#### 10:39 📳 • 📋 17%

 $\circ$  Search settings

#### Accessibility Display, interaction, audio



# Android Accessibility Hands-On Training



#### Hi, I'm Carrie Morales!

I was born with Aniridia Syndrome and legally blind since birth.

- I'm the creator of "Carrie on Accessibility" on YouTube. I've created over 400 videos about technology, accessibility, and more.
- Also an accessibility/usability tester at Fable, beta tester, and Google Trusted Advisor.





#### Please introduce yourself!



# Android Accessibility





### **Major Android Accessibility Features**

Android Feature	Similar iOS fo	
TalkBack	VoiceOver	
Select to Speak	Speak Screer	
Magnification	Zoom	
Display Size / Screen Zoom	"Zoomed" vie	



#### / Spoken Content

#### w in display settings

### **More Accessibility Features**

- Font size • Bold Text
- High Contrast Text
- Extra Dim
- Dark Mode
- Color Inversion
- Color Correction
- Audio Description Toggle

- Voice Access



• Live Transcribe • Live Captions Sound Notifications Sound Amplifier Switch Control Accessibility Menu

### **Android Accessibility Suite**

÷		Q	•	
	Android Accessib Suite Google LLC	ility		
	Uninstall			
What's r Last updat	<b>1eW •</b> :ed Feb 21, 202	4	$\rightarrow$	
TalkBack • Al-gene of image	: 14.1 erated desci s (English or	riptic nly) .	ons 	

Pre-installed app that helps keep Accessibility features stay updated.

- Can't uninstall
- Updates independently from OS
- Keep this updated
- This will keep TalkBack and some other accessibility features updated
- Samsung Devices it is not preinstalled, but you can install it

A Back and some features updated - it is not precan install it



## **Setting Up**

Welcome! English 🔻 Start Emergency call Accessibility

Turning on TalkBack Press and hold volume buttons (twice)

- Tap and hold with 2 fingers
- Samsung only Quick press

Tap Accessibility to adjust other settings

volume up and side buttons (twice)



Welcome!



@carrieonaccessibility

3 shortcuts to turn Talkback on during

#### How to Turn on TalkBack **During Android Set Up**





### **Choose a Navigation Mode**



#### Gesture navigation

To go home, swipe up from the bottom of the screen. To switch apps, swipe up from the bottom, hold, then release. To go back, swipe from either the left or right edge.

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#### 3-button navigation

Go back, Home, and switch apps with buttons at the bottom of your screen. Go to settings > system > navigation mode Choose a navigation mode • Gesture navigation • 3 button navigation Gesture navigation

- Swipe up for home
- Swipe from the edge for back
- Swipe up and hold for recent apps
- Use two fingers with TalkBack



## **Volume Key Shortcut**

Automatically set to TalkBack

- Will ask for confirmation for first time use
- Can set for other accessibility features
- Can set multiple features to this shortcut, but it will show a menu
- Samsung phones hold buttons for an extra 1-2 seconds

Hold volume keys Press & hold both volume keys



## LET'S TRY IT!

#### Let's all try the volume key shortcut and try turning TalkBack ON and OFF



## Accessibility Button (nav bar)

When using 3 button navigation

- Icon on bottom right corner (nav bar)
- Can assign multiple features to this shortcut
- Choose 1 feature and quick tap to activate that feature
- Tap and hold to switch to another featrure
- Samsung phones if multiple features are assigned, a menu will always show



#### bar) his shortcut activate that feature r featrure tures are assigned, a



### **Accessibility Gesture**

When using gesture navigation

- Swipe up with two fingers from the bottom edge
- With TalkBack, swipe up with three fingers from bottom edge
- 2 finger swipe up and hold, then release to switch accessibility feature
- Samsung phones: if multiple features are assigned, a menu will always show

**Choose a feature** to use with the accessibility gesture (swipe up from the bottom of the screen with two fingers):





## Accessibility Button (floating)

When using gesture navigation

- Icons will appear floating above other apps
- Can change size and opacity
- Can assign multiple features
- Swipe to edge to hide
- Samsung phones: swipe to edge to hide buttons (will collapse into menu)





When using gesture navigation, you can only choose one: accessibility floating button OR accessibility gesture, not both

### Samsung Only: Volume Up and Side Key Shortcut

Automatically set to TalkBack

- Quickly press the volume up and side key at the same time
- Can assign multiple features
- If multiple features assigned, a menu will always show

Side and Volume...
Choose what to use
when you press the
Side and Volume up
buttons at the same
time.









## (LET'S TRY IT!

#### On Samsung devices, try the volume up and side key shortcut and try turning TalkBack ON and OFF





#### **4 Android Accessibility Shortcuts - Explained**





# Navigating Accessibility Settings

## Let's Explore the Accessibility Settings Together!

# Explore the Android Accessibility Settings!

Navigate to settings:

- Icon on home screen
- Quick settings shortcut
- Use Google Assistant
- Samsung phone settings icon in notification shade & quick settings



#### **Select Accessibility**



 Use "settings search" • Tell Google Assistant: "Open Accessibility Settings" Samsung devices - it is near the end of the list of settings

### **Accessibility Settings Shortcut Widget**



You can also add a "accessibility settings shortcut widget" to home screen

Select settings shortcut from widget list, then select accessibility from the list



Accessibility





"Downloaded Apps" in Accessibility settings These have access to accessibility permissions Enables accessibility shortcuts



#### **Common Android Accessibility Features for Vision Impairments**

#### **Screen Reader**



 TalkBack is the built in screen reader on Android Other screen reader: CSR

(Commentary Screen Reader / Jieshuo)

 Samsung has its own version of TalkBack which is slightly different

Updates from Galaxy store

## **Display and Text Size**





**Font size** Make text bigger or smaller

**Display size** 

Make everything bigger or smaller

- Text Size
- icons
- Bold Text
- text

#### Display

**Display size** and text

### Display size: increase size of layout items like buttons and

# High contrast Text: Outlines

## **Samsung Vision Enhancements**



Samsung Settings > Accessibility > Vision Enhancements Display Size is called Screen Zoom on Samsung

## LET'S TRY IT!

# Adjust the display and text size options and see what it looks like



#### **Color and Motion**

÷	Accessibility	
Display		
A	Display size and text	
	Color and motion	
*	Extra dim Dim screen beyond your phone/c Pixel	

- Color correction: color filters including grayscale
- Color Inversion
- Dark theme
- Remove animations
- Large mouse pointer

### Setting Up a Shortcut

**Color inversion**  $\leftarrow$ Use color inversion Options **Color inversion** shortcut Accessibility gesture **(i)** Keep **Pixel** 

1. Navigate to an accessibility feature 2. Tap on the LEFT of the toggle 3. Choose a shortcut 4. Tap "more options" to choose button or gesture



### LET'S TRY IT!

# Set color inversion to the accessibility button or accessibility gesture

## Extra Dim & Magnification

**Extra** dim **Dim screen** beyond  $\bigcirc$ your phone's minimum brightness

Accessibility

 $\leftarrow$ 

Ð

Magnification Shortcut on

Select to Speak Shortcut on / **Pixel** 

- Extra dim decreases screen brightness (may be helpful for light sensitive users)
- Magnification zooms in on the display
# **Select to Speak**

Accessibility Magnification € Shortcut on Select to Speak ٩ Shortcut on / Hear selected text

**Interaction controls** 

•••

Accessibility Menu

Shortcut on / **Control device via** 

**Pixel** 

 Reads text on screen without turning on a screen reader

 Can read in the background while using other apps

# **Select to Speak**

1.7 Mon, March 11 **Pixel** 

- Tap on play to read all
- Tap on an item to have it read aloud
- Select what you want read by drawing a box around it • Drag from top left to bottom right
- Move controller around
- Tap "<" to expand menu</li>



### Set select to speak to a different shortcut and use it to read something on the screen



# More Android Accessibility Features

# Interaction Accessibility Settings

**Accessibility Menu** - large on screen buttons. (Brightness up/down, volume up/down, and more)

Voice Access - Use voice to control device Vibration and Haptics - adjust intensity Switch Access - control device with switches and front camera

Timing Controls - adjust time for interactions System Controls - change navigation mode, power button to end calls, auto rotate toggle



# **Captions Accessibility Settings**

**Live Captions** - Captions from device audio (can access from volume panel) Live Transcribe -Transcribe spoken content from device microphone **Caption Preferences -**Adjust size and color Real Time Text (RTT) -Show or hide for calls

etan Live... English best of double tap on YouTube. Your chance to catch up on the videos. We posted this week. Now, here's your hosts. Steven, Scott, and Sean.

Double Tap



Tap

-5

5:47 PM

### How are you doing today?

1**0**1

:::

I'm doing pretty good. Thanks.



Live Transcribe

### **Audio Accessibility Settings** Audio description - Toggle attempts to automatically turn on audio descriptions Sound amplifier - use headphones to

- improve audio
- Sound notifications Get notifications
- about important sounds
- Flash notifications flash the screen or flashlight for notifications
- Audio adjustments mono audio or adjust left/right balance

### Flash notifications

 $\leftarrow$ 

Flash the camera light or the screen when you receive notifications or when alarms sound



**Camera flash** 

Screen flash Yellow

Preview

**Samsung Only Vision Enhancements High Contrast Themes** < Color filter **High Contrast Keyboard** On **Highlight Buttons - Buttons** will have a background fill Color Filter - Overlays a color Opacity 20% of choice and can adjust opacity **Relumino Outline** - adjust color and thickness of text and images outline



# **Relumino Outline Examples**

### < Relumino outline On

See objects in images and videos more clearly with strong outlines. Adjust the color and thickness of the outlines to make them stand out.

### < Relumino outline On



See objects in images and videos more clearly with strong outlines. Adjust the color and thickness of the outlines to make them stand out.



See objects in images and videos more clearly with strong outlines. Adjust the color and thickness of the outlines to make them stand out.



### **Samsung Only Vision Enhancements** Reduce transparency and blur Magnifier - Samsung only Thermal flask, Speaker Cursor Thickness - Adjust thickness of the text cursor Speak keyboard input aloud announce characters, words, or both without TalkBack **Bixby Vision - similar to Lookout** Object Voice Labels - Uses NFC tags ACCESSIBILITY Ð



Answering and en... <

**Read caller names** aloud

Answer automatically

**Press Volume up to** answer calls

**Press Side button** to end calls

Samsung Only Settings under "interactions and dexterity"

Read caller names aloud - even without TalkBack on Answer Automatically Use volume up to answer calls

1:17 📥 🖪 🛨 🔹

N 54 JU 99%

< Advanced settings

Accessibility shortc...

Accessibility button/gesture **Select to Speak** 

Side and Volume up buttons **TalkBack** 

Volume up and down buttons **Color inversion** 

**Notifications** 

**Flash notification** 

# **Assigning Accessibility** Shortcuts

Most Android Devices 1. Navigate to accessibility feature For Samsung Devices 1. Go to Advanced Settings and select shortcut you want to customize

- 2. Set accessibility shortcut one at a time
- 2. Check all features to asign to shortcut



### **Does anyone have any questions** about what we've covered so far?







# **Android Magnification**



 Select magnification shortcut Triple tap is under "advanced" • This may slow down device responsiveness, but is very easy • Drag 2 fingers to pan Triple tap and hold, then drag to pan

quickly

 You can set magnification to full screen or partial or have an icon to easily switch Tap settings gear on bottom right

# **Android Magnification**

1:49 • • 54% 1:48 Mon. March 11 Pixel

Partial Magnification bottom edge of lens You can adjust size or switch to full Allow diagonal only for partial mag



- options (bottom right of lens)
- Tap lens icon for magnifier Adjust zoom "Edit" to adjust window size

- Use 2 fingers to pan or tap and drag on

# Android (@) Magnification

### How to Use Magnification on Android & Everything You Need to Know! #accessibility



**Choose triple tap for magnification** Try zooming in, panning, and quick panning Try full screen and partial magnification **Adjust partial lens size** 





### Let's all take a quick break!



# TalkBack



# **Talkback Basics**

### TalkBack

 $\leftarrow$ 

TalkBack provides spoken feedback so that you can use your device without looking at the screen. TalkBack can be helpful for people who have difficulty seeing the screen.

Use TalkBack	
Pixel	

TalkBack is Android's screen reader You can use Google Assistant to turn it on (Sometimes, this does not work because it's not set up or can be glitchy on some Samsung devices)

### It will not feel the same as VoiceOver and may not feel as responsive

# Talkback Basics (continued)

 $\leftarrow$ 

### **TalkBack tutorial**

### Swipe right to select a topic

**Basic navigation** Δ Move between items. scroll. use menus. and more

### <u>A</u> Text editing

Type, select, edit, copy, and more

### **Reading navigation**

Read by word or character, and jump between links, controls or headings

**Pixel** 

TalkBack has a "tutorial" which can be very helpful for new users.

- Auto launches for first time users
- It's also accessible if you go to TalkBack > Settings > "Tutorial and help"
- There's also a place to practice gestures in this menu

# TalkBack/Accessibility Volume

To adjust TalkBack's volume, adjust accessibility volume Tap and hold with one finger on the screen while pressing the volume buttons

You can also add "accessibility volume" to reading controls in TalkBack settings under "customize menus" > "customize reading controls"

You can also use the volume panel (opens when volume button is pressed)

**4**)  $\bullet \bullet \bullet$ 

### **TalkBack Basics Gestures**

Explore by touch - drag one finger across the screen to announce item under your finger Swipe right - next item Swipe left - previous item Double tap - activate focused item 3 button navigation - double tap on buttons Gesture navigation

- 2 finger swipe up for home
- 2 finger swipe from edge for back
- 2 finger swipe up and hold for recents







**Turn on TalkBack** Navigate through home screen **Open an app** Go back to home



# **TalkBack 2 Finger Gestures**

- 2 finger gestures "pass through" to system
- 2 finger swipe down from edge notification shade 2 finger swipe left - next page / scroll next 2 finger swipe right - previous page / scroll previous 2 finger swipe up in middle of home screen - app drawer 2 finger drag up - scroll down 2 finger drag down - scroll up
- The faster you drag up or down, the more you will scroll up or down

Open notification shade Swipe to next and previous home screen pages Open app drawer Scroll up and down the app drawer



TalkBack Rotor - "reading controls" 3 finger swipe down/right - next reading control 3 finger swipe up/left - previous reading control 1 finger swipe up/down - Adjust or navigate by reading control OR move to next/previous action **Double tap on desired action** 

Older phones without multi finger gestures: Swipe up, then down - Previous reading control Swipe down, then up - Next reading control

**Choose words from reading controls** Navigate by words **Change speech rate Try TalkBack actions on homescreen Try TalkBack actions on recent apps** 



# Some TalkBack Multi Finger Gestures

3 finger tap - open the TalkBack menu
2 finger tap - pause speech
2 finger triple tap and hold - toggle speech
2 finger double tap - pause/play media or answer/end calls
4 finger tap - practice gestures

4 finger double tap - tutorial & help menu

# ger Gestures

Open the TalkBack menu, then close it Toggle speech ON and OFF Open "tutorial & help" using gesture Open "practice gestures" using gesture Some Talkback Angle Gestures When performing gesture, make one continuous movement with a sharp corner (like writing an L) Make sure to begin gesture as soon as you touch the screen Swipe up, then left - home Swipe down, then left - back Swipe right, then down - notifications Swipe left, then up - recent apps Swipe down, then right or swipe up, then right - Open talkback menu Swipe right, then up - voice commands



**Open "practice gestures"** Try to do some angle gestures **Dismiss "practice gestures"** Try to go home, back, notifications, recents, TalkBack menu, and voice commands



# **TalkBack Back and forth Gestures**

When performing gesture, make one continuous movement with a sharp reverse turn (You can also think of it like drawing an arrow ^) Make sure to begin gesture as soon as you touch the screen

Swipe up, then down - previous reading control Swipe down, then up - next reading control Swipe right, then left - scroll back Swipe left, then right - scroll previous

**Open "practice gestures"** Try some back and forth gestures **Dismiss "practice gestures"** Use reading controls with back and forth gestures Scroll to next and previous home screens with back and forth gesture



# **TalkBack Voice Commands**

There will be an accessibility sound unless device is set to vibrate/mute.

Swipe right, then up - Start TalkBack voice command

- Help (all commands)
- Home
- Back
- Recents
- Notifications
- Quick settings

- Speak faster
- Speak slower
- Next [heading]
- [Words]
  - navigation
- Find [item]
- Read from next

- Label [say label]
- Actions
- TalkBack settings
- Text editing
- Type [say what
  - you want to type
### LET'S TRY IT!

Try some TalkBack voice commands Navigate home, recents, back, notifications, all apps Try speak faster and slower Show and hide screen **Open help and look through the different options** 



### **Navigating to TalkBack Settings**

Ways to get to TalkBack Settings

- Navigate by going to settings > accessibility > TalkBack > settings
- Open TalkBack menu (3 finger tap), and select TalkBack settings
- Use voice command "TalkBack settings"

## LET'S TRY IT!

### Try different ways to open TalkBack settings



### **TalkBack Settings**

**RECOMMENDED:** Turn off "use proximity sensor"! (not available on Samsung)

- Text-to-speech settings (many ways to get here)
- Verbosity how much information will Talkback give?
- Sound and vibration toggle sounds, toggle vibration, toggle audio ducking, adjust volume of sounds
- Customize focus thickness and color of focus indicator
- Customize Gestures View/change actions of gestures
- Customize Menu choose what appears in talkback menu and reading controls

### TalkBack Settings (continued)

- Automatic Descriptions describe icons, images, and text on images
- Braille Keyboard- on screen keyboard (like braille screen input, but it has extra gestures for text editing!)
- Braille display connect/customize a braille display
- Tutorial & help Use "practice gestures", tutorial, or help
- Advanced Settings Element description order, speak passwords toggle, and typing preferences

### LET'S TRY IT!

Look through TalkBack settings **Customize gestures Customize menus Change typing preference** 



### TALKBACK ACTIVITIES



Here are some ideas:

- Type a message or note
- Try creating a contact

# Try navigating and playing some videos on YouTube Anything else you'd like to try!





### **Does anyone have any questions** about what we've covered so far?





### Let's all take a quick break!



# Accessibility Apps



### WeZoom

<sup>9:51</sup> Che top of a magnesium strip. ♥ ♥⊿⊿ ₽,559

3. Bend the exposed wire up and twist it around itself on each side so the copper and magnesium strips are securely connected to the wire.



### **Best magnifier** app on Android (No ads!)

- Color filters
- Buttons (can choose colorful buttons)
- Adjust brightness and exposure

- Has "advanced"
- - keys action
- ...and more!

gestures" mode Customize volume

### Seeing Al

9:35	• 🖉 🖉 58%
	(?)
	Ŭ
	Day 113 Spelling 2 Studen
(Word Study)	
Use the suffix rule to write each new word. Drop the final e and add ed.	rop the final e and add ing.
1. care	3. bake
2. hope	4. smile
Write the base word for each word.	
5. scoring	8. naming
6. smiled	
7. hiked	. caring
Add ed or ing to the base word to complete each sentence. Remember to drop the final e.	
10. I went with my father.	All and the second second
11. Anna her pet turtle Pol	cey.
12. The children were acros	ss the playground.
13. No one ever for you like	Jesus.
Spelling 2	List 21 • 83
•	

### **Seeing Al is now on Android!** This is my top recommendation! Though you cannot add this to an accessibility shortcut, you can use an Android shortcut like "quick tap", add an icon, use Google assistant or use a shortcut app.

### **Google Lookout**



### Current Electricity

When lots of electrons flow steadily from one place to another, they create an electrical current, and that's what you are creating when you make a battery.

In order to create a current, there has to be a difference in electrical charge, or electrical potential, between materials Copper and zinc have different potentials: one is more likely



0

other wants to acquire nem. The flow of electron netal to the other made possible by an electrolyte—a liquid that contains charged particles that react with the metals to create an electrochemic eaction, freeing electrons love between the metals The difference in electrical ootential is known as oltage, named for Alessandro Volta (1745– 1827), an Italian physicis who first demonstrated that different metals could produce an electric curren The stack of metals Volta created in 1800, called a voltaic pile, is what you are reproducing with vo opper and zinc batt

 $\odot$ 

**Pixel** 

to lose electrons while the

Google Lookout is similar to Seeing Al. A few key differences: • Live "Explore" mode announces both text and recognized objects Food labels mode can recognize some foods by image, not barcode Uses menu navigation

You can assign this to an accessibility shortcut.

### Be My Eyes / Be My Al



Use Be My Eyes to My Al!

### connect with a volunteer, specialized help or use Be

### **Reading Mode**



**Tactile Book Builder Kit:** Equipping **Educators to** Meet a Multitude of Needs

At APH, we strive to create products that assist both teachers and students with unique learning needs.



Have articles and emails read aloud, customize the format, and listen in the background.

You can assign this to an accessibility shortcut.



Tactile Book Builder Kit: Equipping Educators to Meet a Multitude of Needs American Printing House

At APH, we strive to create products that assist both teachers and students with unique learning needs. The Tactile Book Builder Kit equips educators with a multitude of materials necessary in building tactile books that meet each student's individual needs

The wide selection of materials in the kit enables users to create a variety of custom-made books, including personalized storybooks, concept books, simple texture books, informational books, alpha bet books adaptations of print books

**@Voice Aloud Reader** FREE Alternative to Reading mode.

It is free, but the interface is a bit clunky as there are a lot of features.



Tactile Book Builder Kit: **Equipping Educators** to Meet a Multitude of

### Needs

March 11. 2024

At APH, we strive to create products that assist both teachers and students with unique learning needs. The **Tactile Book Builder Kit equips** educators with a multitude of materials necessary in building tactile books that rept each student's individual



≫ 1.1×

Speechify PAID (has free version) alternative to reading mode. It has nice voices and cleaner layout.



### **@Voice Aloud** Reader (TTS)

**Hyperionics Technology** Contains ads

Uninstall

Open



### Speechify Text to **Speech Voice**

Speechify - Text To Speech | **Dyslexia Reading** In-app purchases

Uninstall

Open

### **Big Launcher**



Home screen replacement: Make your home screen icons and more extra large!

 Tap and hold to read aloud



- Big Phone and Big SMS also available
- Paid app



### Nova Launcher

# 10:32 • 🗸 🖉 50% 10:32 Mon, March 11 Pixel

10:32 € • ⊿⊿ 🖬 50%		
÷	Nova Settings	Q
([)	Home screen Set grid, icon layout, dock settings, and more	
:::	App drawer Set layout, style, opening gestu and more	ıre,
â	Folders Set window styles, background colors, and icon layout	
e. E.	Search Nova's search window and bar configuration	
<b></b>	Look & feel Icon preferences, popup menu, and notification bar options	
S	Night mode Schedule automatic dark mode based on time or location	
00	Gestures & inputs Define secondary home button action, along with swipe, tap, a pinch gestures on home screer	nd
ጜ	Integrations Sesame Shortcuts	
	Notification badges Choose from dynamic badges	

Home screen replacement that is very customizable and accessible with a screen reader.

Has customizable gesture shortcuts like pinch in or out and 2 finger twist clockwise (similar to iOS rotor!)

### **Pixel Only Magnifier**



Pixel now has its own magnifier available on the Google Play store



### Vocalizer TTS

US Eng	glish	Ø	:
	Evan PURCHASED	□))	$\bigcirc$
			$\bigcirc$
			$\bigcirc$
	Allison	⊏)))	
	Ava	⊏)))	



Use a different voice for TalkBack and other apps that use a TTS (text to speech)

\$3.99 per voice

### Digi Clock Widget

10:32

Mon, March 11



Add the largest possible clock widget on the home screen.

Fully customizable and also has advanced shortcuts.

FREE with in app purchases (no compelling reason to purchase IMO)



### **Button Mapper**



Customize the volume buttons. I recommend only using "long press" and not changing other settings.



### Goodlock



### For Samsung devices only

Add extra customization to your phone. For example, set volume keys to skip to next or previous tracks even when the screen is off.

## More Android Apps

- BARD mobile
- Aira Explorer
- Envsion AI
- Supersense
- Lazarillo
- RightHear
- Bookshare
- Bing (Co-Pilot)
- Action Blocks

- Live Transcribe
- Audible
- Libby
- Librivox
- Tile
- Recorder
- Alexa App
- Action Blocks



## Other Helpful Android Tips

- Pixel "quick tap" double tap the back of the phone to open apps, toggle flashlight, play/pause media and more.
- Double press side button launches camera (Samsung: you can customize this to open any app.
- Customize Lock Screen add shortcuts and make the clock very large
- Direct Call or Direct Message widgets tap widget to call or message from the home screen

## **Other Helpful Android Tips (cont.)**

 Use Gboard - best keyboard with clipboard and dictation is better on Gboard. (Use Samsung keyboard is high contrast keyboard and read keyboard input aloud is important for user) • Customize Quick Settings - organize quick settings in order and position best for user. Tiles like dark mode, reading mode, text size, color inversion, and flashlight may be helpful to add



# Why choose Android?

# **Reasons to choose Android**

- Price For TalkBack users, it is recommended to NOT use budget phones!
- Customization The device can be customized more than an iPhone, especially for more advanced users. There are also many device choices.
- Comfort / familiarity Some started with an android and know it very well
- Ecosystem Easier to use Google products, Android devices, and PC connectivity
- Great for low vision/VI users Text, layout, buttons, and icons can be larger in more apps

# Choosing an Android phone



### **Choose an Android phone**

I recommend Pixel or Samsung

- Pixel 8 has up to 7 years of OS updates
- Samsung S24 has up to 7 years of OS updates Pixel and Samsung A series are alright, though I would wait for the newest ones coming this year to have 7 years of updates

I recommend NOT getting

- OnePlus or Xiaomi Accessibility is "hidden"
- Budget phones = TalkBack will be SLOW





## **Android Accessibility Resources**

Carrie on Accessibility - I go over a lot of Accessibility, tech, and more!, and more!

Android Accessibility Playlist

Blind Android Users Podcast - Great podcast and large community ready to answer questions!

• TalkBack highlights playlist

Live Accessible - My old channel, some TalkBack videos though a bit outdated. (Working on new videos!)

• Talkback 101 Playlist

The Blind Life - Sam has some videos on Android, too!

• TalkBack 101 Playlist

### **Resources** sibility, tech, and more!, and



# Any questions?



# THANK YOU!

Email: email@carrieonaccessibility.com You can follow **Carrie on Accessibility:** 

