

Assistive Technology, Ever Changing Opportunities

2018 HomeChoice Consumer Advisory Council Conference

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Presentation Objectives

- 1. Discuss the role assistive technology plays in people's lives.**
- 2. Discuss the role and importance of smartphones and tablets.**
- 3. Examine ways smartphones, tablets, apps and smart speakers can help decrease isolation among populations of people with disabilities.**
- 4. Suggest resources learning about the use of assistive technology.**

What is Assistive Technology (AT) and who uses it?

- Assistive technology refers to any product, modified or off-the-shelf, that's used by people with disabilities to increase independence or improve the quality of life.
- Examples of AT include:
 - Screen reader/screen magnification, often used by people who are blind or visually impaired
 - Wheelchairs, walkers, crutches are used by people with physical disabilities
 - Hearing aids and interpreting services are used by people who are deaf or hard of hearing
- Assistive technology also refers to digital devices, such as smartphones, tablets, computers, apps and smart speakers.

The Role Smartphones Can Play

- Smartphones are used by many and provide unprecedented access to information and services for many populations, including people with disabilities.
- Apple revolutionized access to smartphones when it introduced built-in accessibility features into its product line.
 - Apple built-in accessibility features include: VoiceOver screen reader technology, Zoom, screen magnification technology, closed captions and audio description (when available), the ability to control devices using switches, keyboards, braille displays and many other Bluetooth accessories.
 - Many apps also allow for easy access to needed services and supports as well as provide entertainment (games, Netflix, etc).
- Accessibility of phones running the Android operating system exists, but is not as robust as support that's built-in/provided by Apple. Android operating system accessibility continues to improve, however, and this is a positive trend for consumers.

Smartphone Apps

Thousands of applications exist for mobile platforms helping people with or without disabilities live independent full lives. Here is just a sampling of a few categories of apps to assist people living in the community. Unless otherwise noted in the following sections, apps are available on both iOS and Android devices.

Healthcare Apps

- Medici: allows text-based communication between patient and doctor alleviating the need for visits in some instances.
- MyChart: stores health records in one place making it easier to access patient information
- CareZone: takes picture of medication and sends reminders when it's time to take medicine

Socialization

For many living in the community can be isolating at times. The following are examples of apps that can help people with disabilities communicate via their smartphone.

- Talkitt: translates unintelligible pronunciation into understandable speech, allowing people to communicate more effectively.
- RogerVoice (Android only): converts phone calls into text-captioned for hearing impaired individuals
- HearYouNow (iPhone only): amplifies sound for those with hearing difficulty, uses headphones connected to the iDevice
- TouchTown apps: allow people living in residential communities to connect with others who share similar interests

Entertainment and Independence

- Stepping Stones (iDevices only): allows caregivers to set up pictures for daily routines, most helpful for those with developmental disabilities, this app costs \$0.99.
- Dexteria: through a series of games allows children or adults to improve their fine motor skills
- Be My Eyes: this free app and service, currently only available on the iPhone, but coming soon to Android, connects people who are blind or visually impaired to sighted volunteers who can assist with tasks.

Tablets

Tablets allow for similar access to apps as smartphones and can be an asset to a person with a disability. Android tablets are often lower-cost than iPad tablets made by Apple, but as mentioned previously, accessibility can be a concern with the Android platform. Many find tablets more convenient to use for accessing apps that are more game/entertainment focused. Also, some apps display differently or are made specifically for tablets, taking advantage of the larger screen size.

Smart Speakers and Assistants

Amazon and Google are two of the top companies who have entered into the smart speaker and assistant space. The Amazon Echo family of products utilize a virtual assistant known as "Alexa", enabling access to the services and functionality of the devices. The Google Assistant is summoned by using the command "ok Google," to access information. Both the Amazon and Google products offer many innovative skills and access to information for people with and without disabilities.

Amazon Devices

The Amazon family of products that provide access to the Amazon virtual assistant include:

- Amazon Echo, Echo Dot, Echo Show (includes a screen)
- Amazon Fire tablets, Fire TVS and Fire Sticks
- Kindle eReaders

Google's Assistant

The Google assistant is available on the following devices:

- Google smart speakers such as the Google Max and Google Mini
- Android phones, such as the Pixel and Pixel 2, manufactured by Google
- The Google assistant can also be accessed on iDevices via an app

How Do Smart Speakers and Assistants Work?

- Controlled by voice and smartphone/tablet apps
- Utilize "skills" in addition to the built-in functionality included out of the box
- Can be used to obtain information and/or to control home appliances
- Can also be used for accessing entertainment
- Amazon devices allow users to call individuals as well

Technology Pricing and Resources

- Devices such as Amazon's Echo dots and Google Mini products cost under \$50, allowing for a very cost-effective option in the home
- Many Android devices can be had for between \$50-\$200 as well
- Apple devices are more expensive but also provide better accessibility for certain needs
- To learn more about Amazon's accessibility features, visit www.amazon.com/accessibility
- Information about Google's accessibility features can be found by visiting: www.google.com/accessibility/products-features.html
- Apple accessibility resources are available at: www.apple.com/accessibility