

CSC 471 / 371
Mobile Application Development for iOS




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Outline

- What is mobile computing?
- The convergence:
mobile + computing
- The story of Apple Inc.
- The story of iOS




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What is Mobile Computing?

- Computing technologies centered around mobile devices.
- (a computing device that is)
... an iPod, a Phone, an Internet communicator, ...
– Steve Jobs, 2007

Mobile Computing =
Computation + Mobility + Connectivity

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Elements of Mobile Computing

- Mobile hardware, devices
 - CPU, GPU, memory, network connectivity
- Mobile software
 - Mobile platforms, and apps
- Mobile connectivity
 - Wireless Internet, WiFi, Bluetooth, cellular network
- Human Computer Interaction
 - Alternative input mechanisms: touch, motion, voice
 - User interface design

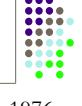
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A Brief History of Apple & iOS, & others




1976 By Ron Wayne
1977 - 1998 By Rob Janoff
1998 Translucent Version
1998 - 2000 Monochrome Version
2001 - 2007 Aqua Version
Current Chrome Version

The Story of Apple – The Apple I, 1976

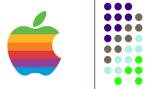


Apple I, 1976
Homebrew Computer Club, Palo Alto, CA, \$666, ~200 units sold




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The Story of Apple – The Apple II, 1977



- Introduced June 10, 1977
- First highly successful and mass produced PC



Apple II, 1977
Retail \$1,298, ~6 million units sold

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Graphical User Interface (GUI) 1973-1981, Xerox PARC

- The invention of GUI

- Windows, icons, menus, etc.

- The Xerox Star workstation

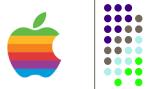
- The invention of the mouse



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The Macintosh Apple Computer, 1984



- Steve Jobs visited Xerox PARC in the winter of 1979
“What is going on here? You’re sitting on a gold mine! Why aren’t you doing something with this technology? You could change the world!”
- The first PC with a Graphical User Interface (GUI) and a mouse



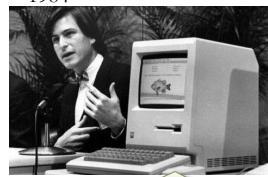
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The Macintosh Launch, 1984



- Steve Jobs introduced the Macintosh on January 24, 1984



Macintosh, 1984
Retail \$2,495, 72,000 units sold in the first 100 days

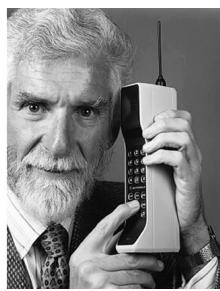
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Motorola DynaTAC 1983, Motorola Corp.



- Inventor, Martin Cooper
- The first cell phone approved for commercial use.
- Weight: 2lb



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The Oust of Jobs, 1985



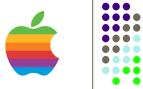
- Steve Jobs was forced out of Apple by CEO John Sculley, May 1985
- Sold all but one of his 6.5 million shares
- Acquired Pixar (\$5 million)
- Started NeXT Inc.
 - Introduced the NeXT computer in 1988
 - Retail \$6,500, ~50,000 units sold
 - Operating System: NeXTSTEP
 - Tim Berners-Lee used a NeXT Computer in 1990 to create the first web browser and web server.



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Newton Message Pad Apple Computer, 1993



- The first commercially available hand-held computer
- Pioneer of *Personal Digital Assistant* (PDA)
- Weight: 1.4 lb
- ARM 610 CPU, 32-bit
- 4 MB ROM, 640 KB RAM
- 336 x 240 BW display
- Handwriting recognition

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Palm Pilot 1000 US Robotics, 1996



- The first commercially successful personal digital assistant (PDA)
- Stylus input
- Graffiti handwriting recognition
- Infrared port

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BlackBerry Quark 2003, Research in Motion



- The first device with integrated cell phone and e-mail
- QWERTY keyboard
- SMS

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The Rise of Windows



- Microsoft launched Windows 3.0 on May 22, 1990
 - The first Microsoft GUI Operating System
 - 2 million copies sold in the first 3 months
- Windows 3.1 released on March 1, 1992
 - Dominated the market share 85.7% (Mac OS 6.7%)
- Apple sued Microsoft for copyright infringement
- Windows 95 released on August 24, 1995
 - Windows, all versions, 88.6% (Mac OS 4.6%)
- DOJ opened investigations of Microsoft for abusing its monopoly position of Windows

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The Return of Jobs, 1997



- Apple acquired NeXT for \$429 million, December 20, 1996.
 - Use NeXTSTEP as a foundation to replace Mac OS
- Steve Jobs back to Apple as a consultant
- Apple board ousted CEO Gil Amelio, July 9, 1997
 - Steve Jobs named *interim* CEO, later CEO
 - Until his resignation on August 24, 2011
- Microsoft invested \$150 million in Apple



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The Comeback



- iMac, August 15, 1998
- iPod & iTune, October 2001
- Mac OS X, March 2001

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iPhone
June 2007, Apple Computer



- The first integrated smart phone
- Multi-touch interface
- Virtual keyboard
- WIFI & 3G

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iPad Tablet Computer
April 2010, Apple Computer



- The first commercially successful tablet computer

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The Most Influential Tech Products Over the Past Two Decades



- Newton MessagePad (1993)
- Netscape Navigator (1994)
- Windows 95 (1995)
- The Palm Pilot (1997)
- Google Search (1998)
- The iPod** (2001)
- Facebook (2004)
- Twitter (2006)
- The iPhone** (2007)
- Android (2008)
- The MacBook Air** (2008)
- The iPad** (2010)

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Apple Joins Dow Jones 30 (DJIA)

- March 19, 2015, Apple replaced AT&T in DJIA
- APPL traded on NASDAQ
 - Went public Dec. 12, 1980 at \$22 per share
 - 2-for-1 split in 1987, 2000, 2005, 2014
 - Closing price on Dec. 1, 2017, \$171.05 per share
- Apple is now the world's most valuable company
 - Market capitalization: ≈ \$878.22 Billion.

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Hello, iOS 11



- Released in September 2017
 - Installed on 52% of iOS devices, as of November 2017.
- Highlights of iOS 10
 - Haptic feedback
 - Wide color
 - Siri Kit
 - Speech recognition
 - Improvements to SDK
 - Swift 3
- Highlights of iOS 11
 - Redesigned UI
 - Dock, keyboard, control center, multitasking
 - iCloud Drive, Files app
 - Drag and drop
 - Camera and live photos
 - Swift 4

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Next ...

- Set up the development environments
- Get to know Xcode
- Build your first iOS app

◆ Xcode, iOS, WatchOS are trademarks of Apple Inc.

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