Voice Assistant Assistive Technology for People with Brain Injuries

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Advancing Opportunities

www.assistivetechnologycenter.org
Welcome
Glad you’re here!
Advancing Opportunities

• Who am I?

• AT Evaluations and training through School Districts, DVR, CBVI, DCF, DDD, NJ Traumatic Brain Injury Fund

• All disabilities

• Mobile Services

• Technology Lending Center
Who is in the audience?
Agenda for Session

- Intro to Assistive Technology (AT) and Consideration Process
- Intro to Voice Assistants
- Specific ways to use Amazon Alexa
- Other newer assistive technology tools applicable to people with TBI
- Questions and Wrap Up
What is assistive technology?
10 years ago...

- Not using smartphones (remember Palm Pilots?!)  
- Limited texting  
- Voice recognition technology was limited and not super accurate  
- AT products were mainly stand alone
Now...

- Smartphones used extensively in all aspects of life
- Internet in our pockets
- Voice recognition more reliable, easy to use, and part of lots of devices.
- Blending of mainstream technology and AT
SETT: Considering AT

- S: Student/Person
- E: Environment
- T: Tasks
- T: Tools

# Choosing the correct tools

<table>
<thead>
<tr>
<th>CONSIDER</th>
<th>AVOID</th>
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<tbody>
<tr>
<td>Ease and reliability of use</td>
<td>Feeling overwhelmed, frustrated, or confused with tool.</td>
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<tr>
<td>Availability of technology support system</td>
<td>Maxing out support system</td>
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<tr>
<td>The person’s biggest need</td>
<td>Tackling everything at once</td>
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What exactly is a Voice Assistant?

- “Smart Speaker”
- Voice controlled speaker with vast array of skills
- Built in tools and “Skills” that can be enabled
- Smart Home capabilities
- 1 in 6 US adults (or around 39 million people) now own a voice-activated smart speaker (NPR and Edison Research)
- Most popular are Amazon Echo (73%) and Google Home (14%)
Amazon Echo—No Screens

- Echo Dot
- Echo
- Echo Plus-Integrated hub
Amazon Echo--with Touch Screens

• Echo Spot
• Echo Show
Google Voice Assistants

- Google Home Mini
- Google Home
- Google Home Max
What do you need for it to work?

- Needs to be plugged in
- Need Wi-Fi connection
- Download app onto tablet or smartphone OR go to Alexa website to set up and control
Why use a Voice Assistant?

• Increased INDEPENDENCE!
• Less reminding, repeating, nagging
• Many people already have them or will have them
• Quick and easy to use
• May be perceived as less intimidating than other technology
Questions to consider before purchasing...

• Does person:
  - Become easily overwhelmed or frustrated by technology?
  - Have some troubleshooting skills or have a technology support system?

• Can person:
  - Remember commands or use a system to remember them?
  - Speak relatively clearly?
Strategies to help remember commands

- Written list
- List on smartphone
- Starting with just 2-3 commands and build slowly
- Test before using with client
Alarms

• One time or repeating alarms
• “Alexa, set an alarm for 8:30 AM.”
• “Alexa, set a repeating alarm for 8:30 AM” (Follow up questions)

• In app you can:
  - Turn alarms on/off
  - Edit/Delete alarms
  - Change alarm sound and volume

• IFTTT-Alexa alarm makes phone ring/notification
Ideas to use Alarms

• Wake up
• Go to bed
• Take medicine
• Start routine
• Leave for work
• Leave for Dr. Appointment
• Remember to do anything important!
• Your ideas?
Timers

- Named or unnamed timers
- “Alexa, set a timer for (duration) minutes.”
- “Alexa, set a (name of timer, ex. laundry) timer for (duration) minutes.”
- Alexa will announce repeatedly when your timer is done: “Your laundry timer is done.”
Ideas to use Timers

• With Pomodoro technique for focus
  - Bill paying
  - Cleaning
  - Sorting mail
  - Checking email
  - Specific word task

• Laundry
• Cooking
• Your ideas?
Reminders

- One time or repeating reminders
- “Alexa, remind me to (task/action).”
  - Alexa: “When should I remind you?”
- “Alexa, remind me to take the blue pill at 8:00 AM every day.”
Reminders Continued

- Alexa: “This is a reminder—
  (what you asked her to remind you).”
  - Plays two times
  - Sends notification to phone (must allow in Alexa app settings)

- In app, you can:
  - Create, edit, delete reminders
  - View completed reminders
Ideas to use Reminders

- Medications
- Steps to routines, like AM routine
- Add a reminder to take a break—movement or mental
- Doctor appointments, meetings, etc.
- Anything you need to be reminded about, especially if you are not going to be home when reminder occurs.
- Your ideas?
Lists

• Default lists are Shopping and To do
• Custom lists:
  • “Alexa, create a list.”
  • “Alexa, add (item) to (list name) list.”
  • Ex: “Alexa, add call Dr. Rosenthal to my to do list.”
• Also can connect to other list apps: Any.do, AnyList, Cozi Lists, Picniic, Todoist
Lists Continued

• In app:
  - Can check items off
  - Can edit list
  - Can view completed item
  - Can print list

• On Alexa’s with screens, can see lists
  - You Tube video:
    - https://www.youtube.com/watch?v=7TLKTE5-VI
Ideas to use Lists

- Shopping
- To Do
- Work list/personal list
- List of things to address with doctor/therapist
- Bills that need to be paid
- Daily to-do list
- Reusable lists—multi-step tasks, routines
- Your ideas?
Calendar

- Alexa can link to iCloud, Google, Microsoft Office 365, Microsoft Outlook.com calendars
- Can link multiple calendars
- Set up in Alexa app settings
- “Alexa, add an event to my calendar.”
- “Alexa, what’s on my calendar today?”
Remember This…

• Very new feature
• Allow users to tell Alexa things they want her to remember.
• “Alexa, remember that (insert info you want remembered).”
• Ex. “Alexa, remember that my wife password is (…..).”
• Using reminders may be more appropriate and effective for some situations
Ideas to use “Remember This…”

• Birthdays
• Clothing/Shoe Size
• Names of medications
• People’s names—neighbor, doctor, friend, teacher
• Where you keep things, like spare keys
• Passwords???
• Easier to use for things that don’t change frequently
Blueprints

- New feature
- Create your own personalized Alexa Skills for anything you need
- Create them on: https://blueprints.amazon.com.
Ideas to use Blueprints

- Custom flash cards
- Babysitter Blueprint
- Houseguest Blueprint
- Custom Q&A
IFTTT

- If this then that
- Gets devices talking to each other
- Adds extra functionality to Alexa
  - Like notifications to smartphone for alarms and timers
Drop In

- “Drop-in” on anyone with an Echo
- Drop-in on your other Echo
- Could be used to check in on person
- Video on Show and Spot
- Privacy concerns
- Block people in app
Ask My Buddy Skill

- Free service
- Helps person contact loved ones if needed for emergency situations
- Designate contacts
- Alerts via text message and phone call
- Works on Google Home
- Not substitute for 911
Smart Home

- Increased independence for those with physical impairments or fatigue

- Lights:
  - Smart bulbs
  - Smart plugs
  - Smart switches
  - Smart outlets
Smart Home

- TV
- Thermostat
- Locks
- Cameras
- Roomba
- Appliances
- And on and on...
Stress Management

• Music (you can get through Amazon Prime, Spotify, Pandora, etc.)

• Breathing Skill:
  - Deep Breath skill: Walks people through deep breathing exercises that are coupled with imagery
Stress Management Continued

• Meditation Skills:
  - Guided Meditation: Meditation of the Day for Calm: Daily guided meditations between 3-8 minutes
  - 1-Minute Mindfulness | Peace One Minute at a Time: One minute meditations
  - Stop, Breathe, Think skill: Guided meditations between 3-10 minutes

• Sleep Skills:
  - Sleep and Relaxation Sounds: Plays various calming sounds - ocean, rain, thunderstorms
Cognitive Exercises

• Listening to books via Audible and some Kindle books

• Skills:
  - Train My Brain
  - Super Brain
  - Memory Training
  - Memory Recall Training
  - Memory Mania
  - Brain Workout
Alexa Resources

• Emails from Amazon with updates
• Amazon Alexa User Guide website
• Alexacast Podcast
• Facebook Groups:
  - Amazon Echo Tips, Tricks, News & Support
  - Amazon Echo & Alexa-powered Device Owners
• https://alexa.bio/
YOUR Ideas?
Other AT Tools for People with TBI
Smartwatches

- Will vibrate and display calendar notifications, among another notifications and alerts
- Can change haptics, alert sounds
- Determine what notifications you want to come to your watch
Fitbit Notifications and Alarms

- **Most** Fitbits can alert users via vibration.
- Can alert calendar events, text messages, phone calls
- Put things on calendar that person needs reminders for
- Also can do up to 8 silent (vibrating) alarms

www.fitbit.com
Tiles

- Bluetooth Tracker to locate lost things.
- Various versions with differing looks:
  - Mate—standard version
  - Slim—slip in wallet, passport, etc.
  - Sport—rugged and waterproof
  - Style—fancier
- Work with app
- Also…”Alexa, find my phone”
Livescribe Echo Smartpen

- Synchronized notes and audio
- Special notebooks
- Upload to computer
- Strategies for implementation
- Permission to record
- www.livescribe.com/en-us/smartpen/echo/
- Approx. $180
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- Web: www.assistivetechnologycenter.org

- Check our You Tube Channel: https://www.youtube.com/user/assistivetechcenter

- Technology Lending Center (TLC)—FREE!
  - Try it before you buy it
  - Loans up to 6 weeks
  - Free shipping
Thank you!

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