

# Accessing Smart Devices With a Vision Impairment



**VISABILITY**

Formerly the Association for the Blind WA

[www.visability.com.au](http://www.visability.com.au)

## **Objectives of workshop:**

- Go through accessibility features for Apple and Android Operating systems
- Useful apps for students
- Useful accessories for students

# What is a Smart device

- A **smart device** is an electronic device, generally connected to other devices or networks via different protocols such as Bluetooth, NFC, WiFi, 3G, etc., that can operate to some extent interactively and autonomously. (Wikipedia, 2014)

# Smart devices



Smart phones



Smart Tablets



Smart boards



Smart watches



Smart glasses



Smart appliances

# Jargon demystified

- Apple
- Android
- Windows
- Google
- Apps
- OS
- iOS 7
- KitKat, JellyBean, Lollipop
- AppStore
- PlayStore
- Talkback
- VoiceOver



# Basic gestures

- Tap
- 2 finger double tap
- Drag
- Flick
- Swipe
- Double tap, triple tap
- Drag and lift
- Down and left
- Up and right



# Apple Accessibility

**VISABILITY**

Formerly the Association for the Blind WA

[www.visability.com.au](http://www.visability.com.au)

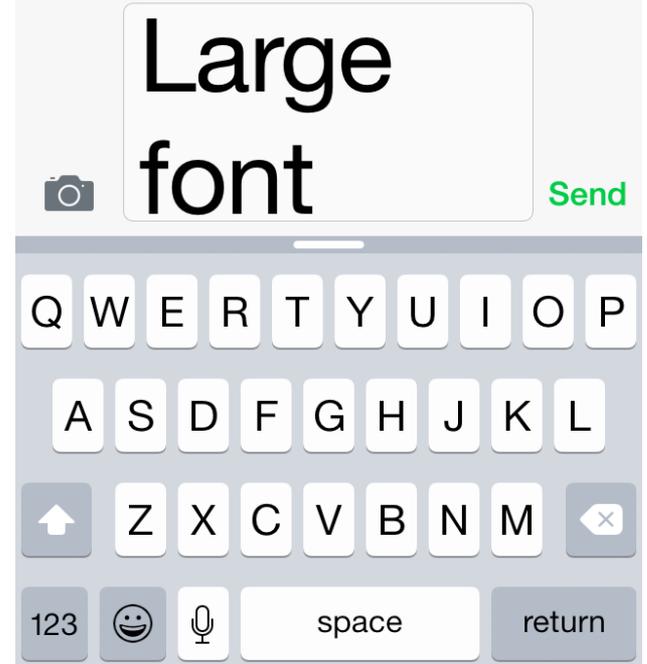
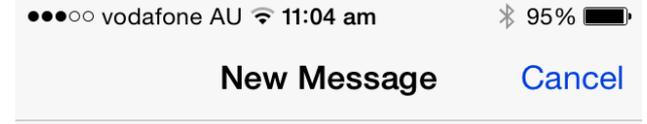
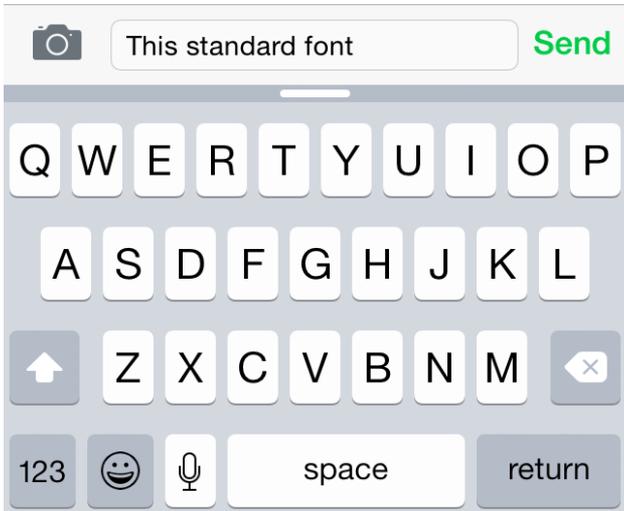
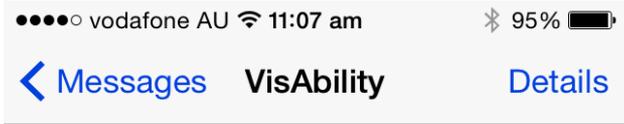


# Apple Accessibility

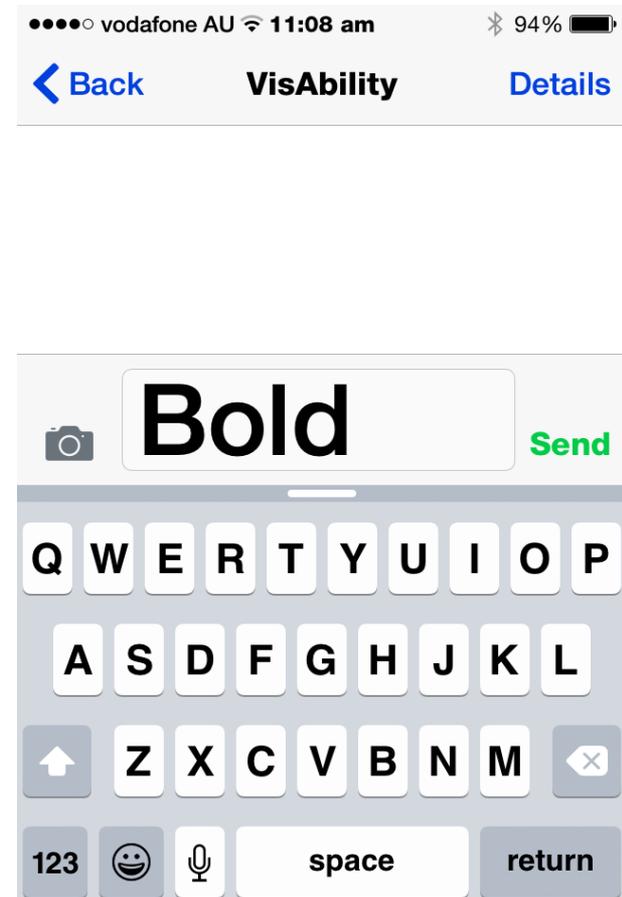
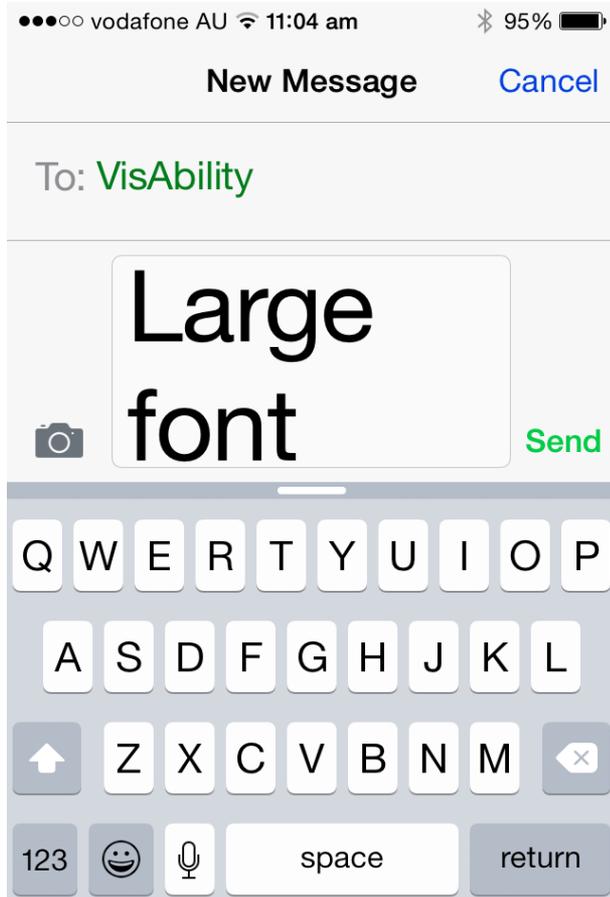
- Text options (Large text, bold text)
- Button shapes
- Invert colours
- Zoom (pinch zoom, Zoom)
- VoiceOver

# Font Sizes

## Standard Vs Large



# Bold text

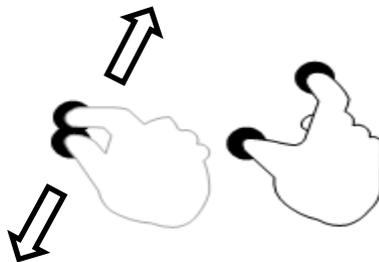




# Pinch zoom



- Place 2 fingers together in the middle of the photo and then spread them away from each other
- Place 2 fingers apart in the middle of the screen and move them towards each other





# Zoom



- 3 fingers double tap to toggle zoom on and off.
- Use 3 fingers to move around the screen when zoom is on.





# Speak Screen

- IOS8 operating system has a function that enables vision impaired users to listen to what is on the screen, without using VoiceOver.
- Activate function in settings under accessibility
- swipe down with 2 fingers from the top of the screen to hear the content that is displayed on the screen.



# VoiceOver basic

To activate go to: Settings > General > Accessibility > Voiceover





# Voiceover - advanced navigation features

**The rotor** is a gesture that allows you to choose navigation, input and output options whilst VoiceOver is activated.





# Android Accessibility



# Android Accessibility

- Font sizes
- Bold text
- Invert colours
- Magnification
- Talkback



# Talkback Basics

How to activate TalkBack (can vary slightly) –  
Settings → Accessibility → Talkback

Some things to consider –

- Phones running on OS 3.0 and earlier may require talkback to be downloaded (IDEAL accessibility)
- OS 4.2 and above has magnifier and talkback
- Older android phones can not be updated



# Basic gestures

- Magnification
  - Triple tap to activate (a blue border will come up)
  - Pinch to zoom further
  - 2 fingers to navigate around screen
- Talkback (explore by touch recommended)
  - Tap – listen
  - Double tap – select
  - Swipe – to go to next element
  - 2 finger swipe to navigate/scroll

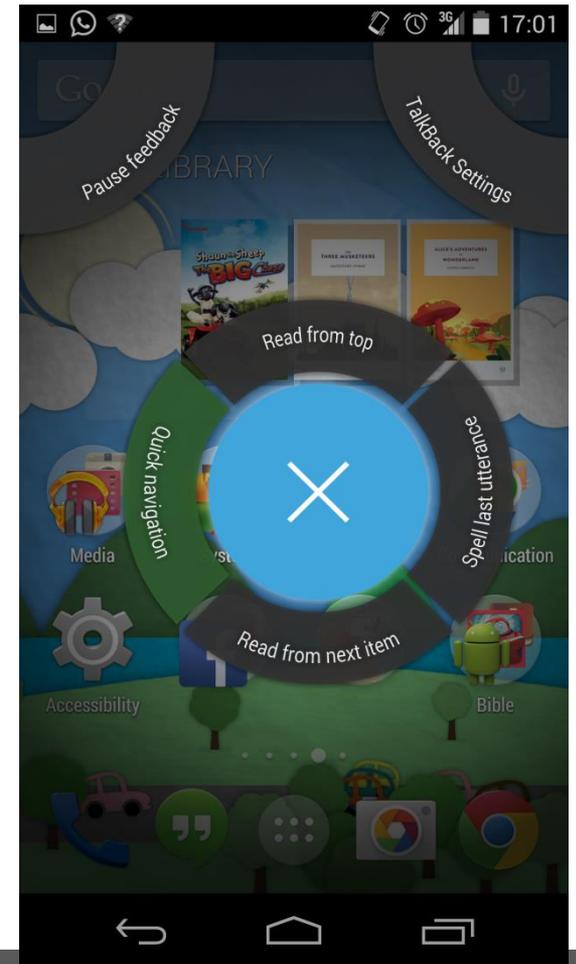
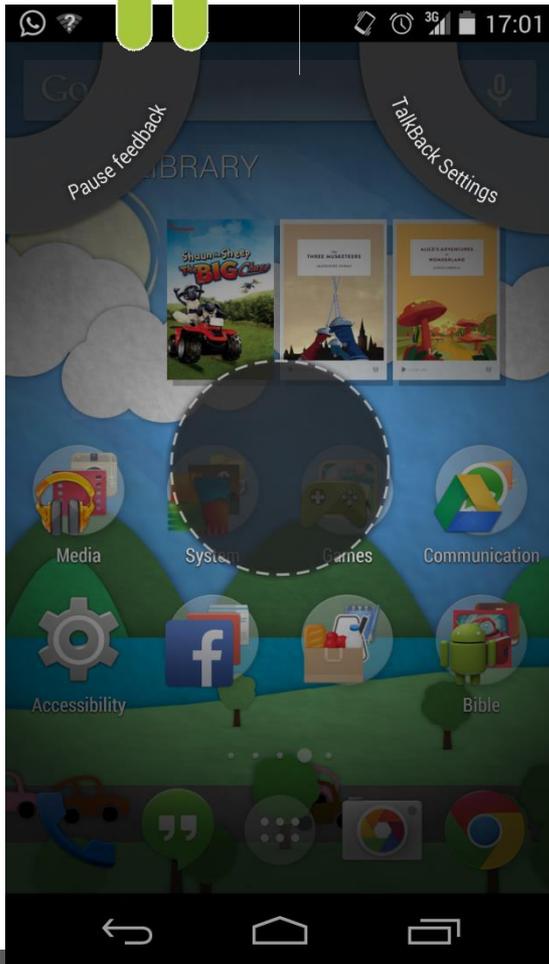


# Additional gestures

- Gestures can be customised
- Down and left – back
- Up and left – home
  
- ‘quick navigation rotor’ (available on 4.3 and newer)
- Up and right – granularity rotor
- Down and right – pause feedback (top left), talkback settings (top right)



# Quick navigation bar





# Siri/Google Now



- Make phone calls
- Send and read text messages and emails
- Create appointment in calendar or set reminders
- Do mathematical calculations
- Set alarm or timer
- Open up an app
- Search the web
- Turn accessibility features on/off \*
- Use maps to locate nearby places or navigate to a destination \*





# Dictate

Ensure Siri is turned on for this feature to work

- Dictate works whenever a keypad comes up on screen and when the device is connected to internet.
- Enables you to speak into the device which is then converted into text
- Useful in Messages, notes, safari.





# Shortcuts, Apps, Tips and Tricks



# Accessibility short cuts



## Answering calls

Double tap with 2 fingers to answer and end incoming calls



## Turning On /Off Voice Over

Triple click home button or if you have IOS 7 ask Siri to turn it on/off for you.



# Accessibility Shortcuts



## Answering calls

Select function in settings for power button to answer and terminate calls



## Talk Back

You can add an accessibility shortcut from the home screen.



# Accessibility short cuts



What does shaking the device do ?

Undo function  
removes the last  
typing/ dictation



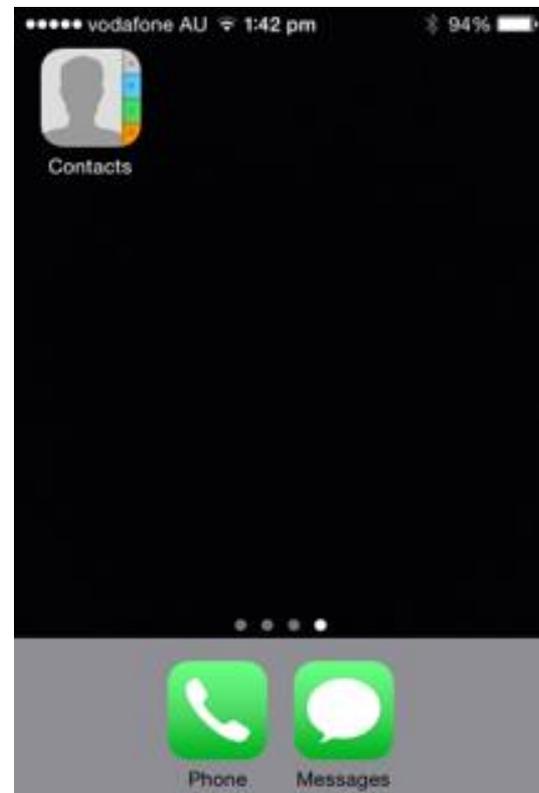
Reads the whole  
screen when in  
talkback in some  
phones



# Simplified phone options



- Hide unwanted apps
- Simplify background
- Lock rotation
- Altering lock times
- Password controls (iPhone 5s fingerprint scanner)
- Widgets





# Specialised Apple Apps



Color ID Free



CamFind



Prizmo



KNFB reader



VoiceDream reader



VO Calendar



MagLight



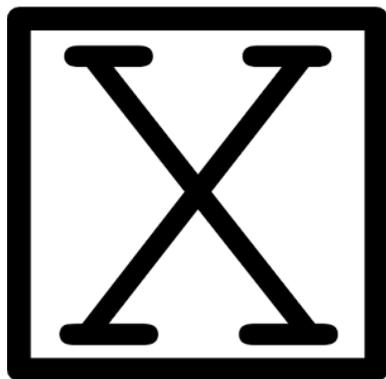
VO Tutorial



# Specialised Android apps



BIG Launcher



PointFinder



Big SMS



Nova Launcher



Stop Announcer



Zoom PLUS

# Non-specialised Apps



Food Switch



Woolworths



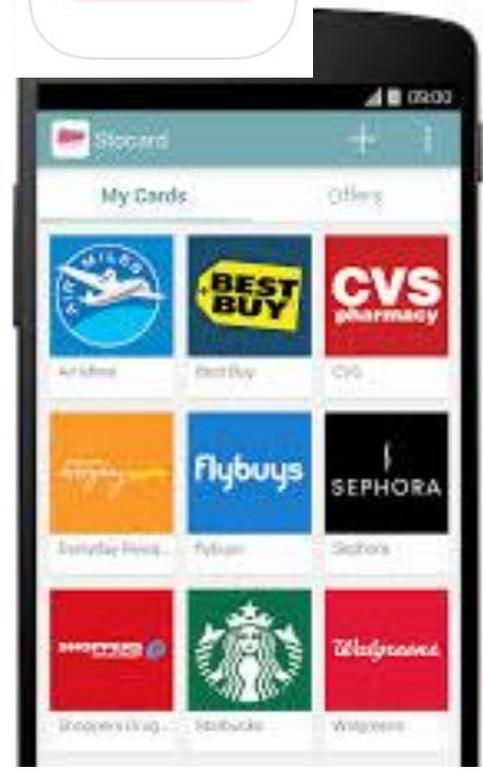
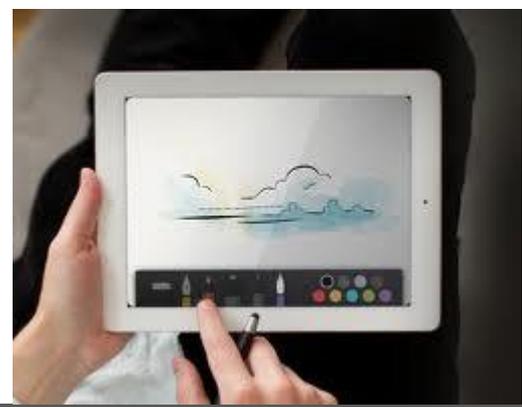
# Non-specialised Apps continued



Paper



STO card



# Non-specialised Apps continued



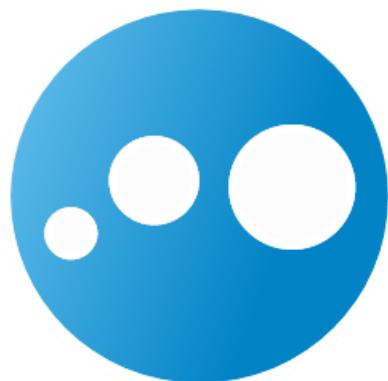
Camera



iBooks



AudioNote



Log me in



Audible



Tune In Radio

# Accessories





# Thank you & Any Questions?



Yuemei Lim

[yuemei.lim@visability.com.au](mailto:yuemei.lim@visability.com.au)

1800 VISION (1800 847 466)