

# MOBILE OPERATING SYSTEMS AND APP DEVELOPMENT PART 1

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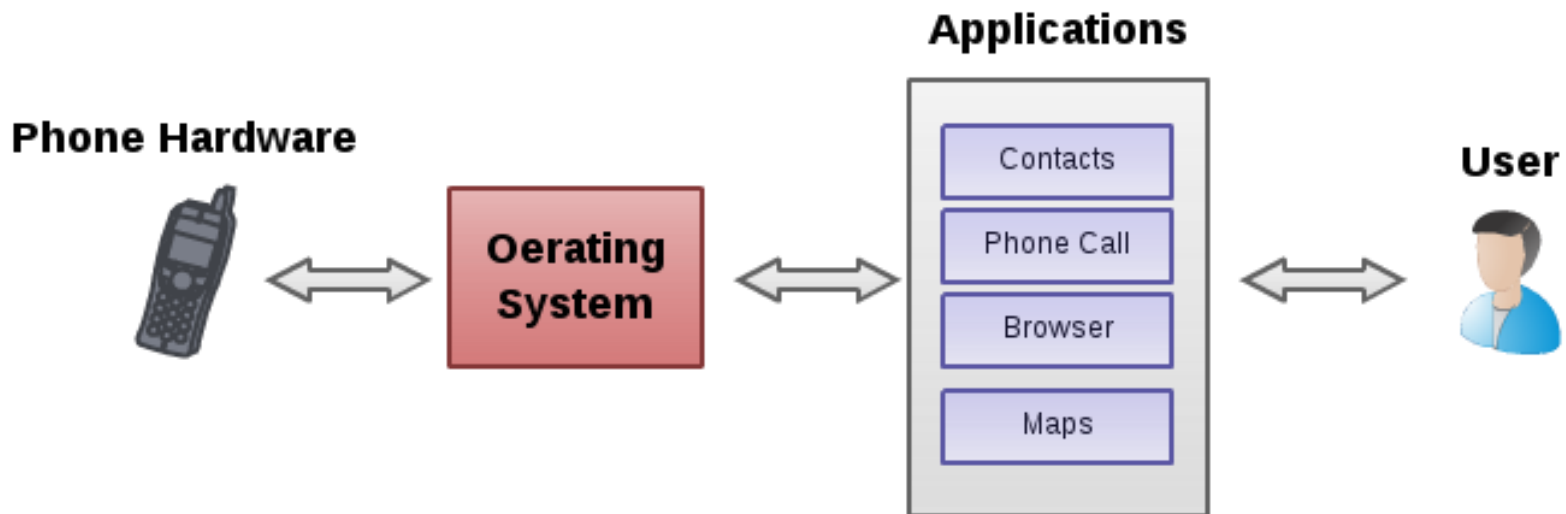
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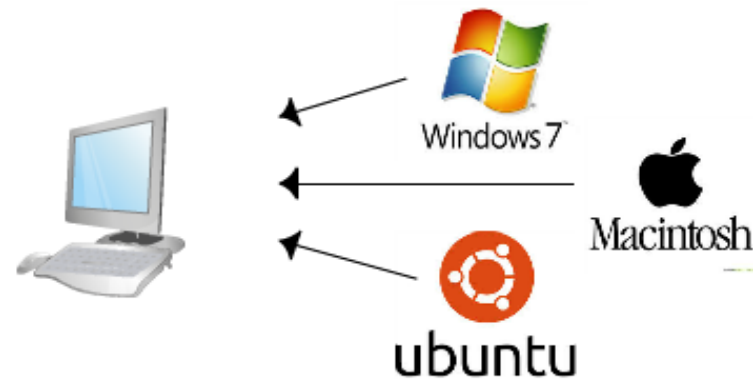
# What is an Operating System ?

- Collection of software components
  - Manage hardware resources
  - Provide common services for programs



# Operating Systems

- For a PC



- For Smart Devices: Additional Support, more constraints



# Some components of an OS

- Kernel
  - Basic control over hardware devices
- Memory Management
  - Independent memory for programs
- Multi-tasking
- Disk Access
- User Interface
- Security
- Program Execution
- Networking

# Popular Operating Systems



**iOS**



**Android**



**Windows 8**



**Blackberry OS**



**Firefox OS**



**Symbian**



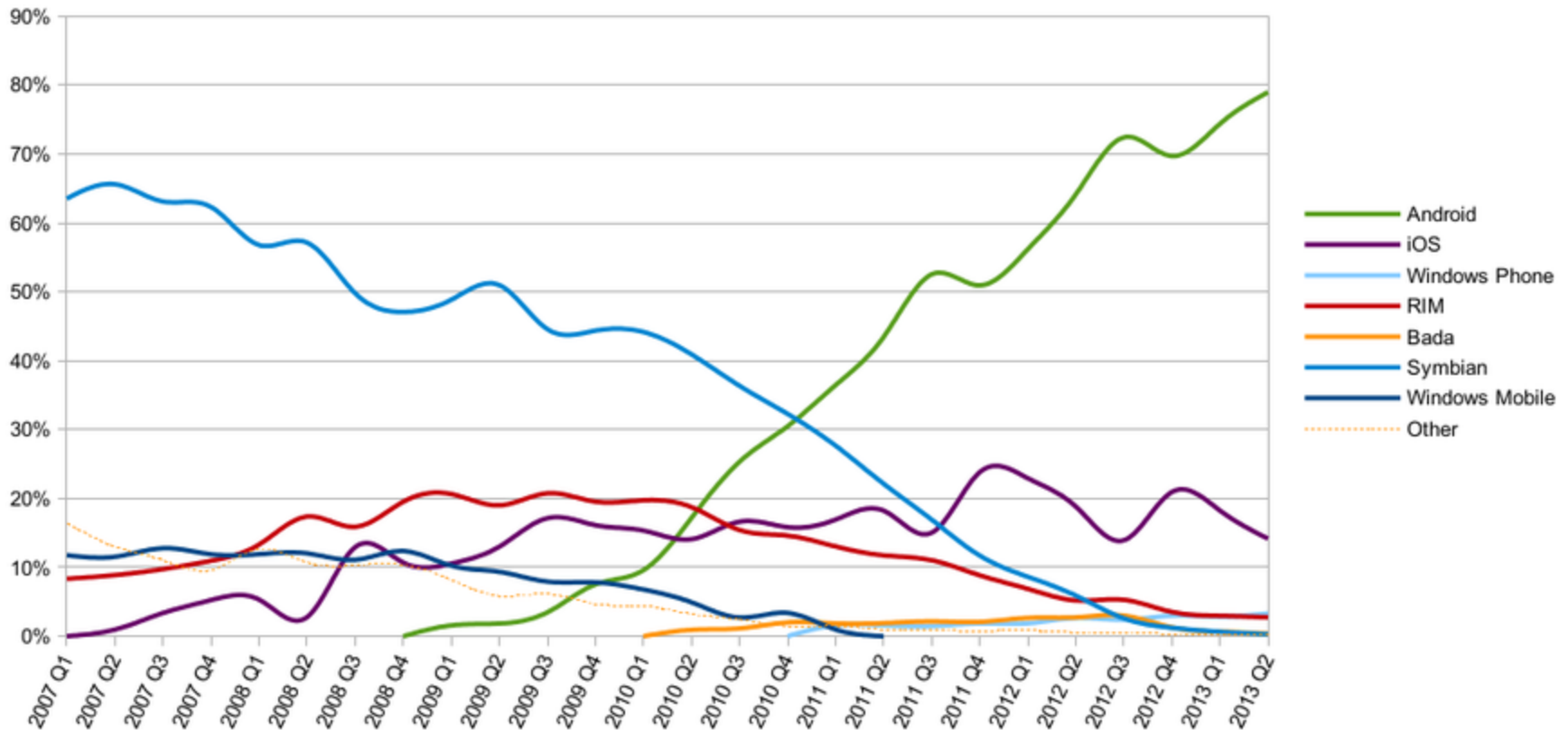
**Ubuntu Phone**

# Impact on M4D

- Market share
- Developer perspective
  - Freedom to modify OS, build applications
- Community support, release cycles
- Security
- Application repositories
- Functionality:
  - Multi-lingual Support
  - Supported hardware
  - Multi-user

# Operating Systems Market Share

World-Wide Smartphone Sales (%)



– \*\*[http://en.wikipedia.org/wiki/Mobile\\_operating\\_system](http://en.wikipedia.org/wiki/Mobile_operating_system)

# Developer Perspective

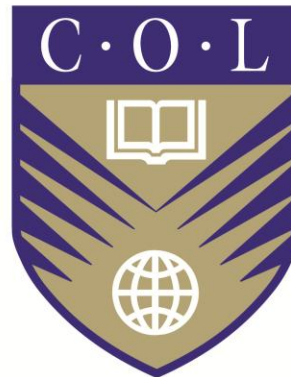
- Open Source vs Proprietary
  - Open Source: Android, Firefox OS
  - Proprietary: iOS, Window 8
- App development
  - Platform for app development: Window, Mac, Linux, All
  - Fee for app development
  - Fee to publish applications on app stores



# Summary

- Mobile operating system
- Selection of a particular operating system
  - Functional concerns
  - Non-functional concerns
- Next lecture
  - Appify or not ?
  - Different ways to develop applications on mobile device

# THANK YOU



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