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?

“What 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](http://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/](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!