

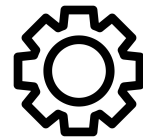


AI, Accessibility and Aging

Simple Technology Solutions for
Aging Adults with IDD



Tech First SHIFT 10-28-25
Joan L. Green, M.A. CCC-SLP



“TECHNOLOGY”

When you hear “technology”- what comes to mind?

- Something complicated
- Expensive
- Time consuming
- Another burden
- Source of problems and frustration
- Not in your job description
- Safety issues

Let's change that!



Welcome- This is for you!

Providers, Caregivers and Support Teams

- Show you what's possible to make life easier for everyone!
- Provide helpful resources
- Help you help others to build confidence, independence and social connection



(Images in this presentation were created on Canva and with the help of genAI- ChatGPT and Gemini)

Tech for Success and Independence

Smartphones, smart speakers, computers and other devices can positively impact adults with IDD as they age to promote independence, wellness and community integration.



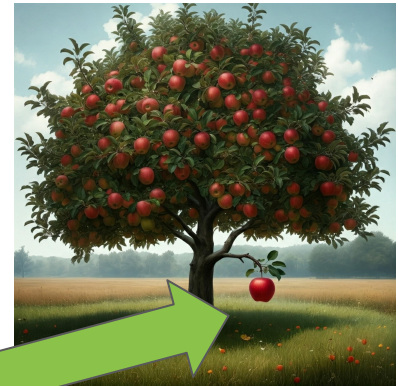
New Tech Mindset

“How can readily available and free or low cost technologies help adults with IDD:

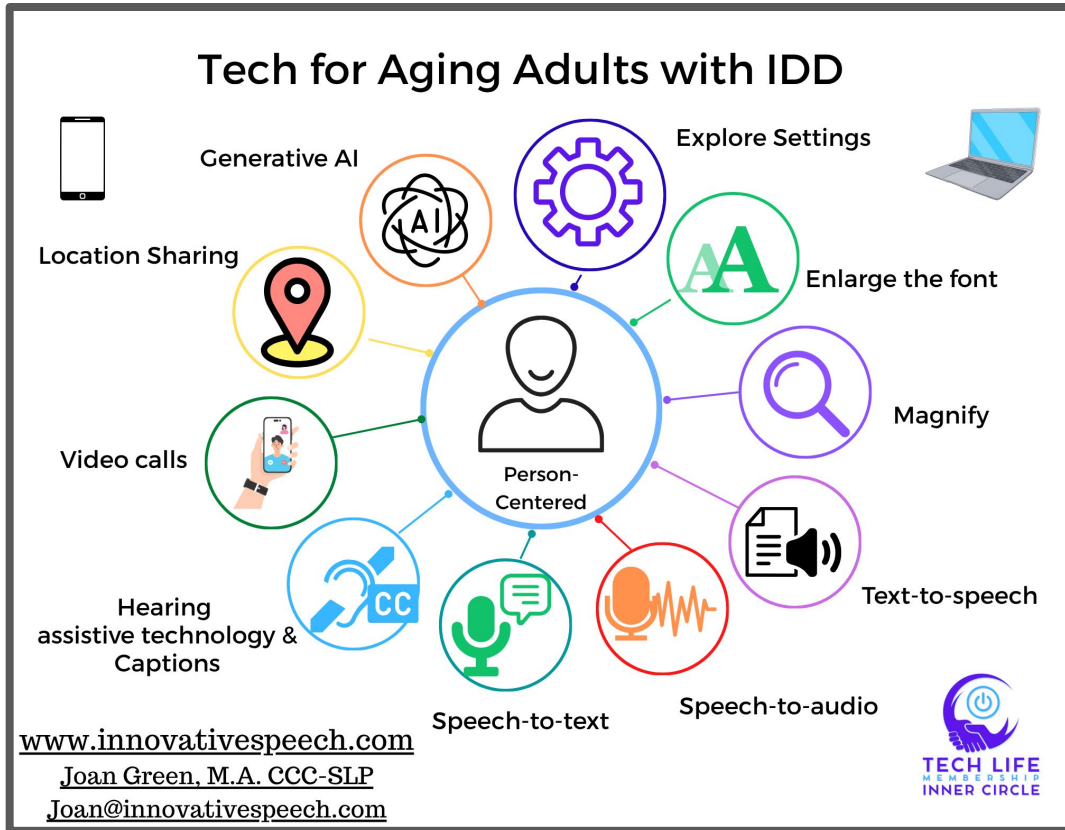
- experience success with everyday tasks
- stay socially connected, and enjoy life?”

Let’s look for the “lowest hanging fruit” first!

Start with features and tools that offer the greatest impact , cause the least resistance, are readily available, and require the least expense.



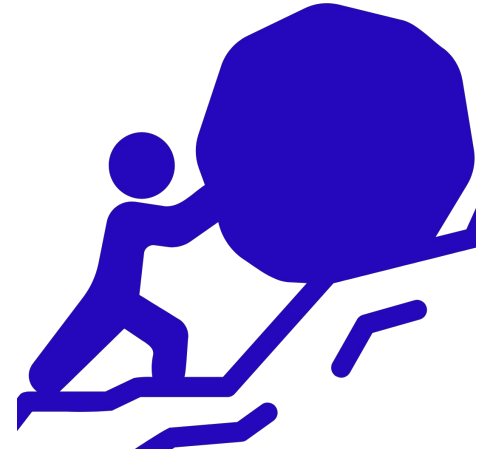
Tech for Aging Adults with IDD



Tech can transform lives

It's essential for people who struggle

- Expressive Communication Challenges
- Vision loss
- Hearing loss
- Mobility Limitations
- Dexterity- arthritis
- Isolation- depression- lack of stimulation
- Cognitive decline



Increased lifespan

Individuals with Down syndrome and other developmental disabilities:

- 1930- lifespan-**20 years**
- 2021- **60–70s**
- The number of adults with IDD age 60 years and older is projected to nearly double from 641,860 in 2000 to 1.2 million by 2030 when all of the Baby Boom generation will be over 65 .

As people with IDD live longer, they are more likely to experience the same age-related conditions as the general population—hearing loss, vision changes, arthritis, memory decline—but often **at earlier ages** (National Institute on Aging, 2022).

[National Core Indicators- Data Brief, MCI MASDDDS &HSRI- March 2020](#)

Relevant Statistics



Among adults with IDD:

- **vision impairment** is very high when screened
- **hearing loss** is frequent and often undetected
- higher rates of **chronic health conditions** than peers without IDD

Prevalence of major disability types in US adults:

- 13.9% have serious difficulty with **cognition** (remembering, concentrating). [CDC](#)
- 6.2% have serious difficulty **hearing** (deaf or serious trouble hearing). [CDC](#)
- 5.5% have serious difficulty **seeing** even when wearing glasses. [CDC](#)
- About 1 in 4 U.S. adults (28.7%) have some type of disability. [CDC](#)

Everyday Tech and AI can make all the difference!

- Identify Key Built-In Accessibility Features
- Understand Age-Related Technology Needs
- Explore Mainstream Device Alternatives



Self Reflection- Tech Confidence

How comfortable are you with technology?

I prefer to avoid
tech if at all
possible!



I'm confident and
comfortable with
keeping up with
emerging tech. I
love it!

Circles of Support

We all need our “go to” people!

I highly encourage you to form tech teams!

A while back I created an ElderTech Advisor Network- the concept has evolved into the Tech Life Inner Circle!

<https://bit.ly/techlifemembership>)- we meet weekly to help with tech exploration and implementation



Joan Green- Your Tech Advisor



Innovative
SPEECH THERAPY

About Online Learning ▾ Blog Work With Me Resources ▾ Books Contact 🔍

Innovative Speech Therapy

Hello and welcome!

IST offers a uniquely effective guidance empowering individuals, families and professionals with state-of-the-art local and long-distance therapy, coaching and training programs.

Joan Green is a licensed and certified speech-language pathologist and assistive technology specialist with many years of experience helping children and adults who have communication, cognitive, literacy, learning, and executive functioning challenges.

30 YEARS
OF HELPING FAMILIES THRIVE

[Let's get started](#) [Join our email list](#)

Improving Communication, Cognition and Productivity with Tech-Savvy Strategies, Solutions and Support

- Speech-Language Pathologist
- Assistive Tech Specialist
- Founder of Innovative Speech Therapy
- Founder of Tech Life Inner Circle Membership
- Manage Free IST Tech Savvy Solutions Facebook Group
- Immersed in eldercare
- It makes my day to help others improve life with tech!
-

www.innovativespeech.com, Joan@innovativespeech.com

Important Frameworks/ Approaches

- SETT- Person centered
- Universal Design- Many devices have amazing built-in features
- Use tech to both **improve skills** and leverage strengths to **compensate** for areas of weakness



Tech can be overwhelming

Where should you start in your quest to better help clients/ patients/ residents who are aging with IDD?

Get to know your own devices better so you can help others more easily.



Explore Settings on Devices Already Available

Settings

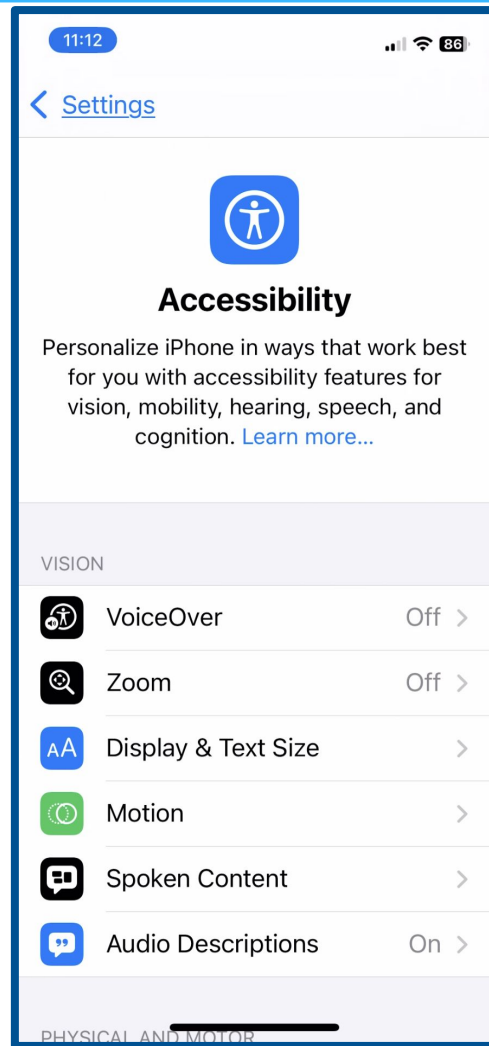
- Start by exploring what's possible in the settings!
- Check out the accessibility section
- Consider initial access
 - passwords and passcodes
 - balance ease of access with privacy concerns
- Apple Accessibility
- Google Accessibility
- Microsoft Accessibility



iPhone Settings > accessibility

Settings > Accessibility

- Vision
- Physical and Motor
- Hearing
- Speech
- Accessories
- General

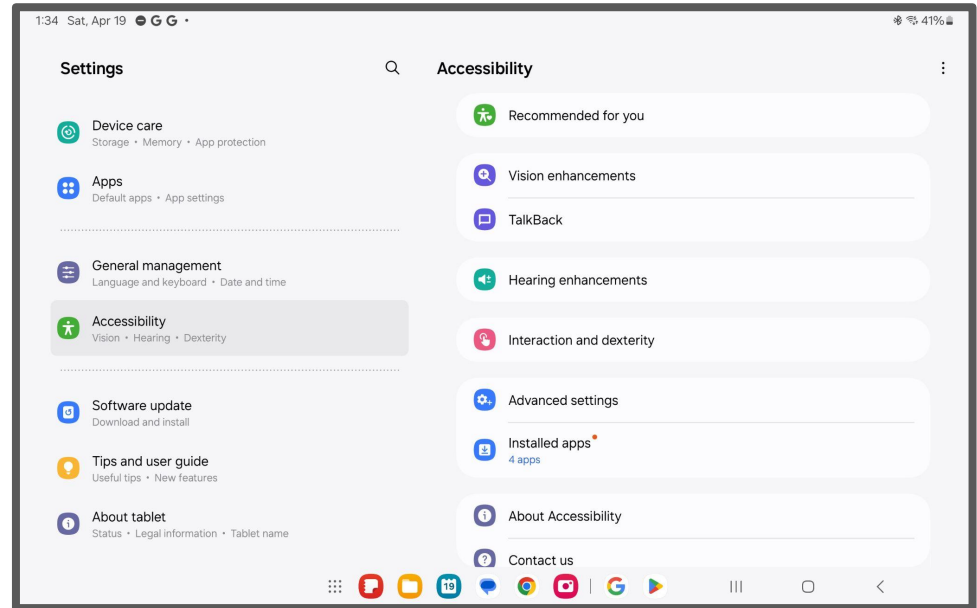


Android Settings > Accessibility

Vision

Hearing

Interaction and dexterity

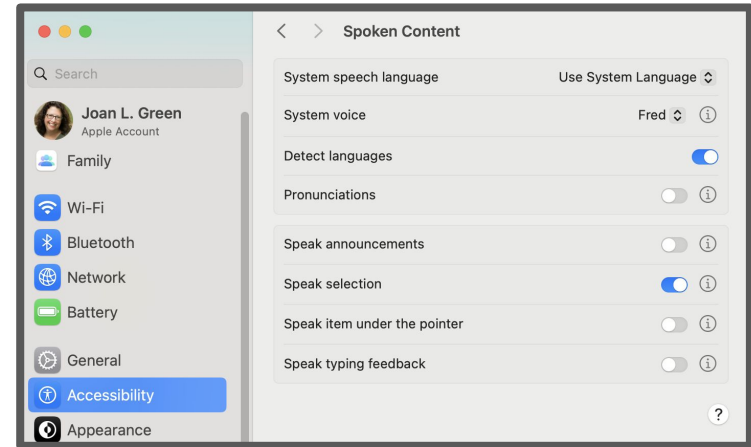
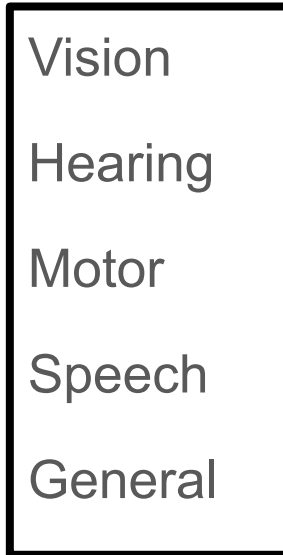


Screenshot of Samsung Galaxy Tablet

Mac Computer Settings



- Click the apple icon on the top left of the screen
- Go to “System Settings”
- Accessibility



Windows Computers

Click the start menu (Windows icon in the lower left corner)

Click the settings icon (gears) - or press Windows Key + I on the keyboard

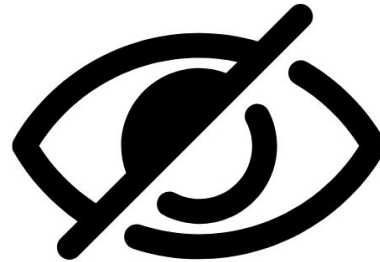
Accessibility/ Ease of Access

- Display
- Magnifier
- Narrator
- Closed Captions
- Keyboard
- Mouse



Scenario 1

Jose is experiencing visual challenges as he ages. It's hard for him to read the small print on his phone.



Enlarge Font Size

Bigger Text = Easier Reading

- Increasing font size can reduce eye strain and make text easier to see.
- You can change specific apps
- Adjust brightness and contrast, too — large print works best with good lighting and high contrast.
- Drawback- less information will appear on the page and you may not see all the options.



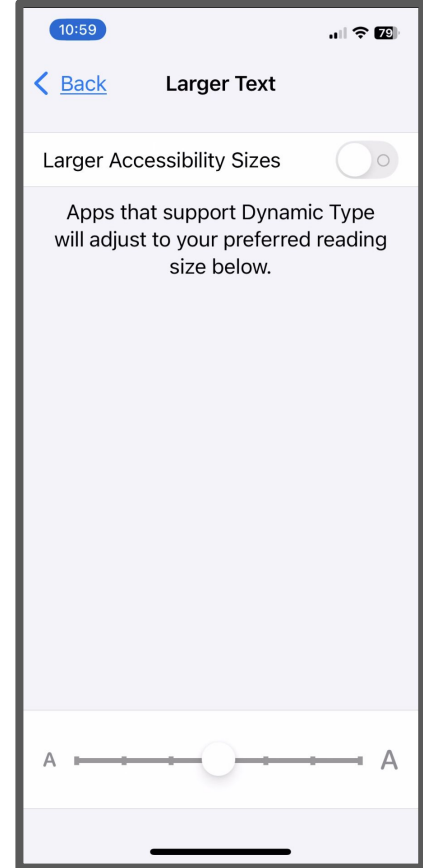
Adjusting Text Size on Your Mobile Device

iPhone/ iPad

- Settings > Accessibility > Display and Text Size > Larger Text > Slide the bar to adjust size
 - Toggle on Larger Accessibility Sizes for extra-large text
 - You can also go to Control Center > “AA” to change text size quickly

Android Phones/ Tablets

- Settings> Accessibility > Display size and text (ofr Font size on some models)=> move slider until comfortable
- Use bold for extra clarity



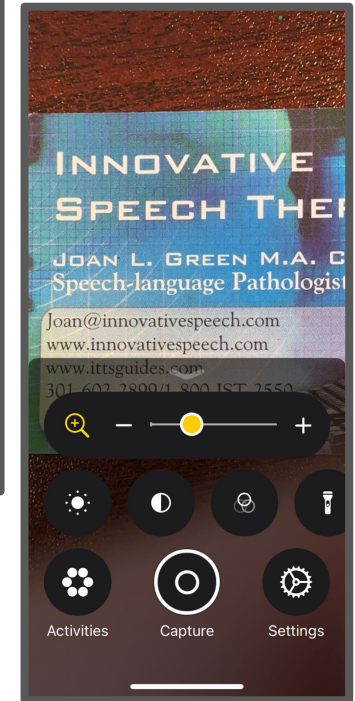
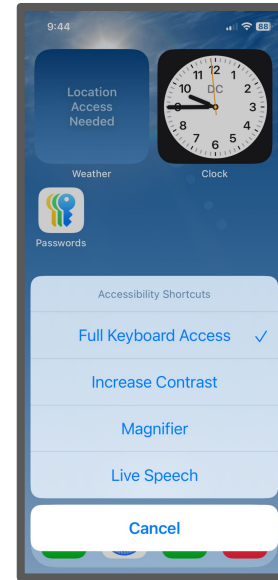
Built in Zoom

iPhone/ iPad

- Settings> accessibility > Zoom> toggle on-
double-tap with 3 fingers to zoom in and out

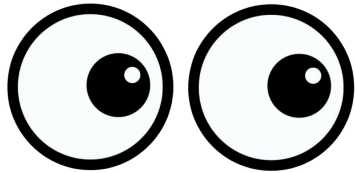
Android phones/ Tablets

- Settings> Accessibility> **Magnification**>toggle on- tap the accessibility button or **triple-tap the screen**
- **Camera Magnifier**- often found under vision enhancements- freeze the image and zoom in



Scenario 2

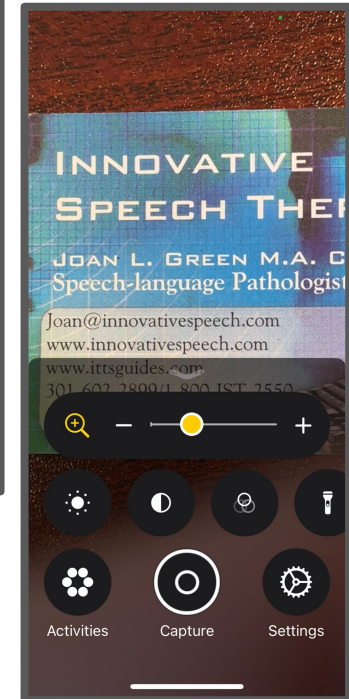
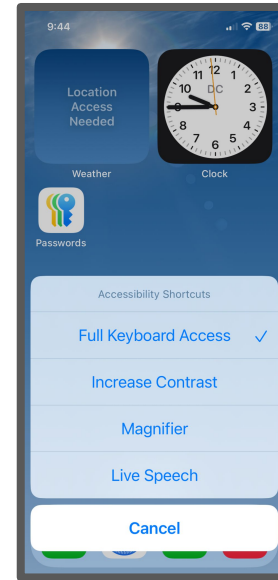
Jimmy has a hard time reading menus when at a restaurant- especially when there is poor lighting.



Magnifiers

Built in magnifiers/ Zoom

- These use the device's camera and often have flashlight to help in dark environments.
- iPhone/ iPad
 - settings > accessibility > magnifier > toggle on- triple click the side button (or home button) to activate
- Android phones/ Tablets
 - Android Play Store-
 - [Google's Magnifier](#)
 - [Magnifying Glass+ Flashlight](#)



Practical uses of magnification and Zoom

- Reading prescription bottles, menus, or doctor instructions
- Zooming in on appointment reminders or maps
- Reading labels or recipes while cooking
- Enlarging handouts or schedules
- Using magnifier during telehealth visits to view instructions on screen



Scenario 3

Latisha has a hard time reading emails and texts especially after having a seizure.



Text-to-Speech (read aloud)

Listen to text read aloud

All devices can read aloud for free!

The new AI voices are amazing!

Helpful for :

- Small print
- Low vision or visual perceptual challenges
- Attention or memory challenges
- Reading difficulties
- Prefer to listen rather than read with eyes



iDevices

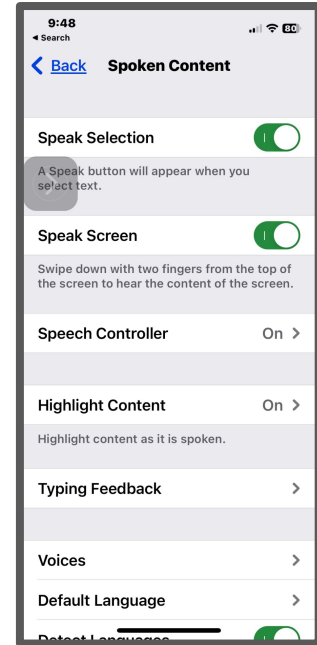
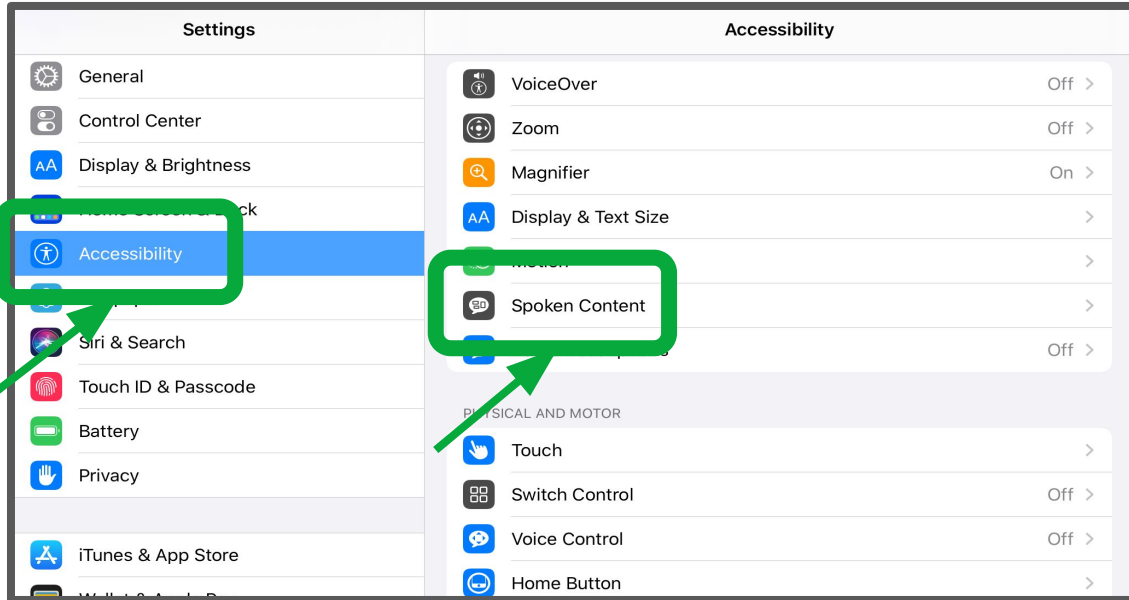
Speak Selection Speak Screen



- Settings > Accessibility > Spoken Content
- Speak selection- select text then touch “speak”
- Speak screen- swipe down with two fingers from the top of the screen and then press play

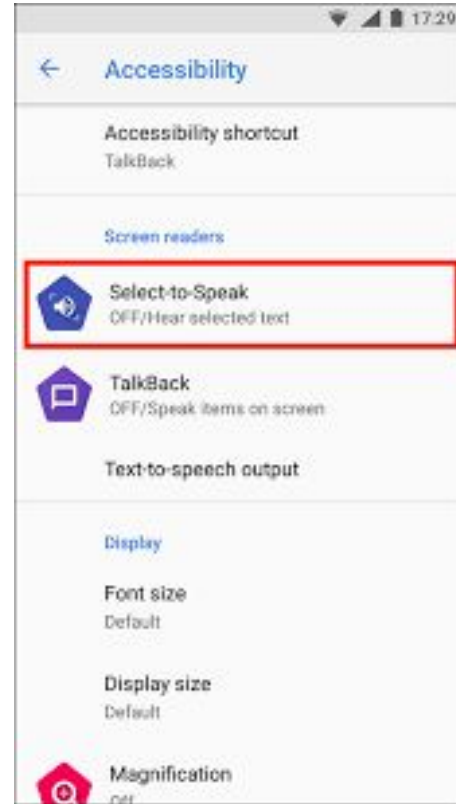
Accessibility features- iOS

iOS



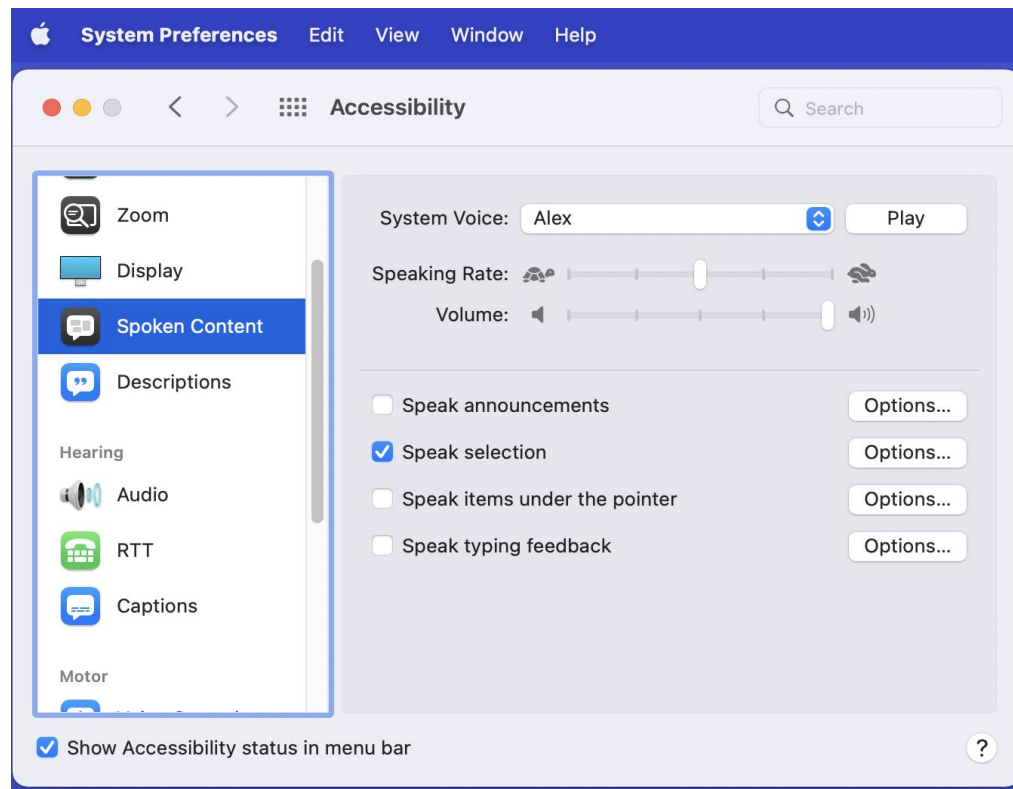
Android phones

- Android 11 and up
- Settings > accessibility> Select to Speak
- If doesn't work- go to Google Play store and download the Android Accessibility Suite
- Turn on Select to Speak Shortcut (2 finger swipe up) or 3 finger swipe if TalkBack is on, or tap the accessibility button
- Tap Play



Read aloud- Mac

- Apple menu > system preferences> Accessibility> Spoken Content selected text when the key is pressed
- Option + Esc



There are lots of options for reading text aloud

It can get complicated but it is possible!

Browsers

- Microsoft Edge- [Immersive Reader](#)
- Chrome- need to add an extension (ie [Read&Write](#) by Everway) or use device read aloud settings.

Devices

- “Turn on” in settings of computers, tablets and phones

Documents

- PDFs may require a special app

Books

- Learning Ally, Bookshare, AudioBooks, Libby, Hoopla

Cross Platform

- [Speechify](#)

Scenario 4

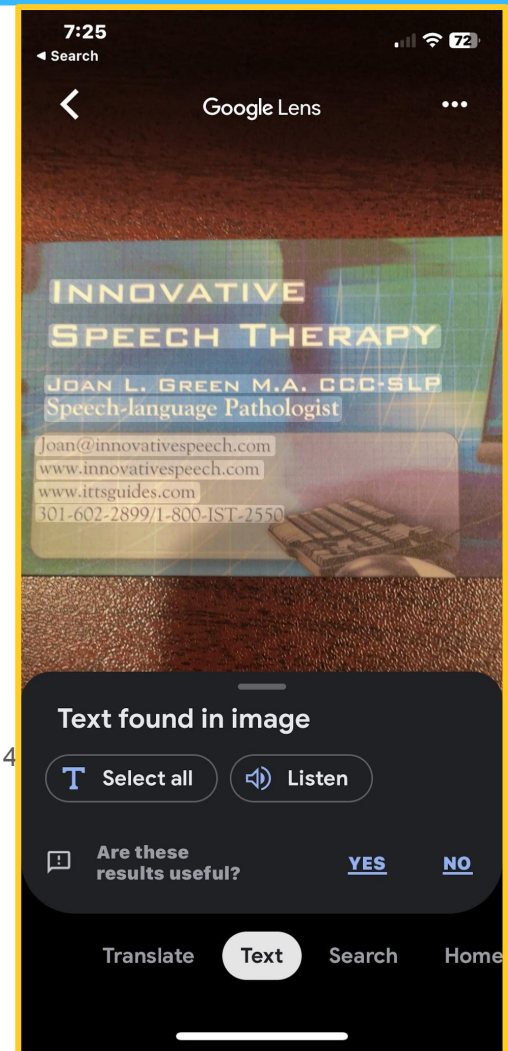
Amina has an increasingly hard time reading signs and papers



Google Lens

- This app uses the phone's camera.
- On iPhones use the Google app and tap on the Lens icon.
- On android look for the lens icon on the right side of the Google search bar.
- Take a picture of text in environment (a sign, book, handout)
- **Tap on the highlighted words and it reads it them out loud immediately!**
- It can also translate and copy and paste.
- Free

[How to use Google Lens](#)



SeeingAI

- A free AI powered app developed by Microsoft
- Reads Text aloud
- Designed to help people who are blind or have low vision
- Provides auditory descriptions of the environment

Available for iOS and Android

Some of the features require an active internet connection through Wifi or mobile data

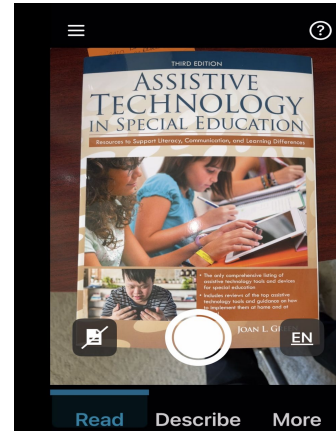
It performs better on newer devices



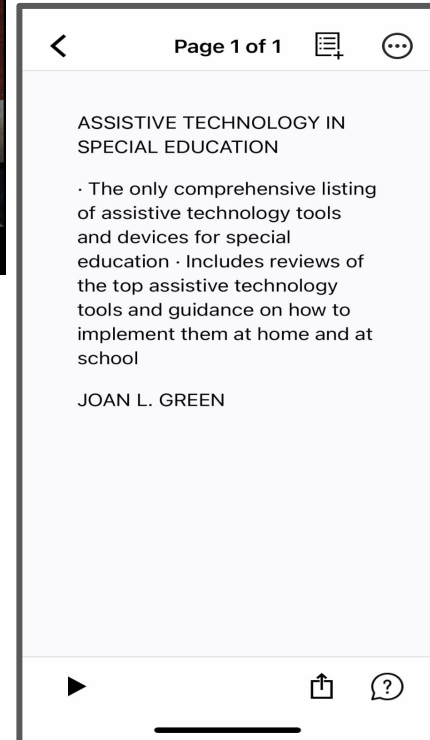
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Read with Seeing AI

- Point your camera at menus, signs or medicine bottles. It will read it aloud.
- It recognizes many languages!
- For better accuracy, tap the “take picture button to capture the image of the text.
- Press play to have it read aloud with highlighting or use Voice Over commands to navigate it.
- You can ask questions about the text- Tap “ask seeing AI” and type or use the microphone on your phone. Answers are AI generated.
- When capturing document you can use image detection. Need high contrast

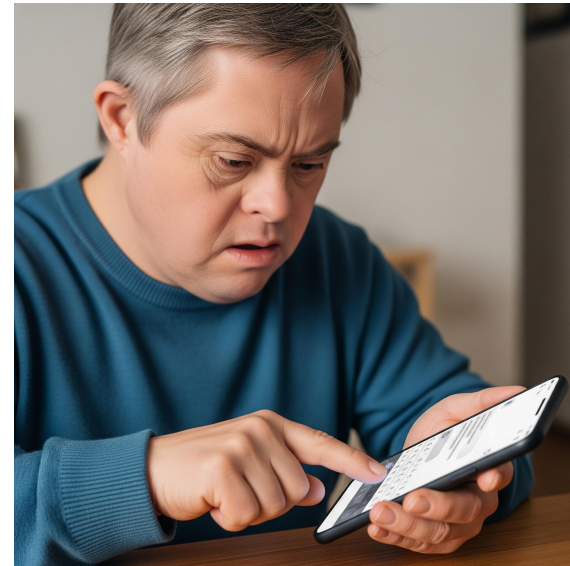


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Scenario 5

Thomas has a hard time typing. He has poor dexterity which has gotten worse as he's gotten older. His speech is difficult to understand.



Speech to Audio

When words don't come out clearly...

There's another way..

- Dictation and “voice typing” tools often misinterpret speech, causing frustration.
- It may be better to record the person's real voice to share messages, stories, or reminders.
- No typing or spelling is needed
- Keep the sender's real voice and motion
- Simple, private and fast



Apps that can send messages with audio recording

Google Messages App

iOS Messages app

WhatsApp

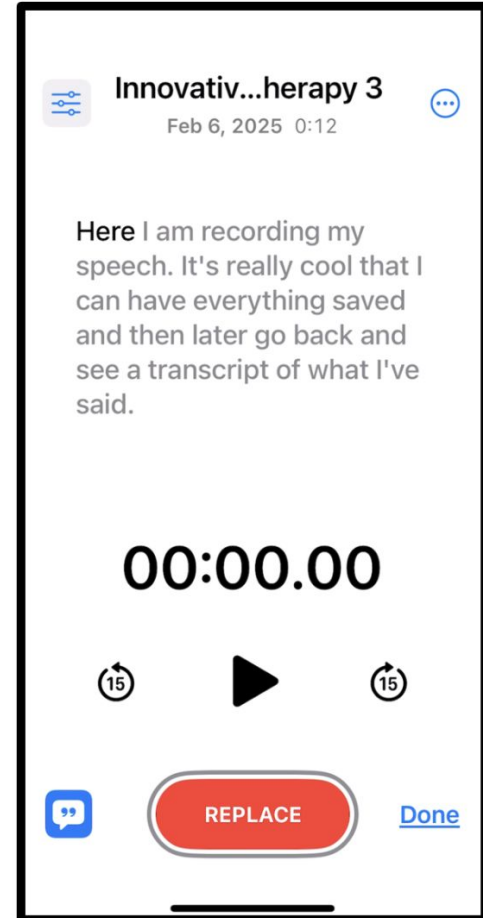
Facebook Messenger



Voice Memos – iOS



- Speech to audio
- Preinstalled on iPhone and iPad
- Open the app → tap the red record button, tap Stop when finished
- Name the recording
- With iOS 18 on iPhone 12 and later models, will offer a transcription
- Can view live, edit, and transcribe older recordings
- Robust sharing menu – Files, Google Drive, etc.





Training Tips

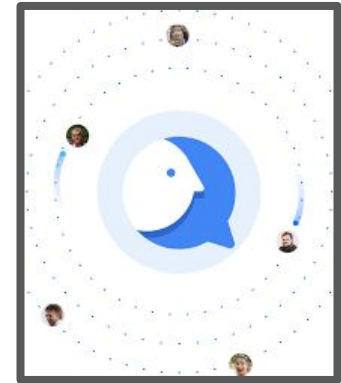
- Start small: practice with 5–10 second recordings.
- Encourage using emotion or keywords (“I’m ready,” “I ate lunch”).
- If speech is unclear, label frequent recordings (e.g., “Good morning” or “Call me”).
- Use photo or emoji prompts alongside recordings to help identify messages.
- Store common recordings in Voice Memos or a Shared Folder for reuse.
- Remind the person to wait for a “ding” or checkmark after sending — this confirms delivery.

Solutions for “nonstandard” speech

If the users voice is hard to understand, training can be done using Voiceltt or Project Relate to create a web app that can “translate” the speech pattern into “intelligible” speech.

[Voiceltt](#) (subscription)

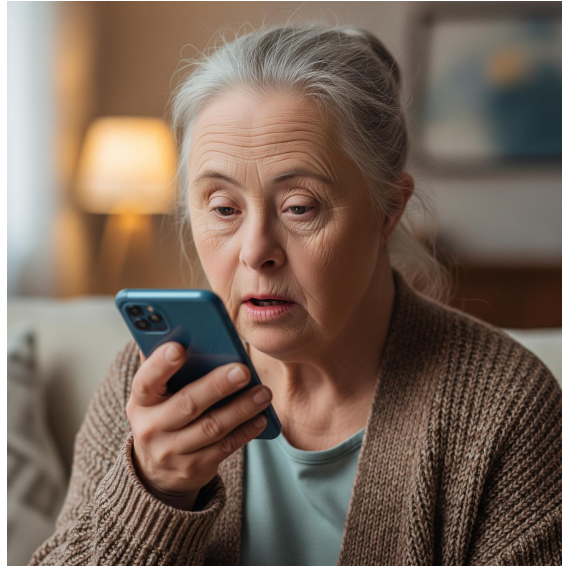
[Project Relate](#) (only on Android)



Speech-to-text (dictation)

Scenario 6

Susie has a hard time typing. She has speech that is easy to understand.



Writing / Typing Support

Try speech-to-text/ dictation

All smartphones can write what you say for free!

It takes practice and requires clear speech and some edits

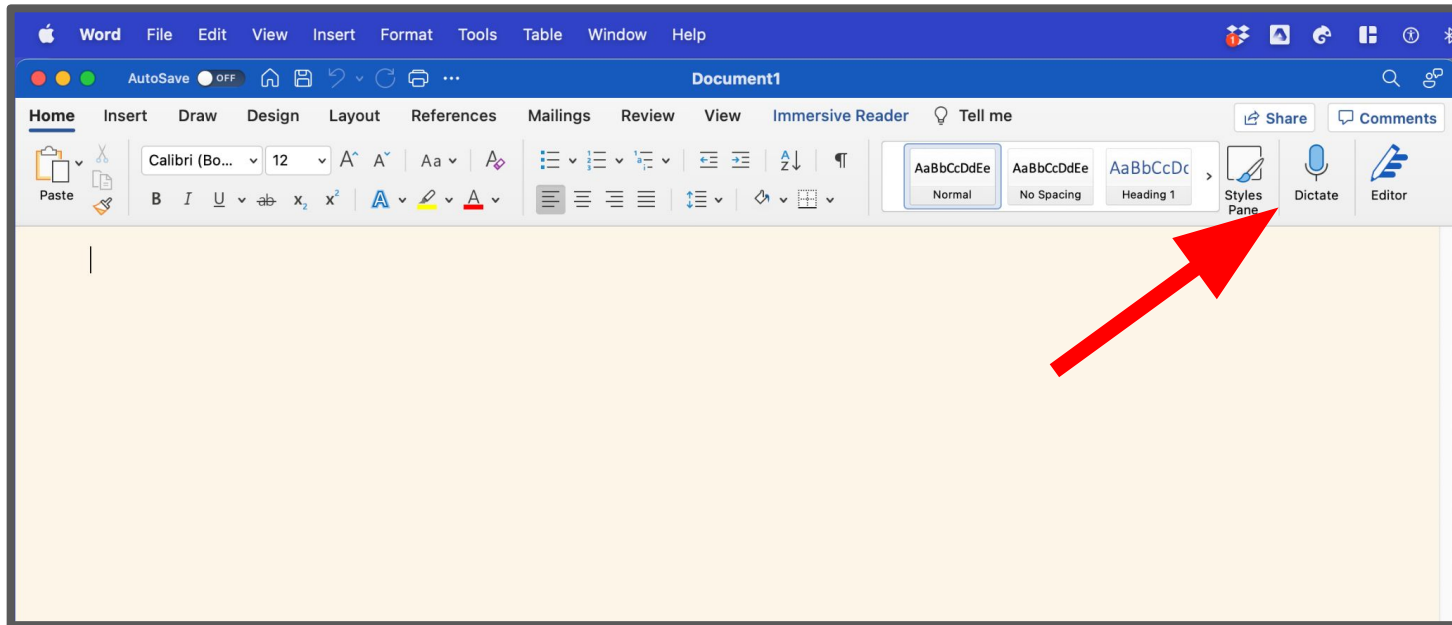


Mobile phones and tablets

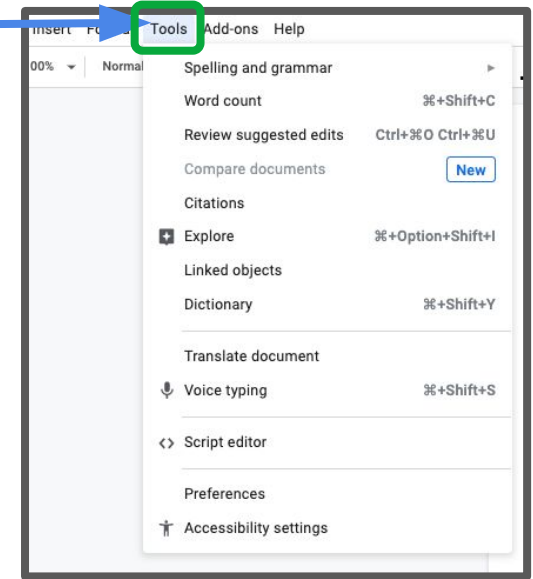
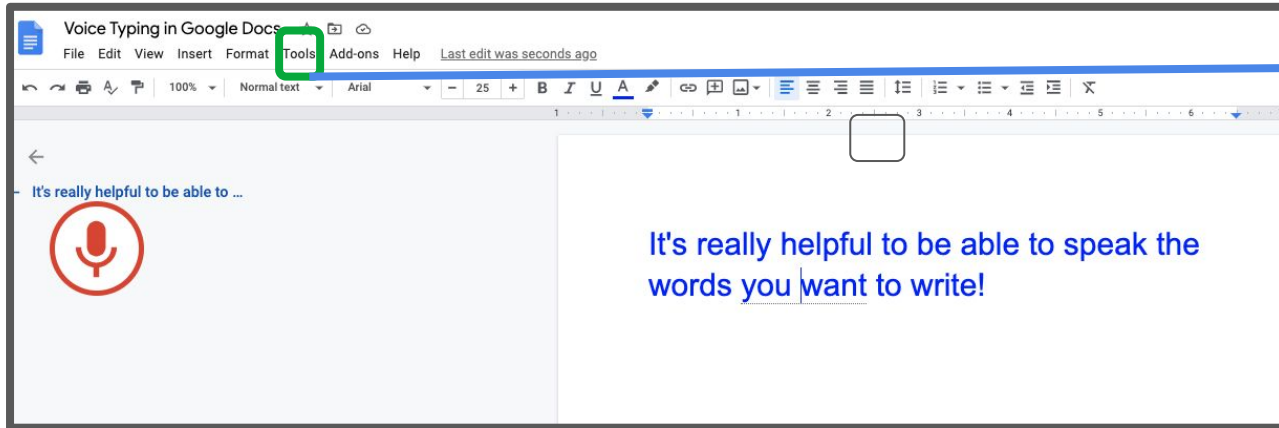
1. Find the microphone on the keyboard
2. Make sure the cursor is in the right spot
3. Tap on the microphone
4. Speak clearly- use punctuation
5. Tap again to stop dictating
6. Edit as needed



Dictation in MS Word 365 and Word for Web



Voice typing in Google Docs on computer



[Docs.google.com](https://docs.google.com)

Tools Menu



Scenario 7

Sam has a hard time communicating on the phone. He can't hear well and misses important information. He is becoming increasingly socially isolated.



Hearing Assistive Technology

Connect Phone to Hearing Aids

Many current hearing aids offer Bluetooth to connect compatible hearing aids

There are also Made for iPhone (MFi) hearing aids specifically made to work with iOS devices.

Audio Streaming for Hearing Aids (ASHA)- For Android phones

Most hearing aid manufacturers offer dedicated smartphone apps that allow you to control aspects of your hearing aids and even remote adjustments by audiologist.



Amplified Speech- Smartphones



Live Listen

iPhone features- turns iphone or ipad into remote microphone!

Stream audio directly into AirPods, Beats headphones or Made for iPhone (MFi) hearing aids.

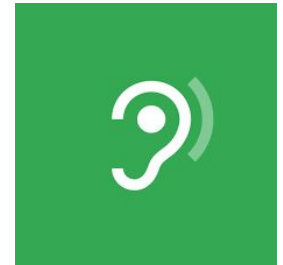


Conversation Boost

For AirPods Pro users, this enhances voice of person in front of you. Go into AirPods settings under Accessibility.

Very helpful in noisy environments or when need to hear someone speaking from a distance

Sound Amplifier (Android): Enhances speech, reduces background noise. Download the app if not already on phone.



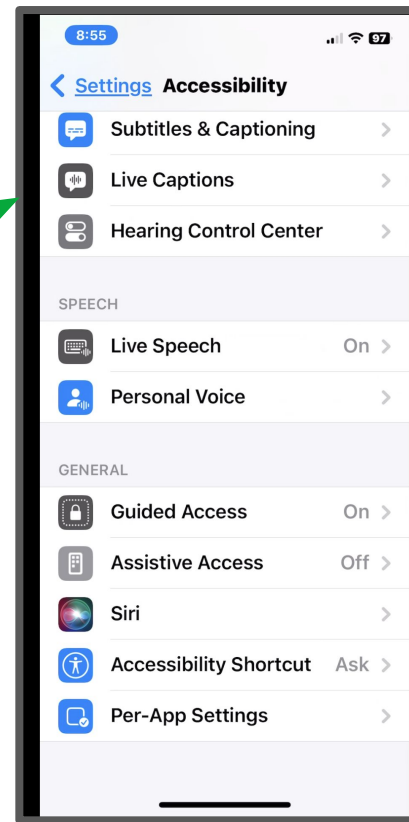
Live Captions on Your Smartphone

Enable the captions for in-person conversations or to use while having a phone call!

iPhone- Settings > Accessibility > Live Captions
(need at least iOS17)

Android phones- live captions came first on Pixel phones.

- Require Android 10 or newer



Apps with instant transcription

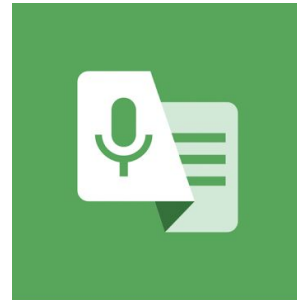
If live captioning is not available on your phone- these apps are great!



[Live Transcribe- iOS](#)



[Ava](#)- iOS, Android and desktop



[Live Transcribe](#)- Android

Scenario 8

As Maria gets older, she is alone more. It's harder to get out of her home and join social occasions.



Scenario 9

Stuart has a stroke and now has aphasia- he is unable to converse on the phone.

Both comprehension and speaking are difficult.



Video Calls

Video calls

Visuals can be so helpful for learning and engagement!

iPhones- Facetime

Android Phones- [Google Meet](#)

(Zoom, Whatsapp, Messenger, Microsoft Teams)



Simpler video call options



Grandpad



Amazon's
Echo Show-
Drop-in



ViewClix

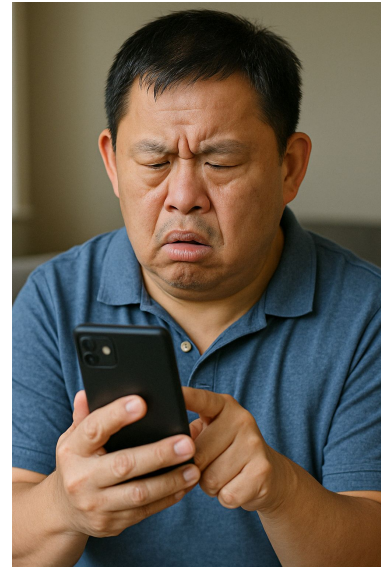


Onscreen-
use TV

Scenario 10

Vince has always wanted a phone but it is just too confusing to use.

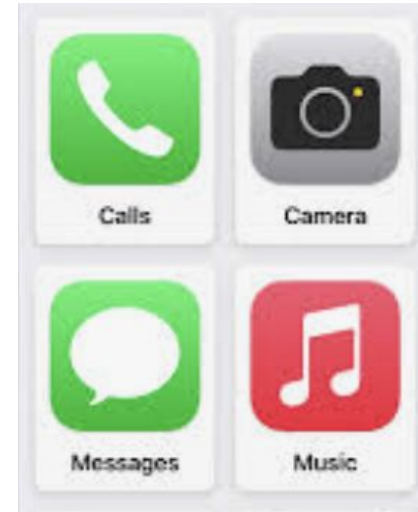
His family is concerned that he will be scammed or get into trouble using it.



Alternatives Protected Simpler to Use

Assistive Access on iPhone

- Settings > Accessibility > General- Set Up Assistive Access
- Apps are redesigned to be larger and easier to use
- A trusted supporter sets it up- uses unique password, need to know Apple ID and password



Raz Memory Cell Phone

- Cell phone for seniors with dementia, cognitive decline, vision loss or an easier-to-use experience
- Tap a picture to make a call
- Video calls, text messaging, wireless charging, big buttons, an extra loud speaker, & charging reminder.
- RAZ Care Caregiver app- Remotely manage contacts and settings from caregiver app.
- Keep your existing cell phone number and provider or change providers
- 3 months free with purchase and then \$20 per month.
- \$349.00 for device

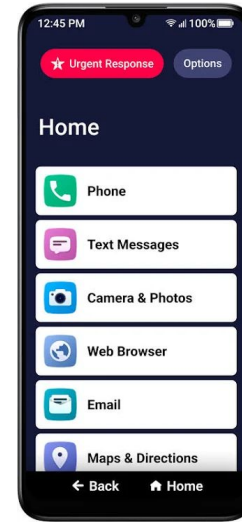


More senior-friendly phones

[Lively Jitterbug Smart4](#)- \$47.99 + Lively Service plan (starting at \$19.99 a month)

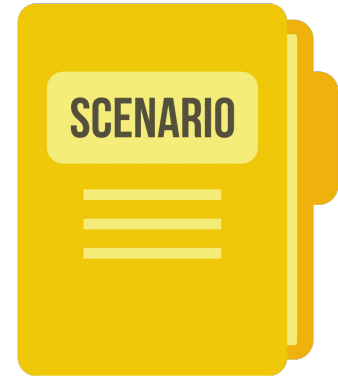
[Lively jitterbug Flip2](#)

[Consumer Cellular IRIS Connect](#)



Scenario 11

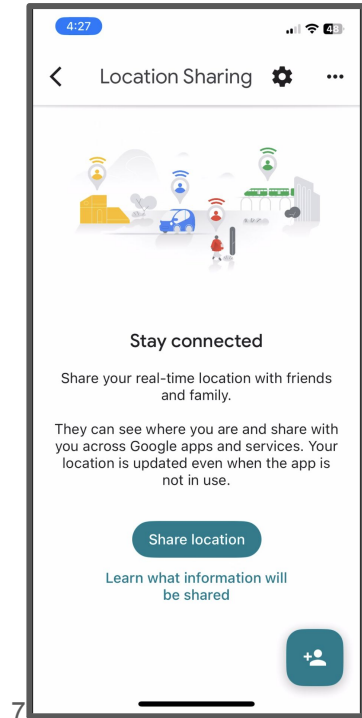
George now tends to wander and get lost



Location Sharing for Safety

GPS tracking tools can be empowering when used for support.

- Make sure to get “informed consent” and share control for tracking.
- Google Maps "Share Location": Can be turned on during a trip and turned off after arriving safely.
 - Tap profile icon- location sharing
- Tile trackers
- Samsung Galaxy SmartTag
- Android's [Find Hub](#)



Apple Devices Location Sharing for Safety

- Enable FindMy App on iPhone to share location with designated person.
- Share Apple Air Tags
- These tools allow trusted caregivers to see a person's location, get alerts, or help locate a lost phone.



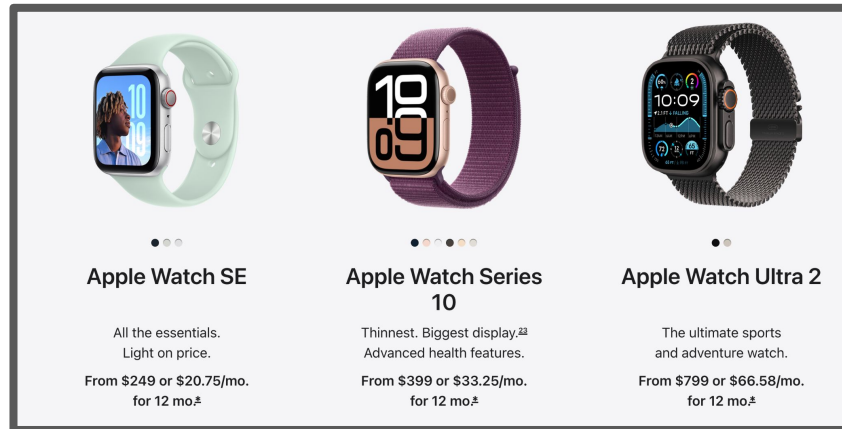
More Tips about Location Sharing

- [Life360](#): Share location in real-time with chosen contacts; includes alerts for arrivals and departures.
- Consider geofencing alerts for specific places (e.g., notify caregiver if individual leaves or arrives somewhere-available in FindMy and Google Maps.)
- Use Check-In texts or calls as part of a routine: “Text me when you get on the bus and when you arrive.”



Apple Watch

- **Fall Detection:** Automatically detects hard falls and calls 911 if the wearer doesn't respond within 60 seconds.
- **Emergency SOS:** With a long press on the side button, the watch calls 911 and notifies emergency contacts.







Apple Watch Cont'd

- **Medication Reminders:** Sends discreet alerts when it's time to take medications, using the Health app.
- **Two-Way Communication:** Allows phone calls, text messages, and voice commands via Siri—great for quick contact.
- **Location Tracking:** Caregivers can use Apple's Find My feature to locate the wearer in real time.
- **Health Monitoring:** Tracks heart rate, irregular rhythms (ECG), blood oxygen, sleep, and activity levels.
- **Accessibility Features:** Offers VoiceOver, AssistiveTouch (control with gestures), extra-large text, and more.
- **Family Setup Option:** Caregivers can manage a watch for someone without an iPhone—ideal for kids or seniors.

Samsung Galaxy Watch

- Device Cost: Approximately \$350 (average price).
- Subscription Cost: Around \$10/month for cellular features (if applicable).
- Typical Battery Life: Up to 72 hours (3 days).

<p>Galaxy Watch Ultra</p> <p>Save up to \$325 with instant trade-in credit.⁹</p> <p>Buy now</p> 	<p>Galaxy Watch7</p> <p>Save up to \$175. Get up to \$175 instant trade-in credit or \$80 off without trade-in.⁹</p> <p>Buy now</p> 	<p>Galaxy Watch6 Classic</p> <p>Save up to \$225 with instant trade-in credit.⁹</p> <p>Buy now</p> 	<p>Galaxy Watch FE</p> <p>Save up to \$50. Get up to \$50 instant trade-in credit or \$50 off without trade-in.⁹</p> <p>Buy now</p> 
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Samsung Galaxy Watch

- **Key Health Features:** Includes hard fall detection, Emergency SOS, ECG, and AI-enhanced sleep apnea tracking.
- **Accessibility:** Provides features like TalkBack, sound detectors, and Voice Access for enhanced usability.

UnaliWear Kanega Watch- Medical Alert Smartwatch

Standalone wearable with it's own cellular and wifi connection that links the user to 24/7 emergency call center.

- Automatic fall detection
- Medication reminders
- GPS location
- One touch or voice activated help
- Swappable batteries- never take off to charge it
- Waterproof- wear in shower



Best Value! Save nearly 20%

Annual Plan

Watch/accessories + set-up: **\$299.00**
+ annual subscription: **\$779.40**

Monthly Plan

Watch/accessories + set-up: **\$299.00**
+ monthly subscription: **\$84.95**

Scenario 12

Maya is having more difficulty walking. It's hard to turn on and off the lights and to answer the front door.



“Alexa, Turn on the Lights”

- Echo devices (like Echo Dot or Echo Show) can connect to smart plugs, lights, and video doorbells.
- Voice commands or app controls allow tasks to be done without touching switches or screens.
- Family or support staff can also help remotely through the Alexa app.
- Smart plugs and bulbs start around \$10–\$20 and can be installed in minutes—no rewiring required.
- Privacy controls
- Reduce stress for caregivers who don't have to physically check in as often



Scenario 13

Marcus and his caregiver have heard good things about using AI- especially genAI but don't know what it can do or how it can help

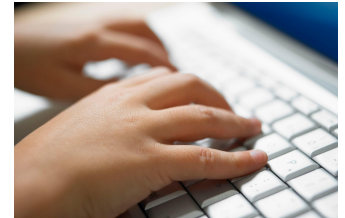
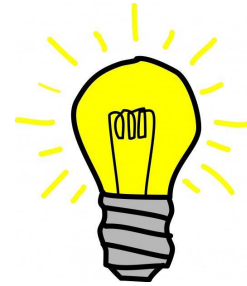


GenAI to help with tasks and tech support

Have you tried interacting with genAI?

It's a great way to get help with everyday tasks: save time- can get great results!

- Accessibility support
- Spark creativity and new ideas
- Plan travel
- Figure out meals with food in the fridge and pantry
- Write emails and reports
- Learn new information
- Summarize



It's not all good

- Privacy risks
- Inaccurate answers/ hallucinations
- Bias and stereotypes
- Lack of transparency- unclear where info comes from
- Over-reliance
- Ethical and societal concerns
- Environmental concerns and costs



Duck.ai



- Go go Duck.ai or duckduckgo.com/chat
- It's browser based- no app
- Focused on privacy
- On mobile, Download the Duck Duck Go browser app
- Pick a model- you'll have options like GPT-4o mini. The paid option offers more choices.
- Start chatting in the chat box
- Chats are stored locally (on devices- not in the cloud)

How can [Duck.ai](#) be helpful?

- Quick answers & explanations
 - Ask questions such as “How can GenAI help me in everyday life?”
- Summarize information
 - Paste in a long article or email and ask, “Summarize this in 5 key points.”
- Practice writing
- Brainstorm ideas
 - Use it for gift ideas, meal plans, or ways to learn something new.

Amazing Resources

Free Tech Hotlines

[Senior Planet Hotline](https://www.seniorplanet.com)- 888-713-3495

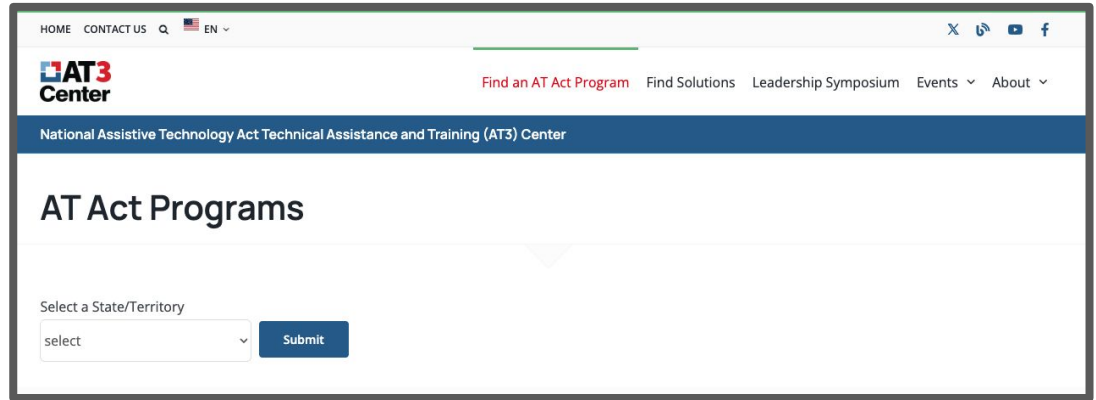
Hotline hours are Monday – Friday, 9:00am – 8:00pm ET and Saturday, 9:00am – 2:00pm ET.

[Cyber- Seniors](https://www.cyber-seniors.com)- 1-844-217-3057



State AT Act Programs

- Tech Guidance and support
- Vary state to state
- Assessment
- Training
- Device Loans
- Device Demos
- Device Reutilization
- Financial Loans
- State Financing



Tech Life Inner Circle Membership

<https://learn.innovativespeech.com/inner-circle>

Weekly Tech Training and Tech Support “Ask me anything!”

Not ready to commit? You’re invited to join once as my guest for FREE!

Email Joan@innovativespeech.com and I’ll send you the schedule, topics and Zoom link.



Free Private Facebook Group - IST Tech Savvy Solutions



Innovative
SPEECH THERAPY Presents:

**IST TECH SAVVY
SOLUTIONS**

JOIN US

Connect. Inspire. Thrive.

Let's help each other.
Everyone is welcome to
join!!

Just answer a few questions

<https://www.facebook.com/groups/ISTTechSavvySolutions/>

Let's stay in touch!

Joan Lipman Green

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FB Group- [IST Tech Savvy Solutions](#)

LinkedIn- [Joan Lipman Green](#)

Instagram- [joanlipmangreen](#)

[Free 15 min phone consultations](#)

