEEK 2

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POWER UP
OCCUPATIONAL THERAPY CONSULTING

Overview

► Review of Technology Accessibility concepts
  ► Barriers to Access and Support options
  ► Exploration of Mobile Accessibility options
  ► iOS vs Android operating systems
  ► Mobile Device Accessibility Settings
  ► Safety and Security
  ► Barriers to Access

► Assistive Technology

  ► Definition

  ► Standard Technology

  ► Specialized Technology

► Next Steps

  ► Access and Inclusion

Accessible Technology

Standard Accessibility & Assistive Technology

Due to rapid changes in technology, accommodations are reactive instead of proactive.

Primarily address physical and sensori-neural deficits

Perception:
How content is delivered
- Screen readers
- Visual Optimization
- Captioning

Operation:
How content is accessed
- Keyboard access
- Switch access
- Voice input

Per WCAG technology must be
Understandable...
- Content
- Operation Instructions

Robust...
- Interpretation across multiple platforms

Current systems vary in methodology and can be confusing to use.

Lack of consistency across platforms makes learning to use technology challenging for people with additional cognitive processing support needs.

Mobile Technology Basics

Smartphones & Tablets have the power of a full computer in our pockets how do we choose?

Apple: iOS

❖ One manufacturer
  ➢ Limited options
  ➢ Standard hardware
  ➢ Faster processing
  ➢ Less battery life
  ➢ Face ID authentication
  ➢ No Jacks
  ➢ Limited accessory compatibility
❖ Closed operating system
  ➢ Limited adjustable features
  ➢ Standard interface
  ➢ Fast updates

Android

❖ Multiple manufacturers
  ➢ Increased options
  ➢ Design variability
  ➢ Innovation
  ➢ Connectivity
  ➢ Interchangeable accessories
❖ Open-source operating system (google)
  ➢ Increased customization
  ➢ More updates
  ➢ Better security?

Mobile Technology Basics

Smartphones & Tablets have the power of a full computer in our pockets how do we choose?

Tablets

❖ Multiple Size and Manufacturer options:
  ➢ Kindle Fire
  ➢ Ipad
  ➢ Android Tablet
❖ Benefits to larger size
  ➢ Vision
  ➢ Fine Motor
  ➢ Split Screen options

Smartphone

❖ Smaller than a tablet Multiple sizes & manufacturers
  ➢ Touch Screen
  ➢ Flip

Mobile Technology Basics

Step 1: Charge and Power on:
- Choose the right cable for the device
- Charging Pad
- Find the power button-side (on most)

Step 2: Authentication
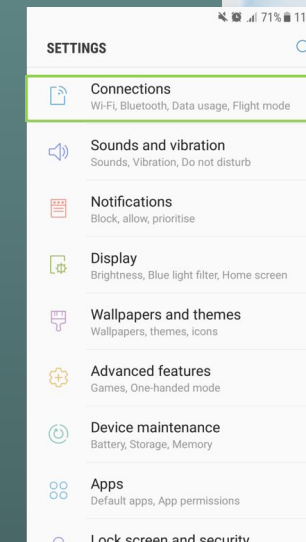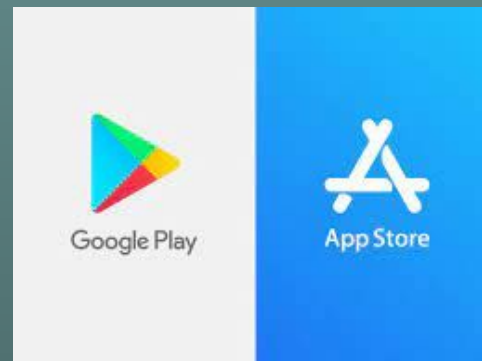- ❖ Passcode
- ❖ Fingerprint
- ❖ Face ID

Step 3: Check for connections:
- ❖ Cellular- bars and Gs
- ❖ WiFi- Connect to Network

Step 4: Display
- ❖ Mode
- ❖ Wallpaper
- ❖ Screen time-out

Step 5: There's an App for that:
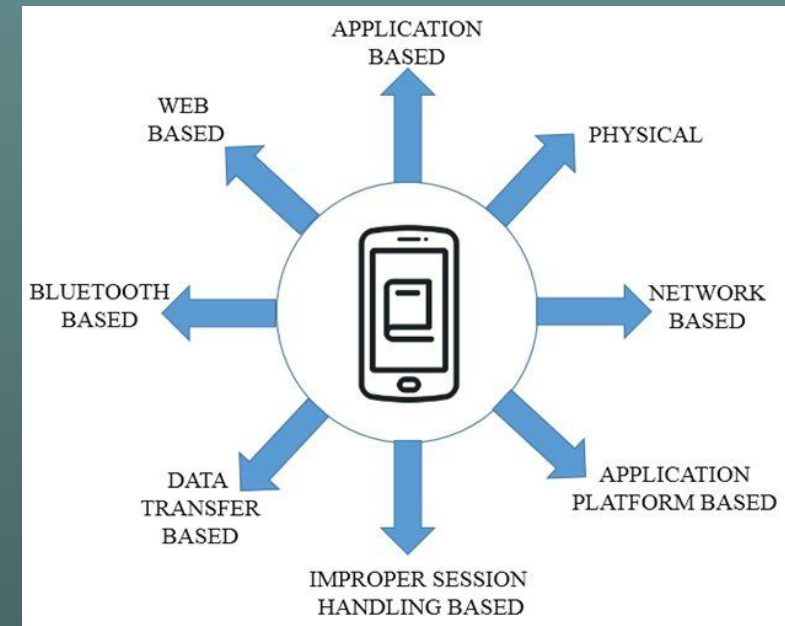Downloading apps
Connecting to email

Mobile Technology Basics

Safety & Security

- Access to inappropriate content
- Access to unknown people
- Viruses
- Scams
  - Phishing
  - Identity Theft
- Technology connects us, but makes us vulnerable to predators we can not see– WE MUST BE DILIGENT

According to HIPAA…
- Health Data must be ENCRYPTED
- USERS must have Unique log-ins
- Device must log the user out after a certain amount of time
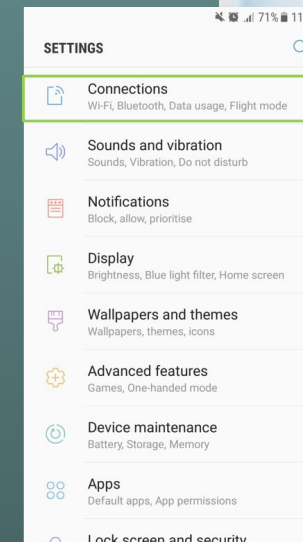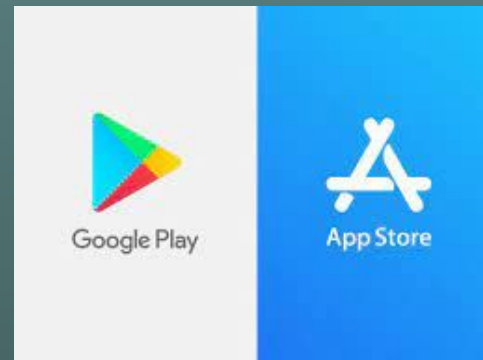
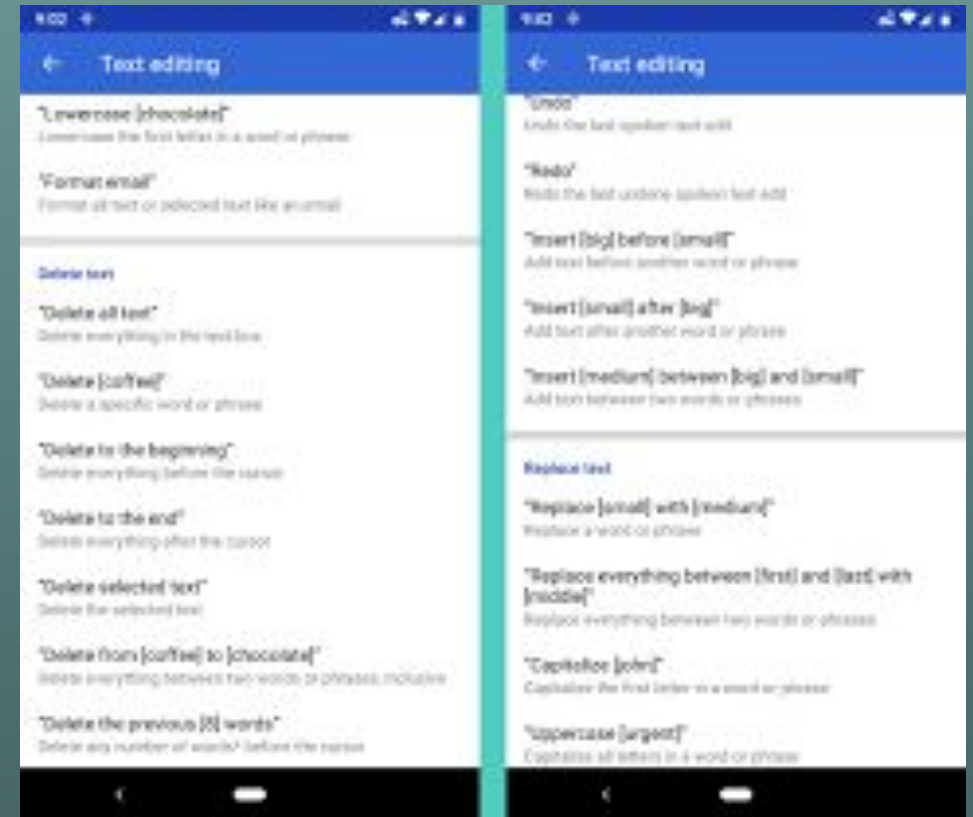# Mobile Technology Basics

WHAT BARRIERS EXIST?

HOW DO WE SUPPORT Client USE?

WHERE WILL YOU START?

Accessibility

- Input- Speech to Text
- Output- Screen readers
- What did you learn exploring the accessibility menu?

Assistive Technology

Definition from Assistive Technology Industry Association:

- products, equipment, and systems that enhance learning, working, and daily living for persons with disabilities.

- any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities. (IDEA)

TECH ACT(PL 100-407) - All states must have a process for providing assistive technology to adults and children with disabilities

- Differs from Durable Medical Equipment (DME)

- Each State has different funding pathways and requirements
  - Kansas AT Resources

When does standard technology become assistive technology?

Case Examples and Demonstration

Real Life Stories of How Assistive Technology Impacts Access and Inclusion

Assistive Technology

Standard Devices

- Commercially Available
- Understood easily by caregivers
- Lower Cost
- Varying Customization options
- Limited professional Support

Specialized Equipment

- Designed specifically to support people with disabilities
- More expensive
- Typically requires more professional support
- Not able to be programmed by natural support systems
- More customizable

Discussion and Next Steps

Think about everything we covered...

- What are some of the barriers for people with disabilities using mobile technology?
  - How can we support them using technology for 3 main functions
  - How can technology in your current settings be leveraged to support your clients?
  - When do you need to refer for more specialized equipment?
- What is one thing you want to know more about?
- What is one thing you will use tomorrow with your clients?