Assistive Technology and Independent Living

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TechACCESS (A Program of HMEA)

www.techaccess-ri.org

- Provides a variety of services in RI and MA: (MA Health approval pending)
  - Evaluation
  - Consultation
  - Training
  - Technical Support
  - Professional Development
  - Assistive Technology Conference of New England
    - November 17th and 18th
    - www.assistivetechnologyconference.com

What is Assistive Technology?

"Assistive Technology (AT) device is any item, piece of equipment or product system, whether acquired commercially, modified or customized, that is used **to increase, maintain or improve the functional capabilities** of individuals with disabilities."

~IDEA

Assistive Technology can…

- Increase access
- Increase independence
- Increase communication

Low Tech vs. High Tech

- Low tech tools are usually more readily available/easier to manage
- Training needs and the "learning curve" can vary significantly
- The "tiered" approach to AT…a combination of both low and high tech tools

Cooking/Daily Living

- Cooking Aids: www.independentliving.com
  - The Pot Minder (keeps pots from boiling over)
  - Liquid Indicator (alerts when liquids are close to top of cup/mug)
  - Cut Resistant Glove (protects hand when using sharp utensils/knives)
  - Cool Touch Oven Rack Guard
  - Magic Chef Talking Microwave Oven (press button for auditory cue of what its function is)
  - Color Cue Measuring Cup and Spoon Set
  - Adapted Utensils/plates/etc.
  - Voice Activated Phone (stores 17 names)/Picture Phone (dial by photo)
  - Talking Indoor/Outdoor Thermometer

Visual Recipe Resources

- Visual Recipes: http://visualrecipes.com/

- Your Special Chef: http://www.yourspecialchef.net/

- Bry-Backmanor: http://www.bry-backmanor.org/picturerecipes.html

- Making Learning Fun: http://www.makinglearningfun.com/themepages/RecipesPictorialDirections.htm

- I Get…Cooking app

  $4.99

iDevices

- iPad
- iPod Touch
- iWatch

- Use built-in features:
  - Reminders
  - Calendar
  - FaceTime
  - Videos
  - Accessibility Features

  Remember:
  *You may need a **cellular plan** for full access to all features*
  *Match **features** of apps with individuals*
  Not all apps are available on all devices

Apps for Communication

- ProloQuo2Go ($249.99)

- GoTalk Now (also has visual scenes) ($79.99)

- Assistive Express (typing)($24.99)

Apps for Scheduling/Social Stories

Visual Schedule Planner ($14.99)

Video Scheduler ($12.99)

CanPlan (Free, then paid)

Pictello ($19.99)

AutisMate ($149.99)

Functional Planning System($4.99)

Misc. Apps

- Money Trainer for Kids and Adults with Autism ($19.99)
- Dreampad (free; works with Dreampad pillow http://integratedlistening.com/products/dreampad/)
- Functional Planning System ($4.99)
- ShoppingList 3 (.99)
- QuickCues ($4.99)
- Everyday Skills ($49.99)
- Living Safely ($34.99)

Things to consider…

- Access to Internet
- Staffing levels
- Training needs
- Clear expectations
- Implementation plan

Smart home technology

- "Smart home" technology can facilitate greater independence while maintaining safety, both in the home and beyond
- Technology can:
  - Interface with residents
  - Act independently to stop a dangerous situation or prevent property damage
  - Interface with support providers
- Ethics
  - Technology should be implemented in the context of a person-centered planning process that ensures privacy and informed consent

Smart home technology: interface with residents

- Scheduling (may include reminders and/or the ability to check tasks off)
- Step-by-step directions (including daily tasks, recipes, etc.)
- Simplified email and web access
- Secure social networking
- Environmental controls (including control of lights, temperature, doors)
- Navigation (independent travel in the community)
- Decision-making
- Answering questions
- Dispense medication or take vitals

Smart home technology: interface with residents (examples)

- Scheduling
  - Endeavor 3 (AbleLink)
  - Functional Planning System (Conover)
  - TouchStream Solutions
  - Things (Cultured Code)
- Step-by-step directions (including daily tasks, recipes, etc.)
  - Visual Impact 3 (AbleLink)
  - Functional Planning System (Conover)
- Simplified email and web access
  - Endeavor Desktop Pro (AbleLink)
- Secure social networking
  - Community Tyze has a wall to post updates, messaging, a calendar, and can store files

Smart home technology: interface with residents (more examples)

- Environmental controls (including control of lights, temperature, doors)
  - SimplyHome
  - RFID wrist band or key fob to unlock a resident's bedroom door
- Navigation (independent travel in the community)
  - Wayfinder 3 (AbleLink) is an accessible GPS that provides verbal and visual cues
- Decision-making
  - Smart Steps is an app that uses Q&A decision trees and suggests when to call for help
- Answering questions
  - Identifor
- Dispense medication or take vitals
  - Pill dispensers (epill, SimplyHome)
  - Blood sugar (TouchStream, SimplyHome)
  - Weight (TouchStream, SimplyHome)
  - Blood pressure (TouchStream, SimplyHome)

Smart home technology: act independently

- Stove safety sensors
  - Homesensor (search on AbleData site) and iGuardStove (available through Sengistix) shut off the stove if no motion is detected after a period of time
  - FireAvert (search on The Alzheimer's Store) shuts off the stove if it detects a smoke alarm going off
- Magnetic induction cooktop shuts off if pot is removed or overheats (e.g., because water has boiled away)
- Water flooding sensor
  - FloodStop (search on plumbingsupply.com) shuts off the water valve if water is detected on the floor

Smart home technology: interface with support providers

- Receive alerts (text, email, or phone)
  - A trigger might be a low blood sugar reading, for instance
- Call center (may be overnight only or 24/7)
  - Resident may call, or a panic button or sensor may trigger a call from a center
  - If necessary, support staff may be contacted to respond
  - One advantage of a full-blown monitoring system is the ability to make sure the technology is working
- Web-interface
  - Support provider uses web-interface to check status

Smart home technology: interface with support providers (examples)

- TouchStream is a dedicated tablet which provides scheduling and directions, has the capacity to take vitals, can send alerts, and has a web interface

- Safety Connection is an overnight call center. Individuals call in when they are home for the night, and the center alarms doors/windows, smoke detectors, etc. Individuals can call for assistance, and the center can talk them through situations or contact the person's support team

- SimplyHome provides a call center that can be contacted by an individual through a panic button, or by sensors. The call center will contact the support provider or family

- Night Owl Support Systems connects an array of non-camera sensors to an overnight monitoring station. Staff at the station respond to alerts or calls in accordance with a support plan, and can dispatch responders who might be support staff, family members or friends.

Putting it all together: Imagine!

- Imagine! is a provider in Colorado. Beginning in 2005, they started their SmartHomes initiative.

- Residents use AbleLink technology for scheduling, step-by-step directions, web-surfing, etc.

- In the initial SmartHomes, the interface with the provider was a homegrown product, using a programmable logic controller. They suggest this would not be something to duplicate. In newer homes, they have adopted SimplyHome technology.

- Imagine! is also implementing technology to train staff, communicate among staff, track medications, etc.

Thank you for joining us!