

Running Selenium tests on a cloud of real
mobile devices

Mobile, the future!

Flow

- Need for mobile testing
- Emulator / Simulator vs Actual devices
- Tools available
- Android setup demo
- iOS setup demo

60 mins is all we get!

Need for mobile testing

OS



OS



BROWSERS



BROWSERS



VIEWPORTS



LANDSCAPE MONITOR

VIEWPORTS



PORTRAIT/LANDSCAPE



DEVICE SIZE

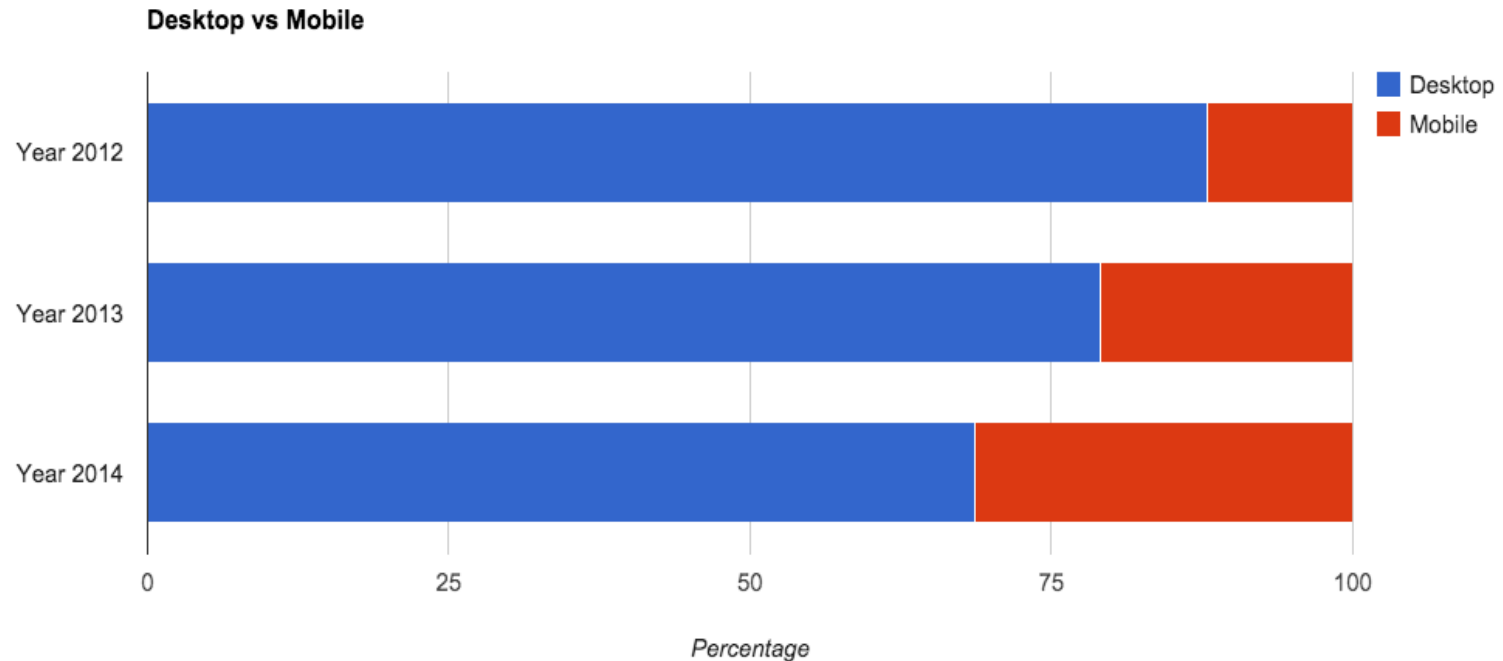
INTERACTION



INTERACTION

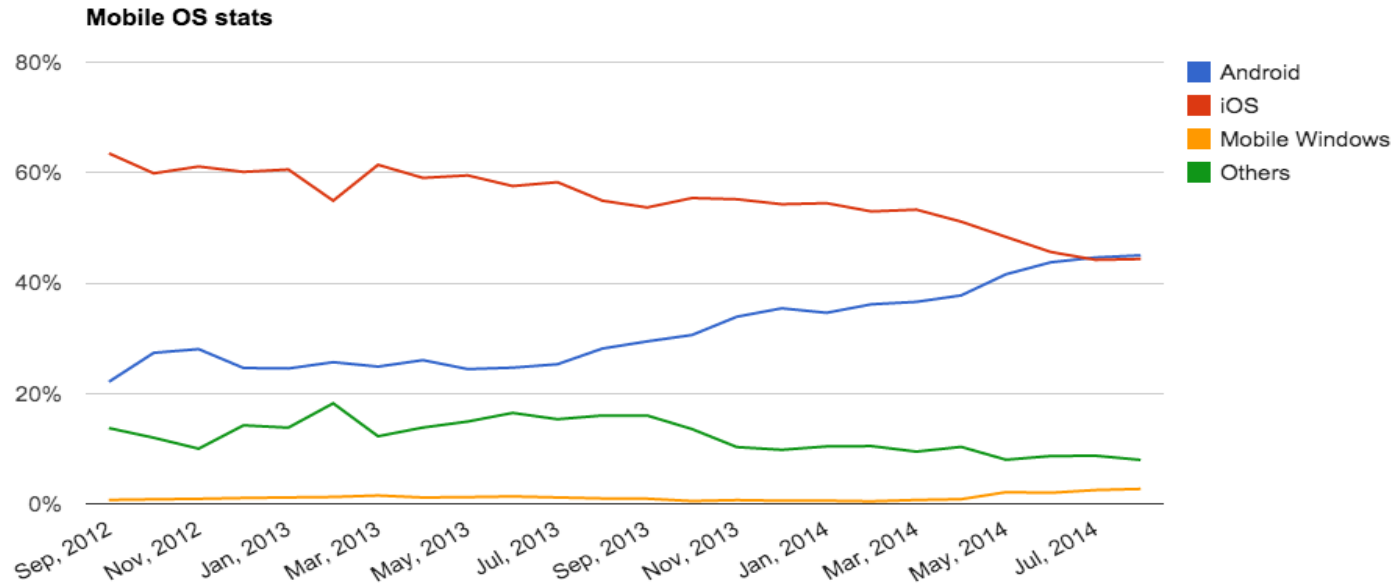


Users on mobile vs desktop



Source: <http://statcounter.com/>

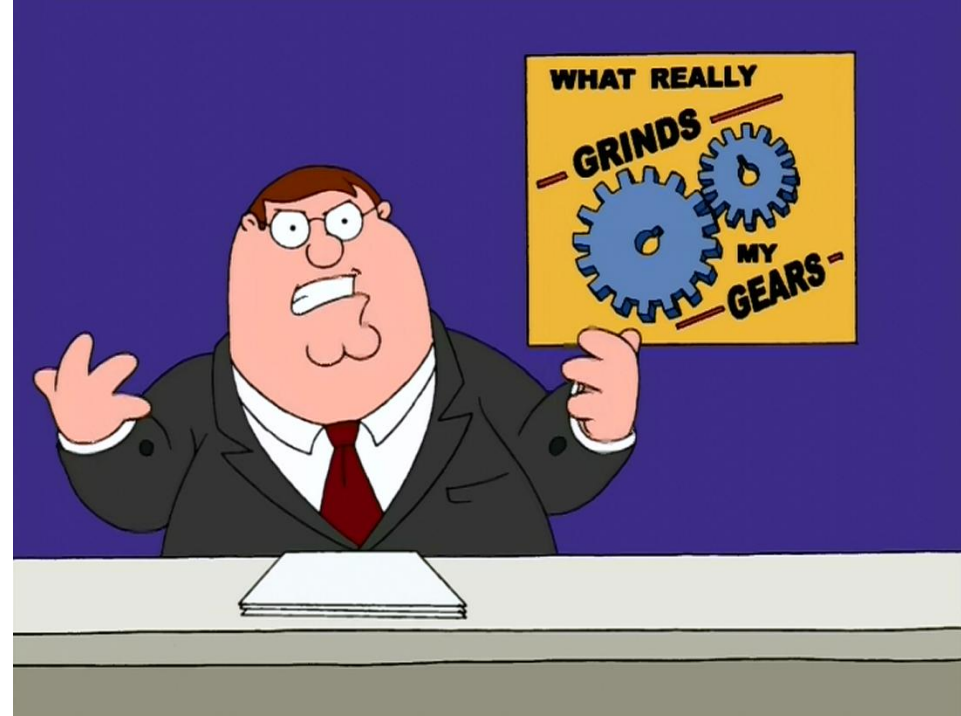
Mobile platform



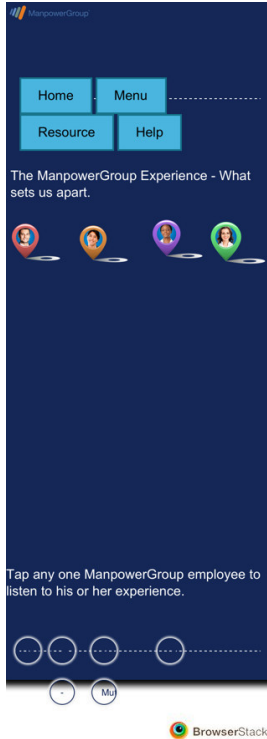
Source: <http://www.netmarketshare.com>

Emulator

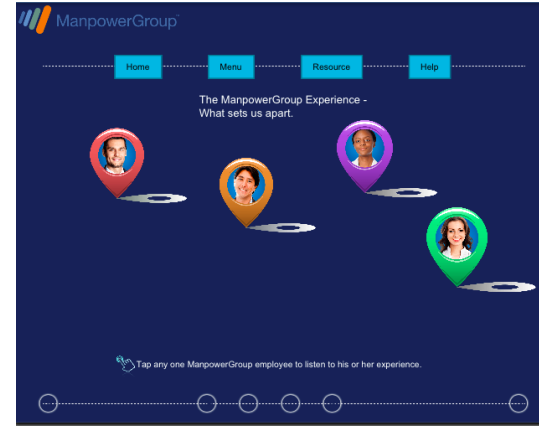
- awesomely fast
- awesomely accurate
- easy to maintain
- are true tests
- stable



Why my gear grinds..



iPhone 5 Simulator



iPhone 5 Device

Tools

- JSON wire - Appium, Selendroid, iOS-driver
- Other test frameworks - Calabash
- Record and play - MonkeyTalk

What we use and why?

- Android - Selendroid and Appium
- iOS - Appium

Advantages:

- JSON wire (Selenium 2)
- Open Source and actively maintained

Getting started - Android

Requirements:

- Android sdk
- Few commands
 - adb devices
 - adb logcat

Before we start

- Enable usb debugging - Google has hid it!
- Developer options settings:
 - Allow from unknown sources
 - “Stay awake”

Selendroid - WebView android

- Instrumentation API
- Native, hybrid and web app testing
- Gestures
- Awesome WebView inspector!

Appium - Chrome android

- Chrome - default for new androids
- Chromedriver - hail Chrome devs!
- Desktop chrome tests, just works
- No rooting - Chrome 33+

Getting started - iOS

Requirements:

- XCode and command line tools
- Developer account with Apple
 - Provision profile
 - Code signing certificate

Before we start

- Turn on web inspector
- Install provision profile

Appium - mobile Safari

- brew info libimobiledevice
 - idevice_id
 - ideviceprovision
- npm install
- ios_webkit_proxy - JS proxy
- Fancy UI vs Awesome terminal

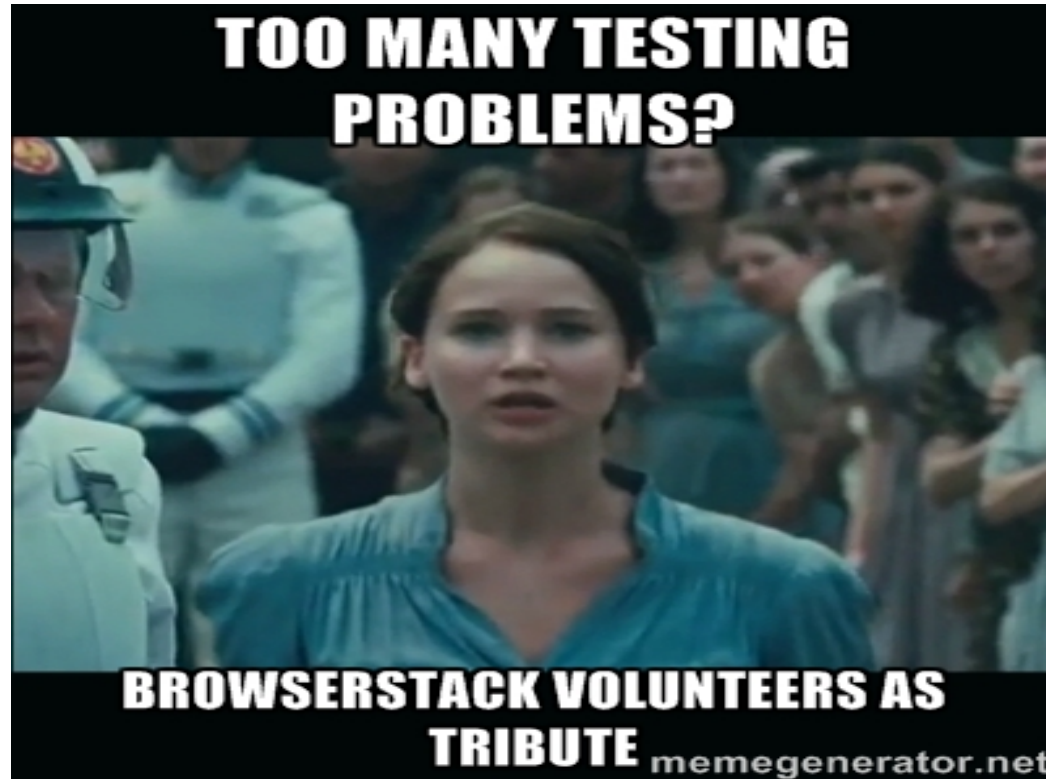
Future of mobile testing

- Windows mobile testing
- More mobile browsers coming up
- Native vs JavaScript

Looks good? Not always..

- Expensive!
- Multiple platforms
- Too many variants
- Cleaning the device
- Capability management

BrowserStack to the rescue!



Now your turn..

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BrowserStack