#### Android vs iOS Throwdown





#### What is Android?

Android is a free, open source mobile operating system based on Linux

It is ready-made, lightweight & customizable

Android can run on any mobile device: mobile phones, phablets, tablets & others!

Android was unveiled in November 2007

Android is developed/maintained by Google



#### Who Is Android?

**Open Handset Alliance** = consortium of 84 companies whose govern Android's development of open standards for mobile devices

Technology Companies: Google, eBay, PacketVideo...

Device Manufacturers: Samsung, HTC, LG, Moto, Sony...

Wireless Carriers: Sprint, T-Mobile, NTT DoCoMo...

Wireless Chip Manufacturers: Qualcomm, Intel, Tl...



#### Standard Disclaimer

## There is no *black-and-white*better mobile operating system, Android or iOS

Each platform has its strengths and different people prefer different features/designs



# What Users Prefer Android over iOS?

### Android is more attractive to power users who need to do more



### Android Prioritizes **Can Do** over **Hairdo**

#### **Droid Commercial**

https://www.youtube.com/watch?v=w83UQkiuNZQ



#### Android Does More

### Android is about being more powerful and DOING MORE.

Android is not hyper-focused on a super shiny, polished user experience



#### **Faster Innovation**

All the major tech companies in the Open Handset Alliance are not only backing the Android, they are rapidly pushing it forward, driving broader faster innovation



#### **NFC**

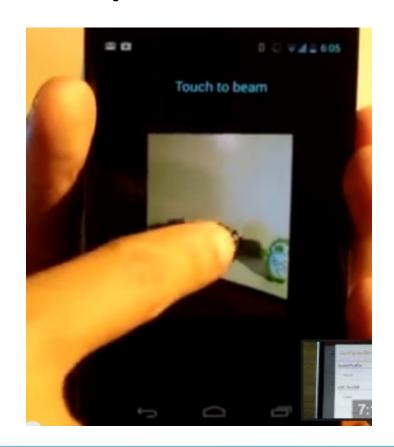
Near Field Communication (NFC) enables short range communication between two devices, or between a device and a passive tag / transmitter without a power source



#### Apply NFC Technology

### Tap Two Devices Together to Share Files/Photos







#### Apply NFC Technology



Google Wallet is an NFC based wireless payment system that allows its users to store debit and credit card information to make payments at PayPass-enabled terminal at checkouts



#### Put It To A Vote

### Android is the **MOST POPULAR** mobile operating system

70% of the mobile phones being sold today run Android



#### **Faster Innovation**

### Android pushes the envelope, innovating earlier...

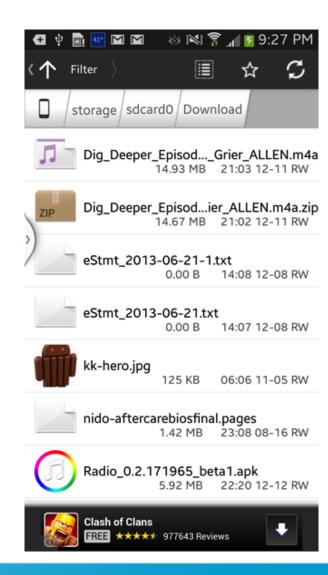
Background apps, voice to text, NFC, Hover Support, and more



#### Visible File System

### Android has a visible file system

Download any file & browse/share/edit/copy/delete it just as you would on a PC





#### **App Sources**

Android allows users to enable their phone to download apps from sources other than the Google Play Store Web, Email, Other App Stores

Google does not impose limits!



#### **App Sources**

Think about how much developers appreciate this:

It is SO MUCH EASIER to prototype a new app and distribute it to friends for feedback!



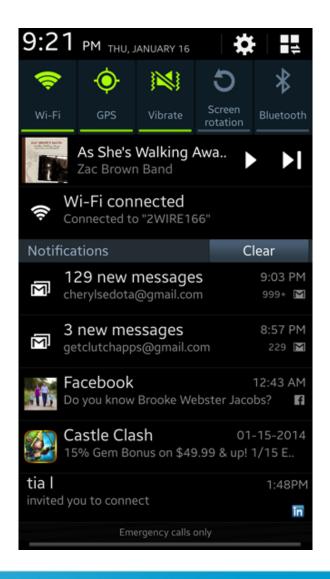
#### Music Downloads

Android allows user to purchase and/or directly download music from any website or app, it does not limit you to using the Google Play Store



#### Rich App Notifications

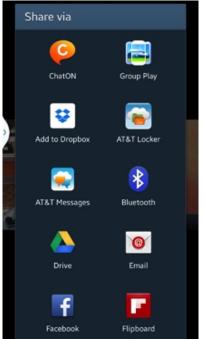
Richer, more customizable and valuable notifications that the user can interact with

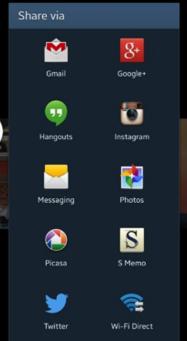




#### **Endless Sharing**

The loosely coupled inter-app communication in Android allows any installed app to be a share target







#### Replace Apps

Android gives the ability to swap out ANY APP on the device, even the platform applications

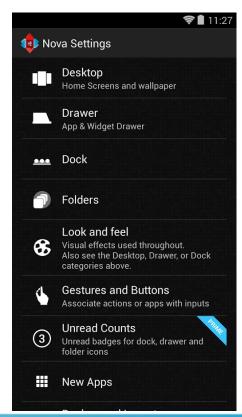
As simple as installing a new app and configuring it as the default to handle specific operations



#### Replace Apps

### Don't like Android's launcher? Swap it out for a 3rd party app!









#### Replace Apps

Don't like the built-in email, SMS, Contacts, Email, etc apps?

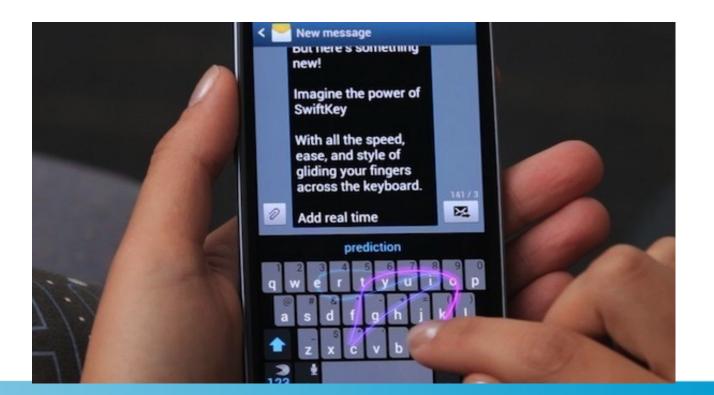
The user can swap them out!:)

Excellent opportunity for 3<sup>rd</sup> parties to plug in innovative approaches to common tasks



#### Replace Keyboard

### Even the keyboard can be swapped out!





#### Powerful Unlock Screen

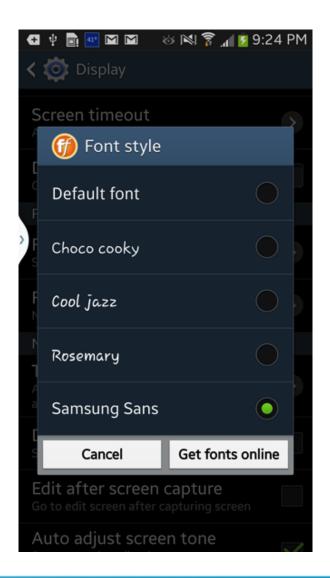
Multiple apps exposed on the unlock screen enable the user to quickly launch an app on the go





#### **Font Customizations**

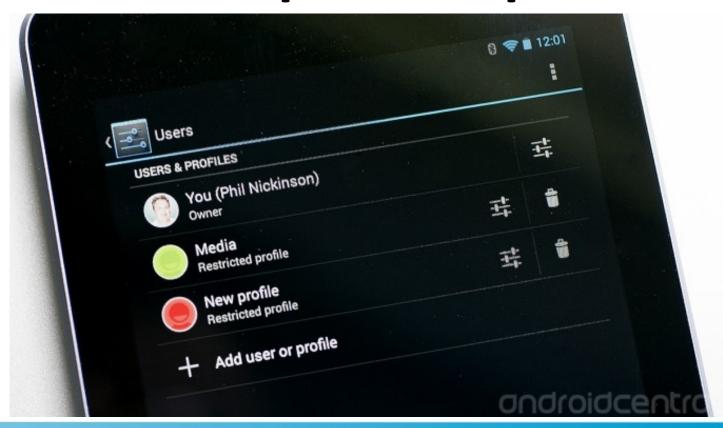
### System font can be customized





#### Multiple User Profiles

### Android tablets support multiple user profiles





"Inexperienced users will see complications whereas the power user sees opportunity"

### Android is more attractive to people who want to better the world



#### Open Source

Android is open source: the source code is available to anyone to use for their own purposes to better the world

The code is even licensed under the permissive Apache license!



#### Focus On Advancing Tech

### Forget proprietary code and walled gardens

Instead, focus on advancing the world's mobile technology capabilities



#### Open Standards

### Android utilizes open standards whenever possible

Simple example – the USB cable used with Android phones is the industry standard micro USB!

# Android is more attractive to users who value free apps



#### More Free Apps

Because Android is **open source**, it will attract like-minded users and developers

Result: more free apps

Users focus on DOING MORE FOR LESS MONEY in exchange for ads

### Android is more attractive to users who live to customize their digital world



#### More Device Choices

Much more choice with mobile devices: large or small screen, physical or onscreen keyboard, various colors, shapes, etc!

Users are not limited to the form factor of the iPhones and iPads

## Leading Android Phones





#### **Leading Android Tablets**



So many choice 5", 7", 9", 10"





#### 'Other' Android Devices





#### Customizable Home Screens

A grid of apps is not that interesting. Android puts them in an easily accessible drawer and allows

users to customize their **home screens** with a variety of useful shortcuts:



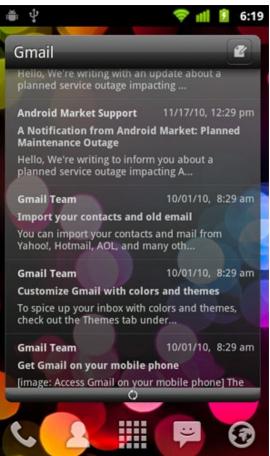




#### Widgets

Unique to Android, your mobile application can offer a widget for the user's home screen:







## Live Wallpapers

Unique to Android, your mobile application can offer an animated live wallpaper:







#### **Custom ROMs**

Because Android is open source, 3<sup>rd</sup> parties can tweak the operating system itself, and distribute it to users directly

Custom ROMs offer features and options not found in the official Android OS releases

For example, native theming support, FLAC audio codec support, a large Access Point Name list, an OpenVPN client, USB Tethering, CPU Overclocking

# Developers Prefer Android Too



The Android platform offers richer, more powerful APIs that enable developers to accomplish more, and more fully integrate their apps into the overall phone experience



#### Richer App Example

Android enables apps to reach further into the device's data

Uber-intelligent apps like Google Now are much more powerful on Android than on iOS



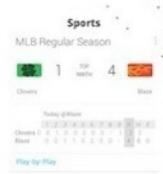
#### Google Now App

#### Flights



#### No digging required.

Cards appear when they're needed most, organizing the things you need to know and freeing you up to focus on what's important to you.

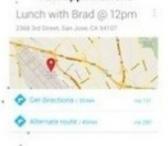




#### Get just the right information, at just the right time.

Just swipe up, and you've got the latest information you want to see, when you want to see it.

#### Next appointment



#### You're in control.

Choose exactly which cards you see. You control whether you get personalized results from your calendars, locations and searches after opting in.



Inter-App communication is well architected, flexible, and allows applications to offer specialized "pieces" of a fully functional application



It is so powerful to be able to invoke a specific screen within another application in a first class loosely coupled way



For example, a developer could implement a file or color picker

It may not be a launchable application in itself but other apps can utilize it in a loosely coupled way



# Android gives developers complete control over their environment

Any Android component can be subclassed and its specific behaviors can be customized



#### Open Languages

## Android Supports XML, Java, C++

These are three STANDARD and OPEN languages

There are MANY MANY skilled XML, Java, C++ developers out there in the world today



#### Modern Prog Language

For the majority of apps, Java is more than sufficient and the huge Android Java class library enables developers to very quickly write an Android app



#### Modern Prog Language

C++ is used in apps that perform complex computations or require memory optimizations

# Enterprise Prefers Android



#### **Enterprise Concerns**

Many companies have an existing investment in Java and C++, and they benefit from being able to port existing C++ and Java logic to Android

# How Does Android Stack Up Against iOS Globally?



#### Put It To A Vote

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## Mobile Ecosystem

Android phones oversell iPhones in every area of the world. Android is the most popular mobile phone platform for consumers AND developers!

	USA	Europe	China
Android	52	70	86
iOS	40	18	8
Windows	3	7	2
Blackberry	4	2.5	2
Other	1	2.5	2

It's so bright,
I've gotta wear shades!





Android is designed to inspire manufacturers to get creative and push the industry forward

There are no hardware restrictions with Android, we will see continued innovation!



Android's Hardware & Software Innovation has trumped Apple's since iPhone 5 was released

Quad-Core CPUs, 1080p Displays, Devices with 3GB of RAM



In my personal opinion, Android became more usable than iOS in 2013

iOS 7 significantly decreased the usability of my iPhone

Android OS and apps just keep getting better and better