# APPLE VS. ANDROID:

# The Basics Explained!

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## Introduction

 Apple Verses Android? That is the question as a rehabilitation specialist I hear all of the time. Which one is better for accessibility? Is Android better? Is Apple better? These are not questions I can easily answer.

 The purpose of this presentation is not for me to persuade you one way or the other, but to give you some basic knowledge that will aid you in deciding the all too familiar question of is it Apple or Android that is better for your needs. Let’s dive in and find out the basics.

## History

 The all-important question can be rephrased here: which came first, Apple or Android? To find the answer to this question, let’s look at some historical facts about the smart phone movement:

* 1970s - Cellular phones came on the market, but they were very basic.
* 1983 – Motorola released the first mobile device (DynaTAC 8000X), known as the brick, which weighed over a pound, and cost over $4,000, and only had a 30 minute battery life.
* 1992 – IBM revealed the first smart phone (Simon Personal Communicator (SPC).
* 1994 – The Simon Personal Communicator hit the market.
* 2001 – The first phone with basic Internet capabilities came out, but data use was extremely expensive.
* 2007 – Apple released the first iPhone.
* 2008 – Android released the HTC Dream Phone.
* 2008 – Android released the T-Mobile G1 phone.
* 2010 – Samsung released their Galaxy S smart phone.

## Apple

Apple became a household name in the 1980s with the first Mac computer. The iPhone came out in the 2000s, and is now one of the highest selling cellular phone products in the world.

The first iPhone came on the market in 2007, and had an 8 hour battery life, and could be purchased in either a 4 GB or an 8 GB version. It was also the first cellular phone to allow free Internet access, like one would use on their computer at home or at work. Steve Jobs and the team at MacWorld were excited to give the world access at their fingertips. This first phone has evolved to the point that up until now (spring 2024) there have been 21 versions of the iPhone that have hit the market.

 iOS is Apple’s operating system for their mobile devices. At the time this presentation was prepared, iOS 17 is the current version of the operating system. This is known as a closed source, meaning that Apple controls what happens in its system. Some people may say this is a narrow-minded approach, but it has allowed Apple to maintain its credibility in the accessibility department as well as its security and settings. No third party can adapt an Apple device to turn it into something else. Apple realized the importance of having operating systems for different types of devices, so it is easier to keep them separated. iPadOS, Apple OS, and TVOS are a few examples of the other operating systems they have created.

 The iPhone has so many built in settings for those with disabilities. For the purposes of this presentation, we are going to take a look at it from a blind or visually impaired stand point.

 Voice Over is the built in screen reading software that is incorporated into the iPhone. It is also present on iPads, Apple Watches, Apple TVs, and any other Apple product. The uniformity of this is what makes it so universally designed for all users. I, as an Apple user myself, could walk up to any iPhone or iPad, turn Voice Over on, and perform the same tasks, no matter the make and model.

 Basic navigation consists of a wide array of gestures with one, two, three, and sometimes even four fingers involved. We are going to focus on some of the basics here, since we don’t have time to dive too deep on the inner workings.

1. Navigating: Navigation on the iPhone with Voice Over consist of swiping your finger left and right with a simple flicking gesture. To advance forward, swipe to the right. To advance backward, swipe left.
2. Activating an item: To activate an item (like opening an app), double tap on that item, once you have reached it, and it will open.
3. Going back: To go back a page, with apple, the back button is in the top left-hand corner. Locate it, and double tap there. You can also use a two-finger scribing gesture, which will go back in most cases.
4. Closing an app: Closing an app involves the app switcher. If you have an iPhone with a home button, double click the button. That will open the app switcher. If you do not have a home

Button, align your finger with the bottom middle edge of the phone, and slide your finger up until you hear three tapping sounds. Once in the app switcher, swipe up with three fingers, and it will close the app. keep going until it puts you back on your home page.

1. Voice assistant: Apple’s voice assistant is known as Siri. She is separate from Voice Over. You can speak commands to her, such as turning Voice Over on or off, or reading a text message. You must activate her initially from the settings menu.
2. Unlocking phone: To unlock your phone, there are two different ways. With a home button, click the home button. Without a home button, align your finger at the middle on the bottom edge of your screen and swipe up until you hear two tapping sounds.
3. Silence speech: To silence Voice Over, just touch the screen once with two fingers.

## Android

 Android is owned now by Google, but originally started out as a company known as Danger, Inc. They released their first smart phone in 2002 known as the Danger HipTop phone. Google bought out Danger, Inc. in 2005, and that is when they switched over to being known as Android. Over all, Android phones are the most common smart phone, but it is versatile in the fact that it can be adapted.

The Android operating system differs from Apple in the instance that it is an open platform. This means that third party companies can adapt an Android operating system to fit their devices. Amazon, for example, uses an Android operating system on their Kindle devices. Most Braille displays and note takers are built from an Android operating system. This allows Android to be more versatile than Apple in this regard.

 Being an open source, this also can present some challenges when it comes to Android accessibility. TalkBack is the name of the screen reader that Google has created that comes with Android devices. Sometimes there is another screen reader called Voice View. Every device is different, therefore, it can present challenges for trainers and for people choosing which device they want for personal use, because the uniformity that Apple has does not exist here. Samsung, LG, Windows, and Google are all different. Android Accessibility Suite is not built in, and has to be downloaded, depending on the device. Android was a little slower in separating its operating systems for phones verses tablets, but eventually followed Apple in this several years after they did initially. This made it easier to adapt devices with the operating system.

 When it comes to operating the phones or tablets with Talkback, a lot of the gestures are identical to Apple. Here is the same run down from above, but from an Android perspective. Android also differentiates between multi-finger gestures and single finger gestures. This also makes it more device specific than Apple’s universal design approach.

1. Navigating: Navigation in Android varies. In some situations, you will use the swipe left to move forward and the swipe left to go backwards. These are single finger gestures. When navigating menus or lists, you will sometimes swipe up or down with one finger to keep moving through the list.
2. Activating an item: This similar to the iPhone, in that you find the item or app you want and double tap with one finger to activate it.
3. Going back: The back button is located usually along the bottom edge of the phone screen. You may have to swipe back and forth a little to find it, but when you do, double tap, and it will go back.
4. Closing an app: This will vary based upon your device as well as your version of talk back and operating system. On a Samsung phone, you will swipe up with two fingers from the bottom of the screen, and hold. A menu will appear where then you can swipe up with three fingers to close the apps. You’ll have to research your device to ensure how to do this task.
5. Voice assistant: “Hey Google” is the voice assistant that Google has added to Android devices. It operates very similarly to Apple’s Siri. You can give it voice commands such as turning talkback on or off, telling time, or making a call.
6. Unlocking phone: Depending on what device and operating system you have, will determine how you do this. On a Samsung, for example, swipe up from the bottom of the screen with two fingers to unlock your phone. You can lock it from the power button on the side. Again, you will need to research your particular device to find out how to do this task.
7. Silencing Speech: This gesture is identical to Voice Over with multi-finger gestures. Just touch the screen once with two fingers, and that will silence the speech.

Now, keep in mind that sometimes a third party device may have different gestures. As Android evolved, the gestures became more like the Apple gestures, but they are still different. The Kindle still uses drawing gestures to do certain tasks. This is because Kindle still used the single finger gestures. It is important to learn what the Talk Back functions are on the device that a person is interested in buying. Make sure you do your homework.

## Accessibility Apps

 Both of these platforms have a wide array of third party apps. Here are names and brief over views of some apps that are available on both Apple and Android for accessibility and communications.

Seeing AI: This is an app that was created by Microsoft, and is used on both Apple and Android. It allows a user to perform tasks such as read mail, scan a barcode on a product, and scan pictures.

Be My Eyes: This is a free app that is on both Apple and Android. This connects a blind or low vision user with a sighted volunteer to aid in multiple types of situations. It could be reading instructions on a package, identifying colors on an outfit, or helping find something that you have dropped. Be My AI is a new feature that has been released recently where artificial intelligence is used to describe and read anything found in a photograph. This is a nice feature to use when needing to find a specific photo on your phone, or describe your surroundings.

AIRA: This is a payed subscription app. It is also found on both Apple and Android. It is very similar to the Be My Eyes app, but connects you to sighted payed agents who can help with a wider range of tasks. The cost for this app varies based upon your preference of how many minutes you wish to buy.

Envision AI: This is an app similar to Seeing AI. It is found on both Apple and Android. It also has a pair of smart glasses that pairs with it. You do not need the glasses to use it. It can use your phone camera instead. It has a lot of the same functions as Seeing AI. It does have a slight cost for this app.

## Video Communication Apps

Zoom: The Zoom apps are found on both Apple and Android. The interface may look a bit different for it depending on which version you are using. This can be used professionally and personally to connect to people with a video connection for meetings.

FaceTime: This is an Apple specific app. It allows you to connect via video to another person. This can be used professionally and personally as well. An Android user can receive an invitation link to join a FaceTime call, but cannot initiate it.

Webex: This is available on both Apple and Android, and is another video conference app. It also may appear differently depending on what version you are using.

Teams: This is another video conference app that is available on Apple and Android. It also may appear differently depending on what version you are using.

There are so many different apps out there. Make sure to explore the Apple App Store and the Google Play Store to find what types of apps are available to you. Be sure to look into resources as well. Podcasts are a great way to get information on the newest apps, updates, and information. AppleVis and the Blind Android Users are a couple of examples of podcasts. YouTube is another resource to find out more information on apps and more. Make sure you do your homework, and look into your options before you make a decision on Apple Verses Android!

## Presenter Information

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