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**OBJECTIVES:**

- The participants will identify resources for ongoing recommendations of available apps for OT practice.
- The participants will experiment with recommended apps.
- The participants will identify resources for evaluating apps



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- Electronic Information is exploding and showing up in many aspects of our lives
- Our clients are utilizing this new technology in their lives and want to implement it into their treatment and options for adapting to their new life



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### QIAT (QUALITY INDICATORS OF ASSISTIVE TECHNOLOGY)

<http://indicators.knowbility.org/qiat-list.htm>



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### MARK COPPIN

- Send email and ask to be placed on his email list for free app notification

mark.coppin@annecenter.org



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### AOTA'S APP RESOURCES

- <https://www.aota.org/Practice/Manage/Apps.aspx>



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## CEREBRAL PALSY

- Thanks to Ashley Arafat, Ashley Khalil, Mahpara Khan, & Angela Zara  
Wayne State University SOT




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## INJINI injini



Price: 29.99

**Features Highlights:**

- ☑ Subtle level changes support different stages of development
  - ☑ Short tutorials model how to play each game
  - ☑ Help button gives hints to boost confidence
  - ☑ Clearly defined game starts and endings for a distinct learning experience
  - ☑ Superb artwork, music and real voice files
- [https://www.youtube.com/watch?v=ush88tWA\\_wk](https://www.youtube.com/watch?v=ush88tWA_wk)




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## PROLOQUO2GO

Price: 249.99

**Feature highlights**

- ☑ Research-based vocabulary with three levels
- ☑ 23 pre-programmed grid sizes
- ☑ Core words located consistently throughout the vocabulary for motor planning
- ☑ Quick and easy customization
- ☑ Many accessibility features for users with fine-motor and visual impairments
- ☑ Customizable grammar support for verbs, nouns, pronouns and adjectives
- ☑ More than 60 natural-sounding free Text to Speech voices, including children's voices

Contact: [support@assistiveware.com](mailto:support@assistiveware.com)




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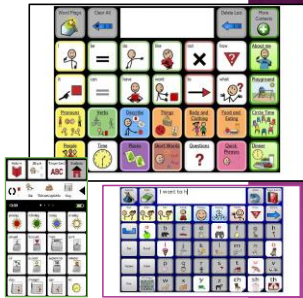
# SONOFLEX I



FREE trial; Full version \$99.99.

**Feature Highlights:**

- ▣ Vocabulary app that turns symbols into clear speech. It offers language to nonverbal users who are not yet in full control of literacy.
- ▣ Sono Flex combines the benefits of structure and flexibility, providing a framework for language development, quickly matching individual and situational communication needs.
- ▣ It has been designed to be easy to operate and easy for SLPs, OTs, teachers, parents, caregivers or other communication partners to setup and customize.
- ▣ <http://www.aactechconnect.com>



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# TALKITT



Price: 19.99/month subscription

- in many cases, individuals who are disabled with speech impairments find it extremely difficult to communicate, primarily because people around them have difficulty understanding their speech.
- The Talkitt app translates unintelligible pronunciation into understandable speech, allowing people to communicate using their own voice. To get the ball rolling, an individual with a speech disability will record a word and then that person (or a caregiver with the ability to understand them) will link the utterance to a word on the application. Language is no barrier, as any can be selected. Once in play, the system draws on this voice database to facilitate communication with people the user comes into contact with on a daily basis.
- Talkitt will run on any smartphone or tablet. Talkitt will run on PCs, laptops and wearable devices allowing the person to speak freely with anyone, anywhere and anytime.
- <https://www.youtube.com/watch?v=C0Y3G70-M1s>



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# TO BE NOTED:

The next few apps were specifically selected in regards to the stage of adulthood experienced by individuals with CP.

“ There is limited research on the issues that impact individuals with CP as they age. From the studies available, it has been identified that these individuals experience issues with **communicating**, unsatisfactory or **lack of access to healthcare**, both of which may be **mobility related**. ”

Goals of these apps:  
Help older adults with CP maintain contact with their loved ones as well as their healthcare providers/services, as well as provide helpful resources for mobility to navigate their area.

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## MIFINDER

Price: Free  
Targets the adult population

MIFinder is the world's first iPhone App to allow diverse communities, such as the disabled community to 'find' each other in real time, using GPS. MIFinder is unique in its approach as it enables users to find like-minded people to make friends with, date and gain social support in their local area and everywhere they go, based on their exact location.

Gabriel, the founder of the app, states: "The social needs of disabled people can be overlooked, they often need physical as well as mental support and they will find MIFinder a useful networking tool. The disabled community can sometimes experience difficulties socializing, as being home bound can limit the opportunity to travel to meet people."



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## MIFINDER CONTINUED

- Features:
- ▣ Search by life experience and/or community
  - ▣ Searches clearly displayed, by distance
  - ▣ Free instant messaging
  - ▣ Photo and location sharing
    - ▣ Advanced GPS options
    - ▣ Safe and Secure
  - ▣ Personalised profiles
  - ▣ Full disability support

- Life experiences covered include:
- Hearing impairments
  - Wheelchair users**
  - Depression
  - New parenting
  - Relocation
  - Veterans
  - Coping with loss
  - Visual impairments
  - Breast cancer
  - Asperger's
  - And more!**



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## LIVEHEALTH ONLINE

Price: \$49/visit, copays depending on insurance coverage  
Targets the adult population

Livehealth Online is a telemedicine service which lets you make a video call with the on-duty doctor. The doctor can further provide you with the right diagnosis and prescription. This type of healthcare application becomes much easier to access for individuals who are disabled. The biggest advantage of LiveHealth Online is that it accepts insurance plans as well. You can always see the cost before the appointment is confirmed.

- Michigan is one of the states that allow prescriptions to be prescribed over these visits!

More info: <https://www.livehealthonline.com/about>



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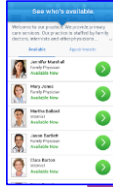
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## LIVEHEALTH ONLINE CONTINUED

- Pros:**
- Eliminates need for travelling
  - Easier and quicker access to healthcare
- Cons:**
- These doctors cannot prescribe controlled substances
  - This may include some pain medications, which would be expected to be requested by adults with CP as this is one of their more common complaints



LiveHealth  
ONLINE

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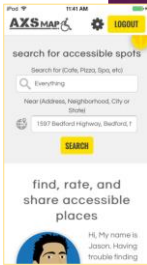
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## AXSMAP



- Price:** Free  
**Targets the adult population**  
 AXS Map is a crowd-sourced tool for sharing reviews on the wheelchair accessibility of businesses and places. Imagine being in a wheelchair and suddenly having the accessible world at your fingertips via web or mobile phone; AXS Map provides new freedom to be spontaneous about choices- where to eat, shop, work or play. AXS Map creates a community of people who care about access, and opens doors to a new world. AXS Map is available online or via mobile web, as well as Android and iPhone applications.  
 Check it out: axsmap.com  
 Cons: Still somewhat new; Detroit area has not been thoroughly "mapped" yet but can be helpful




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## NOTABILITY



- Price:** 9.99  
 -Can be accessed via: iPad iPhone and Mac.  
 -People learn differently and the note-taking app Notability embraces this notion. Paper and pencil can be difficult to use, especially with deficits in motor skills. Athetoid and dysknetic movements may make it difficult for an individual to hold their pencil and take legible notes.  
 - Combine handwriting, photos and typing in a single note to bring your projects to life. Use a wide range of note-taking and sketching tools to capture every detail. You can even add and annotate PDFs in Notability, allowing you to import lectures, presentations and forms straight onto the app from an email attachment.  
 - Notability allows users to input text with a keyboard or using their finger to write each letter. Notability also allows users to draw diagrams and highlight. Users can even zoom in on their notes if they have trouble with visual acuity.  
 - Additionally, those who have vision problems and excel through listening will certainly find the app's audio recording component useful.




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### DEXTERIA



Price: 3.99

#### Feature Highlights

- ☑ Increases coordination and motor control in the hands and fingers
- ☑ Automatically creates performance and usage reports that can be emailed
- ☑ Designed in consultation with Occupational Therapists
- ☑ Turns the iPad into a therapeutic tool

<https://www.youtube.com/watch?v=AxD5TAAFWQA>



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### ALS Apps

Thanks to Caitlin Berch, Madison Brewer, Francine Goryoka, Israa Mazloum, Kaitlin Schuur, & Sara Seidarabi

Wayne State University SOT

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### Work - ClaroSpeak

- Bulbar Onset: early to late stage
- Limb Onset: early to middle stages
- Bumpose: This application can be used to communicate with co-workers if speech is impaired.
- Application details:
  - Text-to-speech
  - Variety of formatting controls, to make use easy for all users
  - Cloud storage
  - Ability to import PDF, emails, and text messages to be read out



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### Work - CereProc

- **Bulbar Onset:** Immediately after diagnosis
- **Limb Onset:** middle to late stages
- **Purpose:** This application is a voice bank and allows individuals to communicate with co-workers when the ability to speak is gone.
- **Application details:**
  - Creates a computer version of their own voice
  - Carry out recording in their own homes
  - Web based




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### Work- Google Cloud Speech API

- **Limb Onset:** Middle to Late stages
- **Bulbar Onset:** Not recommend
- **Purpose:** This application allows individuals that no longer have the dexterity needed to type, to still be able to complete work task (e.g emails, reports, and communicating between co-workers)
- **Application details:**
  - Audio can be captured in real-time or pre-recorded
  - Uses google cloud storage




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### Home - PaceMyDay

- Individuals in the early stages of ALS may experience fatigue
- The PaceMyDay app can help monitor energy levels and identify appropriate durations for various tasks including breaks, in order to optimize daily activities.
- **Purpose:** To help users increase awareness of their energy levels and become more skilled at choosing how long to stay at a task before taking a break in order to improve their energy.




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### Home - Hygiene Helper

- Individuals in the middle stages of ALS may experience cognitive or behavioral changes. One example of a potential behavioral change is decreased attention to hygiene.
- Hygienehelper allows the client to keep track of and learn about daily hygienic responsibilities.
- Features include:
  - Daily task management
  - Curated tasks and information
  - Custom tasks and schedule
  - Informational articles
  - Educational videos
  - Task completion history
  - Filtering of tasks based on sex




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### Home - Late Stage

- Individuals in the late stages of ALS may experience muscle weakness and issues with coordination.
- Individuals may have a difficult time with mobility in the home and with operating buttons/switches/dials etc. on devices throughout the home.
- The iRule app uses a combination of software and hardware to control home devices.
- Purpose: It uses WiFi to communicate with just about any WiFi-enabled device, including A/V equipment, lights, thermostats, shades and blinds, network cameras, security systems, and more.




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### Early Stage - Small Talk

- SmallTalk consists of 14 apps: Oral-Motor Exercises, Dysphagia, Pain Scale, Conversational Phrases, Daily Activities, Intensive Care, Greetings, Tongue and Lip Exercises, Days/Months/Dates, Letters/Numbers/Colors, Phonemes
- Individuals with Limb onset early stages may not need adaptive equipment for communication
- Main symptom is slurred speech and fatigue




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### Middle Stage - Speak It!

- Speak It! Compatible with English, French, German, Italian, Spanish
- Will read incoming emails, texts, articles, word documents
- Will read aloud outgoing emails, texts, written communication, word documents
- During the middle stages of ALS, speaking is possible, however, slurred speech, mispronunciation, fatigue, and stuttering may occur.




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### Late Stage - GazeSpeak

- Pending App, enables one to talk with their eyes
- Listener points the smartphone on the speaker's eyes, speaker communicates via stare, blink, wink
- The app will generate commonly used words to predict what the speaker is trying to say
- During the late stages of ALS, speaking is nearly impossible or impossible for most but eye muscles remain intact (used for compensatory communication)



Speak with your eyes!

For people with disabilities and for education




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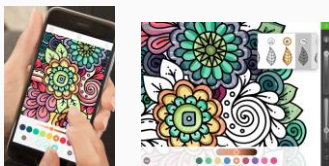
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### Early Stage - Pigment

- Hand curated, professionally drawn illustrations
- 21 different kinds of pencils, markers and brushes, and an unlimited number of colors
- Share pix with family and friends or print them!
- Good to relieve stress from anxiety and depression - common in ALS
- Limb.preset - fine motor difficulties
  - Bucket cursor option allows one click to blank space to fill in color
  - iPad can be used for a larger medium to draw on vs. a iPhone
  - Can use finger vs. grasping a stylus
- Bulbar.preset - No issues in early stage!




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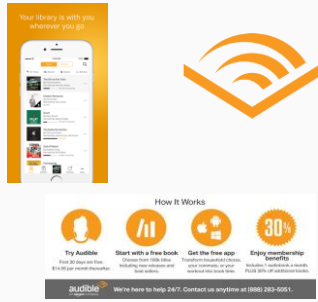
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### Middle Stage - Audible

- Easy to search books and genres to listen to!
- In the moderate stage of ALS, physical impairments may make it difficult for a client to flip through a book or navigate an e-reader.
- Physical demands requires searching the application and tapping the play button.
- Limb onset: If client's muscles are too weak -> another individual can set up the application for him/her and just start the audible application so that the client can listen.
- Can be used in bulbar onset




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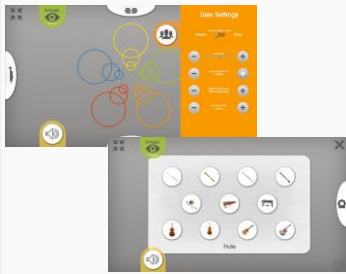
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### Late Stage - ii-Music for EyeGaze

- ii-Music software is a musical instrument designed to be played with your eyes using eye-gaze technology.
- Requires EyeGaze hardware to use
- Features: 10+ physical modelling instruments; Digital effects - fuzz, echo, phasor, reverb; Record your performance; Adjustable notes and scales.
- In late stage bulbar and limb onset ALS, most, if not all, voluntary muscles are paralyzed.




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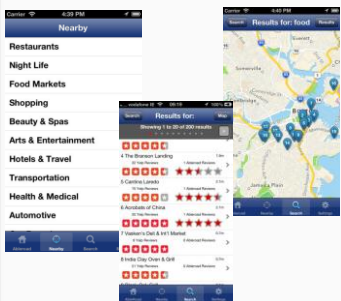
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### Early Stage - AbleRoad

- Provides relevant information for a variety of handicap accessible locations. App is accessible for individuals with mobility, hearing, sight and cognition deficits.
- Features include: parking, navigation, public transportation, & readily available assistance.
- Limb onset: During the early stages individuals experience muscle weakness, fasciculations, spasticity and fatigue.




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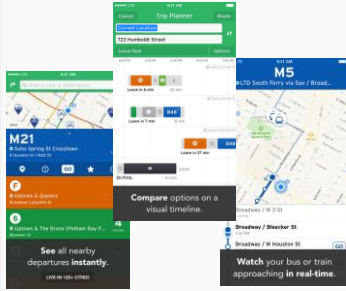
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### Middle Stage - Transit

- Provides public transportation navigation, such as the arrival time for a specific bus/ train, and names of each bus stop on the route, and even the number of stops for a specific bus ride. Also, allows to set the departure time or arrival time for your trip.
- **Limb onset:** During the middle stage of ALS, driving is prohibited due to loss of motor function resulting in weakness and decreased reaction time, and cognitive changes.




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### Late Stage - S&L Transportation

- Professional and reliable wheelchair, stretcher & handicap transportation service. Allows individuals to schedule pick-up days/ times, track location of their transportation and talk to service representatives.
- **Limb onset:** During the late stage of ALS, driving is prohibited due to loss of motor function resulting in weakness and decreased reaction time, and cognitive changes.




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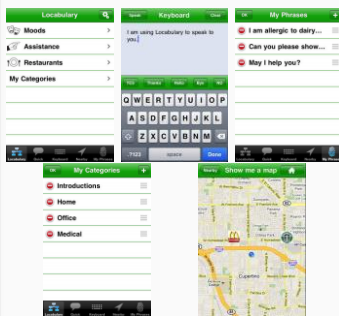
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### Early Stage - Locabulary

- **Purpose:** Uses one's location to generate phrases to communicate any needs or conversation starters.
- Custom lists of phrases can be stored on the iPhone or in the Locabulary Cloud.
- An example: If the user is at a coffee shop, the app will generate a suitable phrase "I would like an Iced Coffee" or "I am allergic to dairy"




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### Middle Stage - Healthcare Communication App.

- Features 7 pages of 276 original hand-drawn icons displaying ailments (illness), wants, needs, questions and foods
- The app can be arranged so that text is written in one language and spoken in another




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### Late Stage - ACCI Choice Communicator

- Provides greater customization and can be accessed via direct touch to the multi-touch display or with switch access.
- Offers choices of communication apps and a wide selection of protective cases.
- Can be mounted to a wheelchair, mounted on a tabletop or carried with a shoulder strap or carry handle depending upon the case




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### Communication- Adolescents

**App:** Dragon Dictation

**Description:** Dragon Dictation is an easy-to-use voice recognition application that allows you to easily speak and instantly see your text or email messages.

**Android or iOS:** Both

**Condition:** Low or impaired vision

**Price:** Free

**Pros:** Five times faster than typing on a keyboard.

**Cons:** A noisy environment may prevent accurate word translation.




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## Low Vision

Thanks to Kelsey Hall, Marilyn Paul, Danielle Spuhler, Chelsey Reaume, Taylor Talbot

Wayne State SOT

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## Communication- Adult

**App:** EchoDot & Alexa App

**Description:** Control most electronic devices through voice activation. The Amazon Echo Dot voice-controlled device turns any home into a smart home with the Alexa app on a smartphone or tablet.

**Android or iOS:** Both

**Condition:** Conditions leading to poor vision and blindness

**Price:** \$49

**Pros:** Can be controlled at a distance and with multiple devices.

**Cons:** Technical connection issues



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## Communication- Older Adult

**App:** ClariaZoom

**Description:** Turns an Android into a phone with the most basic features and makes navigation and accessibility much easier with its large interface, simple text driven menus, very large texts, bigger keyboards and speech recognition available everywhere.

**Android or iOS:** Android

**Condition:** Low vision

**Price:** Free

**Pros:** Simple and user friendly.

**Cons:** The many features may require longer learning time.



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### Home & Community Accessibility- Adolescents

**App:** Examine Clothes Color

**Description:** Enables individuals who have vision deficits to use their phone to help them independently pick out clothing to wear. The individual can take pictures of clothes and the app will read the color and pattern detected on the clothes.

**Android or iOS:** IOS

**Condition:** Blindness, color blindness

**Price:** Free

**Review:** Great reviews on AppleVis

**Pros:** easy to learn and use, has VoiceOver, free

**Cons:** Need adequate lighting for taking photos, does not detect stains.



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### Home & Community Accessibility- Adults

**App:** Google Home app

**Description:**

**Android or iOS:** Both

**Condition:** Low vision, impaired vision, blindness

**Price:** \$129.00

**Pros:** Controlled through multiple devices, can manage away from home, multiple capabilities

**Cons:** May require professional installation of smart appliances such as the thermostat and lights and configuration to Google Home. Requires time to learn to use.



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### Home & Community Accessibility-Older Adult

**App:** Aipoly Vision

**Description:** Deciphers a visual scene to help the individual with low vision explore their environment. For example, the user points the phone's rear camera at an object and hears feedback on what is being "seen" by the camera, without having to take a photo.

**Android or iOS:** IOS

**Condition:** Blindness, color blindness

**Price:** Free

**Review:** 2.5/5 stars

**Pros:** Don't need to take pictures like other object recognition apps. It does not require the internet or a third party to help decipher the visual scene

**Cons:** Misidentification of some objects, needs adequate lighting



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### Information Technology- Child

**App:** Ballyland Magic app

**Description:** This app helps kids learn basic skills to use a mobile touch screen device.

**Android or iOS:** IOS

**Condition:** low vision or blindness

**Price:** \$2.99

**Pros:** no experience needed by child or parent /teacher, built in speech, gives feedback, high contrast images

**Cons:** Only available in English and Italian



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### Information Technology - Adolescent

**App:** Soft Braille Keyboard

**Description:** A Braille keyboard that can be used in any application where a keyboard is displayed

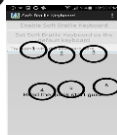
**Android or iOS:** Android

**Condition:** Blindness

**Price:** Free

**Pros:** Includes many features such as spell checking, voice dictation, text manipulation features, word count, auto-capitalisation and more. Braille tables available for many languages. Can be used on large screens like tablet and smaller screens like on phone

**Cons:** Requires time to learn to use



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### Information Technology - Adult

**App:** JAWS

**Description:** Screen reading software whose vision loss prevents them from seeing screen content or navigating with a mouse

**Android or iOS:** N/A

**Condition:** Conditions leading to poor vision and blindness

**Price:** \$895

**Review:**

**Pros:** can read PDFs, voices for 30 different languages, Braille output, supports all standard Windows applications

**Cons:** privacy issues, price, can be very complex if use more advanced features



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### Information Technology - Older Adult

**App:** BIG Launcher

**Description:** An app that provides a simple and easy to read interface that makes a phone easier to use

**Android or iOS:** Android

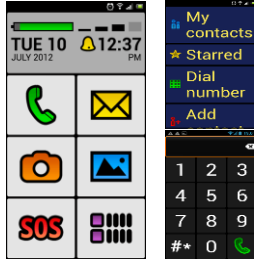
**Condition:** Low vision, blindness, autism

**Price:** \$10

**Review:**

**Pros:** enlarged icons and font, high contrast, personalizable, multiple languages, text to speech capability

**Cons:** Takes practice




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### Community Transportation & Driving- Adult

**App:** BlindSquare

**Description:** A self-voicing GPS app for people who have vision impairment that announces intersections and points of interests such as restaurants, cafes, and stores. It enables individuals with vision impairment to navigate their community independently.

**Android or iOS:** iOS

**Condition:** Blindness, low vision, macular degeneration

**Price:** \$39.99

**Review:** 4.5/5 stars

**Pros:** Works with AfterShokz headphones

**Cons:** Relies on internet connection




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### Community Transportation & Driving- Older Adult

**App:** Uber

**Description:** Request and pay for taxi service with your smart phone for transportation in the community.

**Android or iOS:** Both

**Condition:** Low vision, Macular Degeneration, Legal Blindness

**Price:** Free, however it costs money per ride

**Pros:** Easy to use, quick

**Cons:** Does not operate in some rural settings. Costs money. May need someone to set up your account with payment information.




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### Braigo Accessibility Companion

<https://www.youtube.com/watch?v=1v1DMoMFxqw>

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### Play & Leisure- Adult

**App:** NFB-NEWSLINE® Mobile

**Description:** News, weather, tv listings, at the touch of a button

**Android or iOS:** iOS

**Conditions:** Blindness, low and impaired vision

**Price:** Free

**Pros:** easy navigation, 300+ newspapers, 40+ magazines emergency weather and 7 day forecasts, job listings, tv listings, and retail ads.

**Cons:** Problems with crashing, must be an NFB-NEWSLINE® subscriber with a valid identification and security code.



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### NFB-NEWSLINE Mobile

<https://www.youtube.com/watch?v=ovUH3pCxvQ>

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### Play & Leisure- Older Adult

**App:** Cards That Talk App

**Description:** Utilizes the camera on iPhone or iPad to tell the player what card(s) they have

**Android or IOS:** IOS

**Conditions:** Blindness, low or impaired vision

**Price:** Free

**Pros:** Can use headset for privacy, will work with bluetooth braille display, and will continuously scan cards.

**Cons:** Must purchase special deck of cards for \$16.95.



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### Cards That Talk



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### School: Toddler/Preschooler

**App:** EDA Play

**Description:** Created by specialists in visual impairment to help children with visual impairment to train vision, and improve fine motor skills. Uses a black background, bold colors and large pictures to complete 40 different tasks.

**Android/iOS:** IOS

**Condition:** Children with visual impairments

**Cost:** \$4.99

**Pros:** Uses a contrasting background, large picture, bold colors and several activities.

**Cons:** Could not be used for individuals with severe visual impairment or blindness



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### School: Children

**App:** Braille Bee

**Description:** Teaches braille through a fun interactive game for children. Syncs with a refreshable braille display device.

**Android/iOS:** iOS

**Condition:** Any type of visual impairment/sighted individuals

**Cost:** \$2.99

**Pros:** Uses fun interactive games to help teach braille, and spell words. Uses contracted/uncontracted braille.

**Cons:** Not all games are functional for a person with severe visual impairment or blindness.



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### School: Adolescents

**App:** Learning Ally

**Description:** An educational reading app for individuals with visual impairments. Provides books/textbooks and audiobooks. Uses audio, larger text size, and a highlight feature.

**Android/iOS:** iOS/Android

**Condition:** Any type of visual impairment

**Cost:** Free with documentation of a disability that requires this app

**Pros:** Allows a student with visual impairment to be able to read textbooks with larger text and see the highlight feature or the use of audio.

**Cons:** Textbook selection



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### Work: Adult

**App:** Dragon Mobile Assistant

**Description:** Uses text to speech, and speech to text to help read and write documents needed for work.

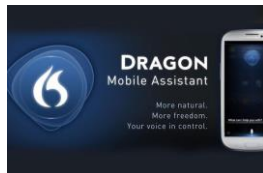
**Android/iOS:** Android

**Condition:** Any visual impairment

**Cost:** Free

**Pros:** Gives an individual more independence to be able to complete tasks at work. Uses voice over and hands free technology. Has text to speech and speech to text.

**Cons:** Only can be used by Android, and may need wifi or data to access app.



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# Hearing Impairment

Rachel Melcher, Jenell Nadolski, Alyssa Sanders, Sarah Termini, Kathleen Zintsmaster



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## APPS FOR HEARING IMPAIRMENT

### Infant

#### Sleeping Baby Hearing Test

- Behavioral Hearing Screening Application
- Screens for newborns 2 weeks to 6 months
- Produces 60-70 dB of mother's voice
- Free!
- Step by Step instructions for use
- Available for iOS



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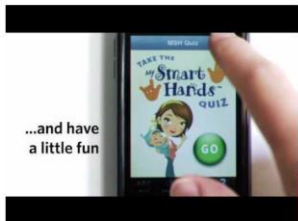
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### Toddler

#### My Smart Hands

- Instruction for more than 300 ASL signs
- More than 45 min of instructional video
- Practice quizzes
- Available for iOS and Google Play
- Cost effective: \$1.39



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## Toddler

### Baby Sign and Sing

- Provides video nursery rhymes performed in ASL
- Additional features: exploring signs and signing tutorials
- Cost: Initial download with one song is free. Additional songs ~\$1.99-\$3.00
- Available on Google Play for Android and IOS




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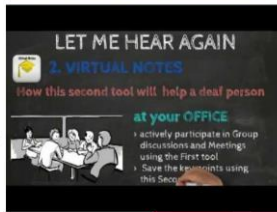
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## Childhood

- Award winning app with 4 specific features made specifically for individuals with hearing impairments
1. Face-to-Face Communication
    - Speech to text technology to transcribe spoken language.
    - Replies can also be typed into the app and then spoken out loud by the device, using text to speech software.
  2. Virtual Notes
    - Capture speeches and long conversations and save it as words in Phone memory, after speech recognition
  3. Quake Awake Alarm (Pro Version)
    - Set alarms which sound at a high volume and vibrate the device for up to 2 minutes
  4. Guardian Angel
    - alerting device designed to give a loud warning alarm and vibrate the device when loud sounds are detected in the environment

### Let Me Hear Again Android App



Available for Android version 1.8 and up  
Free on Google Play Store, \$9.99 for Pro version

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## Childhood

### Play/Leisure



#### FriendStrip Kid Pro

- Comic strip app which lets users customize comic strip stories using their own photos and text
- Features a set of story templates, which appear like a comic strip, and users can then build up their own story
- Accessible and inclusive app for deaf children because it is based entirely on visual content
- Free for both IOS and Android tablet users



#### Charades App

- Fun game to guess the word or phrase before time runs out
- Different challenges including dancing, singing, acting or sketching
- Free for both IOS and Android

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### Adulthood

- Modulates the loudness of the sonic environment for hearing impaired
- Processes sound received by the microphone in real-time - delivers the processed sound via headphones
- Enhances comfort and sound quality for the listener
- \$6.99

<http://www.aud1.com/>




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### APPS FOR COGNITIVE IMPAIRMENT

- Thanks to Celeste James, Lindsay Konal, Will Gillis, Kevin Piper, David Burke, Ryan Barbour

Wayne State SOT

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### Apps for Down Syndrome



<https://www.specialapps.org/en-us/>

- Developed by parents who have children with Down syndrome
- Visually clear and simple: no distracting backgrounds or noises
- Easily personalized, and designed to grow with the child
- Enable learning in small steps, with no negative rewards
- Recommended by Down syndrome organizations around the world
- Creating a teacher's manual and training workshops

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### Speech, Recognition of Words & Objects

#### Special Words (\$12.99)

- Encourages speaking and helps with clarity
- Promotes word, picture, sound recognition
- Promotes an increased attention span
- Develop hand-eye coordination

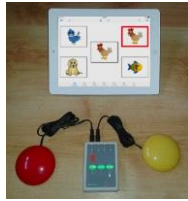


Includes 96 pictures and matching written and spoken words in [25 languages](#)

→ Cognitive range: 18 months-8 years old

#### Why are we Recommending this App?

- Clear and distraction free
- Can also be controlled using Bluetooth and USB switches and keyboards
- Can easily be personalized with your own words, photos and voice if child has mastered the pre-programmed words
- Monitors child's progress



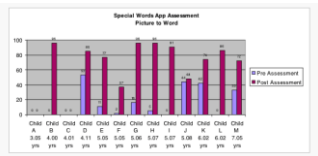
#### The Durham iPad Project - Special Words

June 2012

13 children from 6 schools, aged 3-7 years, with a range of communication and language difficulties

Used Special Words app for 10-15 minutes a day for 12 weeks

Enhanced communication, language, literacy skills, word recognition, listening skills, attention



<https://www.specialapps.org/pdf/durham-ipad-project-report-june-2012.pdf>

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### Why are we Recommending this App?

- Switch accessible
- Clear and distraction free
- Set the level of difficulty
- Choice of colour scheme to assist visually-impaired children
- Used for children with other learning disabilities
- Can adjust animation speed if more time to process is needed




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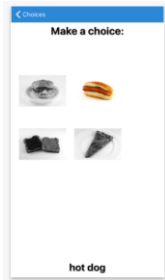
### Communication and Sequencing



**iPrompts (\$49.99)**

iPrompts:

- Provides visual structure to people with cognitive impairments
- Visual schedules
  - Visual countdown timer
  - Audio prompting
  - Choice prompting
  - Video demonstrations




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### Why are we Recommending this App?

- Encourages decision making
- Gives practical examples of social situations
- Visual structure helps break activities into smaller easy to understand steps
- Used for multiple diagnoses

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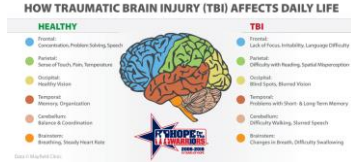
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## Traumatic Brain Injury

### Cognitive Issues

Symptoms can range from mild to profound:  
Attention  
Concentration problems  
Problems with processing  
and understanding information

Problems learning and  
remembering new information  
Planning Problems  
Organization Problems



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## Working Memory



### Flashcards Deluxe (\$3.99 IOS or Android)

Flashcard app which can be used to study just about anything you want.

Built in dictionary, capacity to include pictures and sounds, zoom into pictures, and auto-repeat sounds on the cards.



### Dual-N-back (Free IOS)

N-Back is designed to improve your working memory through actively memorizing and recalling information.

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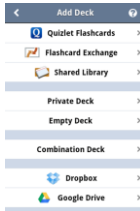
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## Why are we recommending these apps?

- Ability to practice memory skills
- Customizable
- Useful for people with or without memory deficits
- Compatible with many existing flashcard programs
- Challenging and fun



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### Attention, Problem Solving, and Memory



#### Lumosity (Free or \$79.99/year for premium)

Brain exercises targeting memory, attention, speed, flexibility, and problem solving.

You can design your own personalized training

Including "courses" with TBI- and/or PTSD-specific content.

Free version (IOS, Web)

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### Why are we recommending this app?

- 85 million+ users; countless reports in significant and lasting improvements in core cognitive abilities
- Exercises are graded as user ability increases
- Provides immediate, detailed analysis of performance regarding strengths, weaknesses and cognitive patterns (personalized training)
- Available in multiple languages (English, German, Japanese, French, Spanish, Portuguese)



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### Memory and Planning



#### ICE (In Case of Emergency) \$1.99

Keep a list of your medications and allergies

Health insurance info

Emergency contact list (doctors and family members)

Locate hospitals nearby in case of emergency

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### Why are we recommending this app?

Compensates for memory deficits that are common with TBI

Safety is always a primary concern and this app will ensure that their personal health information is available when needed

Ability to personalize

Clear and easy to set up and read through



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### Organization, Memory, Planning



Family life organization app that includes a shared calendar

Shopping lists

To-Do lists

Family Journal.

This app allows you to stay in sync with your family.

Free (iOS, Android)

*\* Paid version available for advanced functionality.*



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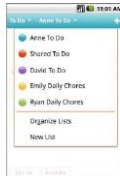
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### Why are we recommending this app?

Helps families stay organized and keep in touch  
Allows multiple family members to update and manage the account  
Provides structure and reminders for daily events  
Can be used with multiple disabilities



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## Memory



### It's Done (\$2.99)

- Provides a checklist for life's everyday critical tasks such as:
  - Locking doors
  - Feeding pets
  - Taking medication
  - Turning off the stove.
- "...ideal for those suffer with short-term memory loss due to brain injury, dementia, or other related medical conditions"

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## Social Cognition and Behavior



### Skype (free)



- Increase social engagement with family
- Increase feelings of connection to events that are occurring through friends and family video calls.
- Can have social participation from the comfort of one's own home.
- Can help with delaying the progression of social cognition and behavioral declines by interacting with friends and family members through video calls.

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## Why are we recommending this App?

- Individual can stay engaged in family members lives on a daily basis even if they don't have the energy to physically be with them.
- Individual can talk face to face with friends/family members
- Individual can share photos, video messages, and share their location with their family members.
- \*Logitech TV cam HD- With Skype software and Wi-Fi built into the camera, no computer is required, and you can make HD Skype video calls while sitting on the couch in front of your TV, for better viewing of family calls, friends, and more convenient than keeping track of an ipad, tablet, or computer.

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## Perceptual Abilities/Reasoning and Memory



### Find My Friends (Free)

Allows you to easily locate friends and family using your iPhone, iPad, or iPod touch.

Share location with friends and family by choosing their contact or email address and inviting them to share.

Find my friends allows you to set up location based alerts that can notify you automatically if a client leaves their house or arrives home safely.

You can also set up notifications that alert you when a client arrives at a certain destination including a doctor's office, grocery store, etc.

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## Why are we recommending this App?

In regards to individuals with Dementia, safety is a primary concern.

The "Find My Friends" App helps family members, caregivers, and clients feel safe with GPS technology that can locate the client in cases of confused wandering.

The client will also have less anxiety from an increase in perceived safety. This help with delaying the progression of Dementia and exacerbation of symptoms.

Family can also be notified when client arrives at a destination, which contributes to the client's and family's feeling of safety.

If the client decides to wander without a phone, you can recommend purchasing an apple watch that the client could wear continuously and could be tracked at all times.

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## Multiple deficits and caregiver support



### MindMate

MindMate has become world's highest rated software for seniors, and people living with memory problems, such as Alzheimer's and dementia.

"MindMate is not your ordinary Alzheimer's or Dementia App. MindMate is like a friend and guardian angel"

It makes persons with dementia more independent, with the help of useful reminders, to-do lists etc.

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### Why are we recommending this App?

#### MindMate (Free for apple products)

It improves the caring process, with the help of a separate dashboard that allows a remote access to the patient's app for family members or care members.

- It gives family-members a greater peace of mind by tracking and monitoring the progress of the person with dementia.
- This app will help a person with dementia improve their self-management, be independent as long as possible, and the app will help the person to treasure the most important memories, as well as provide games, brain/body exercises, and reminders.

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### APPS FOR INDIVIDUALS WITH QUADRIPLÉGIA

- Thanks to Samaah Abboud, Katie Lafrinere, Jordan Mulders, Michelle Polec, Alex VonBehren  
Wayne State OT students




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**Amazon Echo**



- Hand-free/voice activated
- Provides 360 degree omni-directional audio.
- Recognizes voice from across a room while music is playing and continuously gets smarter while learning what the individual uses.
- Plays Music
- Can Sync to Smart Devices
- Many Other Uses...
- Cost: ~\$180

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## Switch Control for iOS



- The Switch Control can be used to navigate iPhone, iPad, or iPod touch.
- Free (Included in all iOS devices)
- Allows you to use a single switch or multiple switches to access different options on iOS devices.
- You can use this to select, tap, drag, type, and freehand draw.

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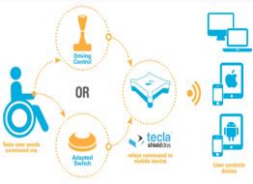
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## Tecla Shield



- Allows those with limited upper body mobility to access their touch screen devices
- It makes it possible to use both iOS and Android smartphones and tablets, as well as computers. All are accessible using assistive buttons, switches or wheelchair driving controls.
- Wirelessly linked to the wheelchair driving controls such as joystick, sip-and-puff controllers, head arrays and other buttons in general that are not wheelchair driving controls to smart devices.
- Cost: \$349

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## Sixth Digit Stylus



- Ring stylus used to click on keys and use stylus tip on touch screens
- Cost: \$30
- Comes in 3 different sizes that adjust to digit
- Shoulder/elbow function should be present to control the tool
- Increases independence in using touch-screen technology and computers

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## Pillboxie



- This app provides an easy, visual way of remembering to take medications
- Schedule reminders by selecting pill shape and color, and dropping a virtual pill into a pillbox.
- Pillboxie will alert you on time, even if your device is sleeping.
- Compatible with Apple devices, \$1.99

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## iBooks



- A digit reading app that has classics, bestsellers, and audiobooks for all ages
- Can be personally formatted (fonts and colors)
- Can be navigated using Apple Switch Control
  - Use a switch to turn pages of the e-book.
- Auto-night theme - prevent eye strain
- Free app - Book costs vary

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## AbleRoad



- Locate, rate, and review accessible places:
  - Restaurants, stores, hotels, grocery stores, salons, theaters, etc
- Information and access ratings on:
  - Parking, restrooms, paths to entrances, lobby, counters/registers, signage, and interior access
- Compatible with iPad, iPhone, and iPod touch
- May require wifi or data connection for use
- Free App

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**Tobii Dynavox-PCEye Mini**



- Small eye tracker that is plugged into one's personal laptop or desktop to replace the standard keyboard and mouse
- Allows one to navigate and control one's computer using only his or her eyes. It is plugged into the computer through a USB port and attaches through a magnetic mounting bracket
- Allows them to control their computer with their eyes instead of using their affected upper extremity
- Cost: \$1,995.00

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**Keeble- Accessible Keyboard**



- Cost: \$24.99
- Adaptive iOS keyboard for individuals with fine motor deficits, visual impairments, or switch users
- Supports Apple Switch Control and VoiceOver features
- Compatible in almost all apps on an Apple device
- Features: Word prediction, timing options, select on release, select on dwell, auditory feedback, etc.

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**WHAT ARE SOME OF YOUR FAVORITE APPS?**

- As we share, lets develop a resource list that we can have on MiOTA's website with the ability to add to as things are updated.




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