

# u3a Computing Group

Alan Hopwood, 1 February 2024

# Agenda



Welcome

Current News, Issues and Questions

Future Topics & Next Meeting

Topic: Laptop vs Tablet (and smartphone)

AOB and Follow up

# Current News, Issues and Questions

Anything to discuss?

# Future Topics

| Topic   | Votes |
|---|-------|
| Microchip design                              | 2     |
| Being safe on the internet                    | 2     |
| History of computer development               | 2     |
| Bluetooth                                     | 1     |
| Digital communications / information encoding | 1     |
| Chromebook                                    | 1     |
| Mac vs Windows vs Linux                       | 1     |

**Presentation**

**Laptop vs Tablet / Smartphone**

# What is the Question?

## Laptop vs Tablet / Smartphone

- If you only want to buy a laptop or a tablet, which should you choose? (assumption that everyone needs a phone - but not necessarily a smartphone. Although....)
- If you have both a desktop and a tablet, what would you use each for?

# Agenda

## Laptop vs Tablet/Smartphone

- Check our current use of laptops, tablets & smartphones
- Compare the devices
- Highlight differences & look for differentiators
  - cost
  - Applications
- Is there an answer to the questions?

*Much of the presentation is highlighting the obvious!*

*Content is largely based on knowledge of Windows, MacOs, and IOS. My knowledge of Android is weaker, but almost everything that can be done on an IOS device can also be done on an Android device albeit differently (and perhaps with less elegance)*

# Our Current use

## Laptop vs Tablet/Smartphone

*What devices do we have and what do we use them for?*

Of 15 of us in the meeting,  
12 of us used both a tablet and a laptop/PC  
All of us had smartphones



# Characteristics to Consider

## Laptop vs Tablet/Smartphone

- Core
  - Processing power
  - Memory
  - Weight & size
  - Battery life
- File Storage
  - Local/Remote
- Connectivity & Sockets
  - Wifi, USB (A, C), Bluetooth, HDMI, audio, SD card, Ethernet
- Peripherals
- Operating System
- Security
- Human Computer Interface
  - Input
    - Keyboard
    - Mouse & variants
    - Touchpad
    - Touchscreen (pencil)
    - Camera
    - Microphone
  - Output
    - Screen (multiple)
    - Speakers
- Applications
- Cost £££££

# Each device “can” do Everything!

## Laptop vs Tablet/Smartphone

- Laptops can have:
  - Touchscreens
  - Fold away keyboards
  - Built in or add on cameras
- Tablets can have:
  - Attachable keyboards
  - Bluetooth mice
  - Adapters for HDMI or other interfaces
  - Connections to local and remote storage
- Smartphones are tablets with smaller screens (or is it the other way round?)

*So what is the difference and how do you choose?*

# Where are the differences?

## Laptop vs Tablet/Smartphone

- Each of the devices has a core functionality
- Applications developers rely on core functionality & use other resources only where necessary.
- Operating System is optimised for “normal” use
- A **laptop** is a variant of a desktop & applications assume:
  - Biggish screen, keyboard, mouse (touchpad emulates a mouse) + lots of sockets
- A **tablet**: medium sized high definition touch sensitive screen, virtual keyboard, camera, speakers.
- A **smartphone**: small medium/high definition touch sensitive screen, virtual keyboard

# Laptop Characteristics

## Laptop

- Same applications as Desktop
- Will often be on a desk
- Perched on lap
- Multitasking with several windows open is easy/normal
- Uses:
  - for business - business standard is Microsoft Windows
  - computing intensive - serious gaming.
  - Needing keyboard input
  - Uses requiring a peripheral - ie used to drive a 3d printer.
- Applications have more features, tend to more complexity and more expensive.

# Tablet Characteristics

## Tablet

- Original objective was to be “not a PC”, but rather an ultra mobile electronic pad.
- used as handheld or on a table
- High definition screen
- Operated with hand gestures.
- Multitasking provided, but awkward & screen limited.
- Uses
  - leisure
  - watching, reading
  - light games
  - mobile - travel related, navigation
- Applications tend to have fewer features, simpler and less expensive

# Tablet Gestures

## Tablet

### Tap

Briefly touch surface with fingertip.



CORE GESTURES

### Double Tap

Rapidly touch surface twice with fingertip.



CORE GESTURES

### Drag

Move fingertip over surface without losing contact.



CORE GESTURES

### Flick

Quickly brush surface with fingertip.



CORE GESTURES

### Pinch

Touch surface with two fingers and bring them closer together.



CORE GESTURES

### Spread

Touch surface with two fingers and move them apart.



CORE GESTURES

### Press

Touch surface for extended period of time.



CORE GESTURES

### Press+Tap

Press surface with one finger and briefly touch surface with second finger.



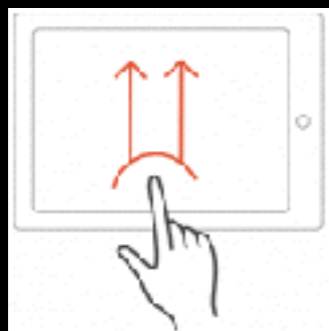
CORE GESTURES

# iPad Gestures

## Tablet



Swipe up (a little) for the dock (tray of favourite apps)



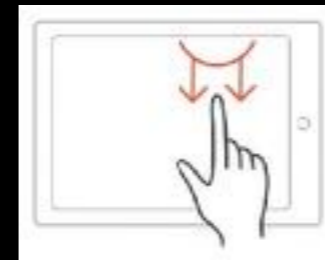
Swipe up (a lot) to close the current app



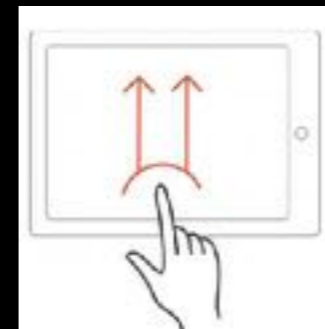
Swipe down from the top right corner for Control Center (settings)



Swipe down from the top for notifications (received alerts)

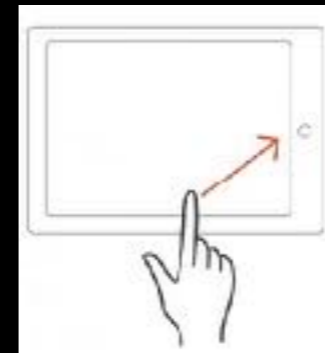


Swipe down from the middle of the home screen for search



Swipe up *and hold* to see the app switcher

*Note assumption of using one app at a time*



Drag an app from the dock to get split-screen (*changed*)



Swipe right on the home screen to view widgets (mini apps)

# Smartphone Characteristics

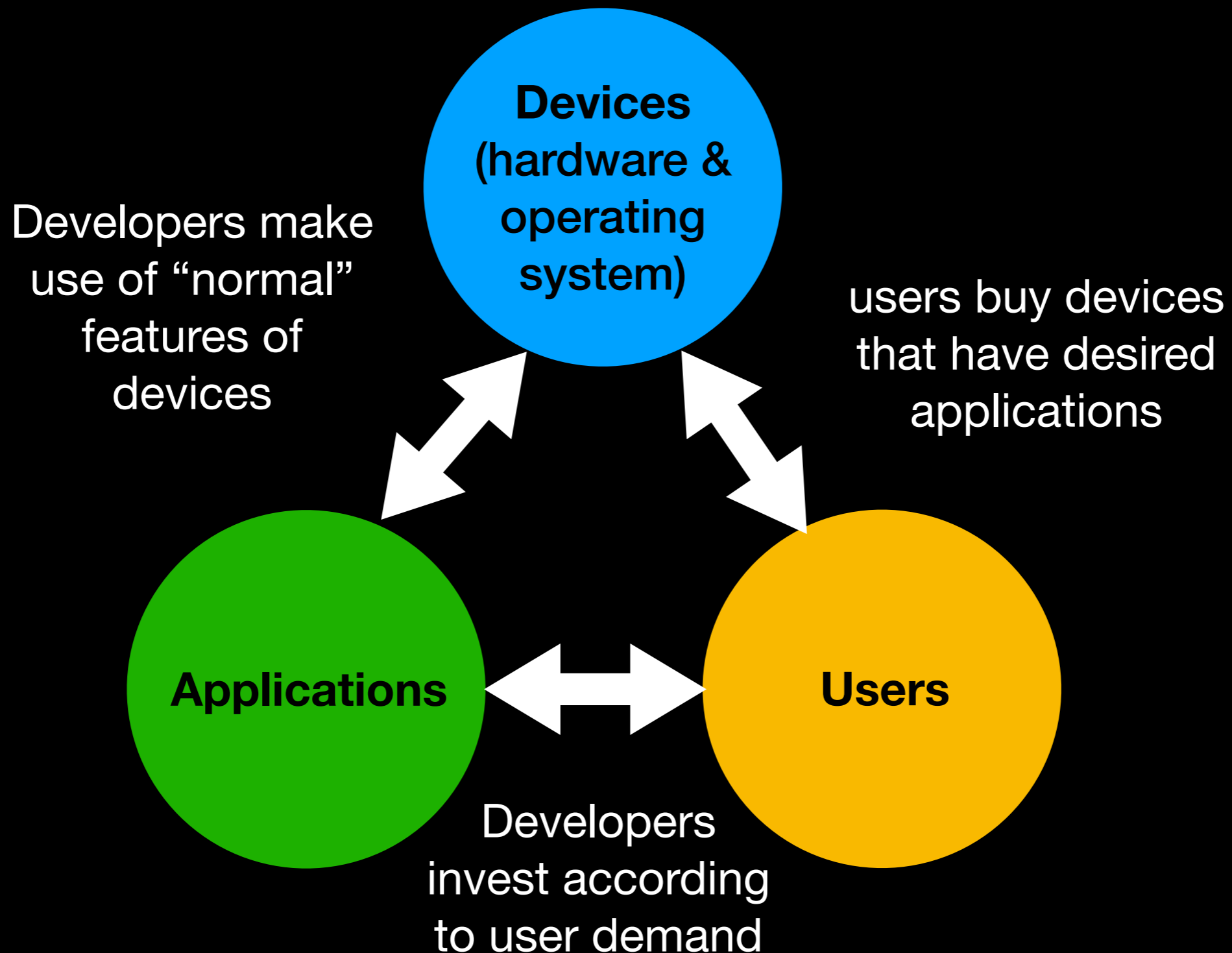
## Smartphone

- Handheld - in a pocket
- Always with you
- Always connected to telephone network & usually Internet
- Multiple sensors: barometer, gyro, accelerometer, proximity sensor, compass.
- Typically high quality cameras.
- Uses
  - Communications of all kinds, social media.
  - Requiring greatest availability & security - NHS app, banking.
  - Wallet - payment apps
  - Travel e.g. train tickets, parking apps, maps & directions.
  - Increasingly, proof of identity
  - Controls for “smart home” devices - heating, security, music,
- Applications are as per tablet, but screen size limited. Most Android apps are designed for phone sized screen.



# Interplay

## Laptop vs Tablet/Smartphone



# Internet Use

## Laptop vs Tablet/Smartphone

- Good websites (like ours) are now “responsive” using flexible layouts adapting to different screen sizes.
- Have a fundamental difference between the PC/laptop layout and the smartphone layout.
- iPads (usually) use the PC layout and simulate mouse clicks etc.
  - Better for display
  - Sometimes tricky for data entry.



# Is Cost a differentiator?

Both of these devices cost about the same - £450 to £600 depending on options chosen

## PCPro - Every day Laptop

### Honor MagicBook 16X

- Processing: Geekbench multicore **8510**
- Memory: 8GB RAM
- File Storage: **512GB** SSD
- Screen: **16inch** 1920x1200 pixels
- Battery life: 3.5 hours
- **keyboard**
- touchpad
- Connectivity: WIFI, bluetooth, USB A, C, **HDMI**, **3.5mm audio**, **SD card**
- Camera (poor) & speakers
- No Sensors
- Size: 356 x 250 mm
- Weight: 1,750 grams

## Mid range Tablet

### Apple iPad Air

- Processing: Geekbench multicore 6934
- Memory: 8GB RAM
- File Storage: 256GB SSD
- Screen: 10.9inch **2360x1640 pixels**
- Battery life: **10.5 hours**
- virtual keyboard
- touchscreen
- Connectivity: WIFI, bluetooth, USB C, **SIM card**.
- **Camera (2 amazing)** & speakers
- **Various sensors**
- **Size: 248 x 178 mm**
- **Weight: 461 grams**

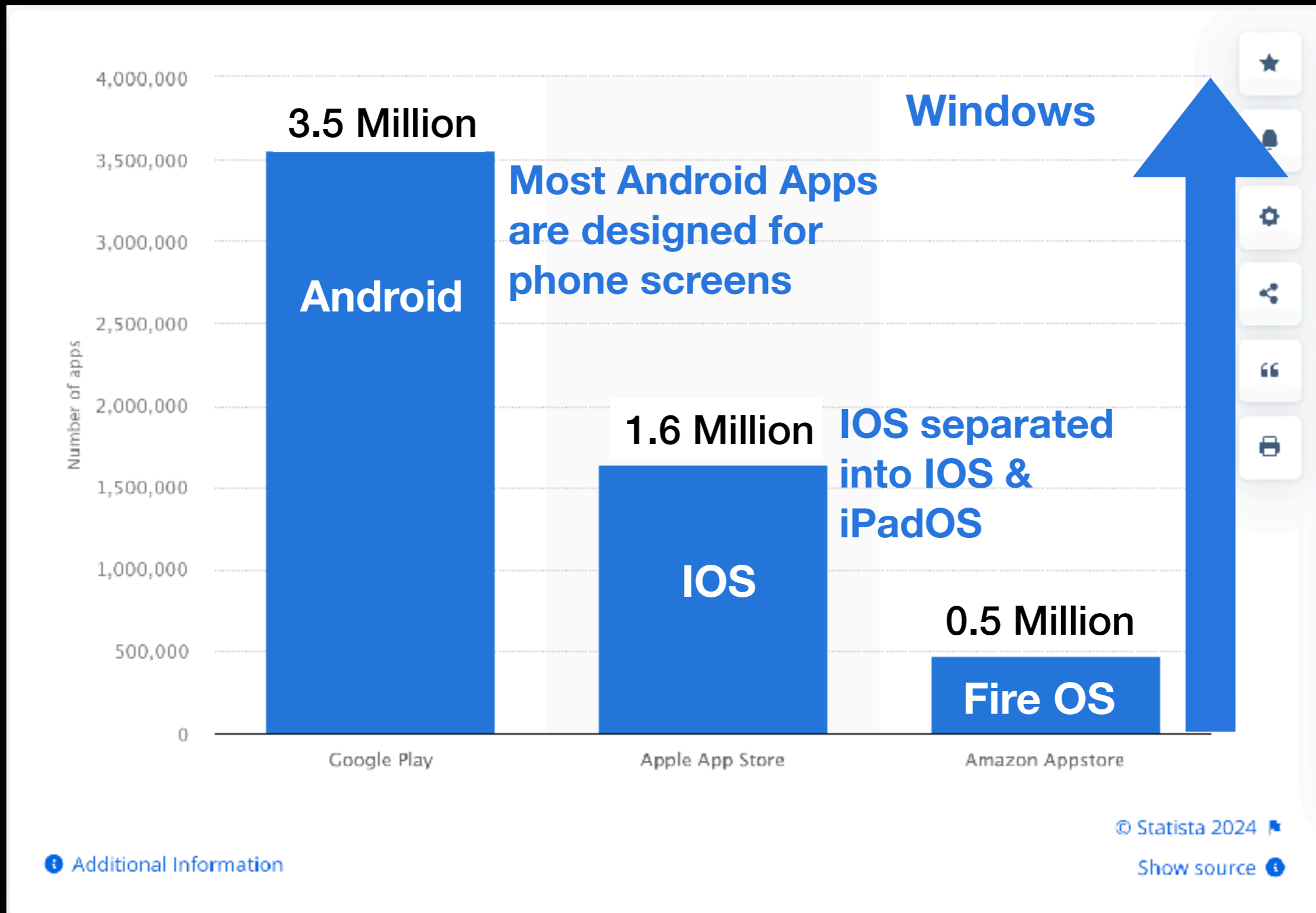
# Costs of Extending

## Laptop vs Tablet/Smartphone

- For iPad
  - Keyboard: £90 - £200
  - Pencil: £120
  - HDMI connector: £10-£20
- Camera for laptop: £50 - £250
- 2 in 1 laptops / Windows tablets:
  - Microsoft Surface Pro 9: £1,000
  - Lenovo ideaPad Flex: £950all have foldaway keyboards

# Is app availability a differentiator?

## Laptop vs Tablet/Smartphone



# My Use Preferences

## Laptop vs Tablet/Smartphone

|               | Laptop  | Tablet  | Smartphone  |
|---------------|---|---|---|
| core use      | <ul style="list-style-type: none"><li>• Creating documents, spreadsheets, presentations</li><li>• Manage websites &amp; IT systems</li><li>• Email,</li><li>• Internet searches</li><li>• Internet shopping</li></ul> | <ul style="list-style-type: none"><li>• Email</li><li>• Video Calls</li><li>• News, weather</li><li>• Magazine reading</li><li>• Reviewing documents</li><li>• Calendar &amp; to-do management</li><li>• Banking</li><li>• Travel planning</li><li>• Controls: Central heating, music, TV, wifi.</li><li>• Watch TV privately</li></ul> | <ul style="list-style-type: none"><li>• phone, messaging</li><li>• Contacts</li><li>• Local payments, loyalty cards e.g. Costa</li><li>• Banking on the move</li><li>• Controls: Central heating, music, TV, lights, wifi. scales</li><li>• Maps, navigation</li><li>• Uber, car parks</li><li>• Notebook</li></ul> |
| Rarely, never | <ul style="list-style-type: none"><li>• Controls: central heating, car remote</li><li>• Reading</li><li>• Watching videos / TV</li></ul>  | <ul style="list-style-type: none"><li>• Creating big spreadsheets, documents.</li><li>• Completing some internet forms.</li></ul>   | <ul style="list-style-type: none"><li>• Spreadsheets, documents</li><li>• Reading magazines</li><li>• watching videos, TV</li></ul>   |

# Summary

## Laptop vs Tablet/Smartphone

- If main use is at desk/table doing home “office” work then have laptop
- If main use is in lounge reading, watching, listening, then have a tablet
- Laptops and tablets extend into each other’s area
- *Personal preference rules*
- Smartphone can extend onto tablet area. Many apps in common

### Laptops

- Productivity
- Local connectivity
- Programmes typically have more features

### Tablets

- Media consumption
- smaller and lighter
- Longer battery life

### (Smart)Phones

- In the pocket
- Always connected
- Essential for modern living

**Thank You**



# What do we do now?

|                           | Who has |            | Uses for |
|---------------------------|---------|------------|----------|
| Laptop/PC & Tablet        |         | Laptop     |          |
|                           |         | Tablet     |          |
| Tablet & Smartphone       |         | Tablet     |          |
|                           |         | Smartphone |          |
| Laptop/Desktop not tablet |         |            |          |
| Tablet, not PC            |         |            |          |

*Handwritten red text: "Draw on Pad!" with an arrow pointing to the Tablet row.*