

From Innovation to Production: Making It Work Is Just the Beginning

Dennis G. Ravenelle
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Mark Zuckerberg - Forbes - Windows Internet Explorer

http://www.forbes.com/profile/mark-zuckerberg/

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Mark Zuckerberg - Forbes

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The World's Billionaires


Forbes 400 Richest Americans

World's Most Powerful People

World's Most Powerful Women

Browse list

#51 Aliko Dangote



Mark Zuckerberg

Net Worth **\$17.5 B** As of November 2011

+ Follow Mark Zuckerberg 1073

At a Glance


Title: **Founder, Facebook**
Age: **27**
Source: **Facebook, self-made**
Residence: **Palo Alto, CA**
Country of Citizenship: **United States**
Education: **Drop Out, Harvard University**
Marital Status: **Single**

Forbes Lists

#9 Powerful People
#14 Forbes 400
#52 Forbes Billionaires
#22 in United States

Key Connections

People



Profile

Powerful People: November 2011

What the CIA failed to do in 60 years, Zuck has done in 7:
knowing what 800 million people--more than 10% of the world's

Why are we here?

Introduction to the intellectual enterprises of computer science and the art of programming. This course teaches students how to think algorithmically and solve problems efficiently... Problem sets inspired by real-world domains of biology, cryptography, finance, forensics, and gaming.



Systems / Software Development Life-cycle (SDLC)

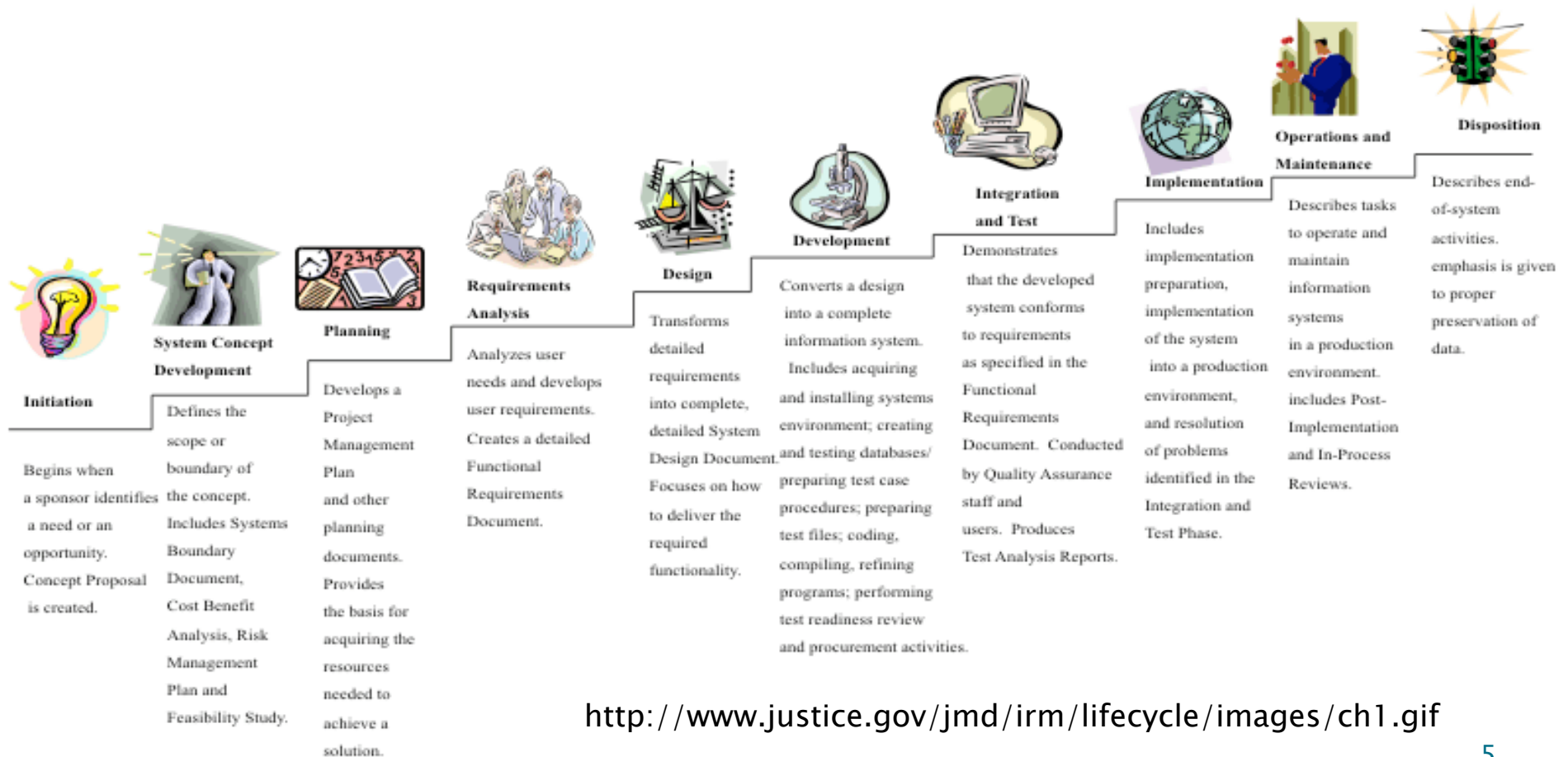
- DevOps
- Agile
- Waterfall
- Incremental
- Spiral
- Prototyping
- RAD/JAD
- RUP

Plan → Design → Implement → Operate

P D I O

Systems Development Life Cycle (SDLC)

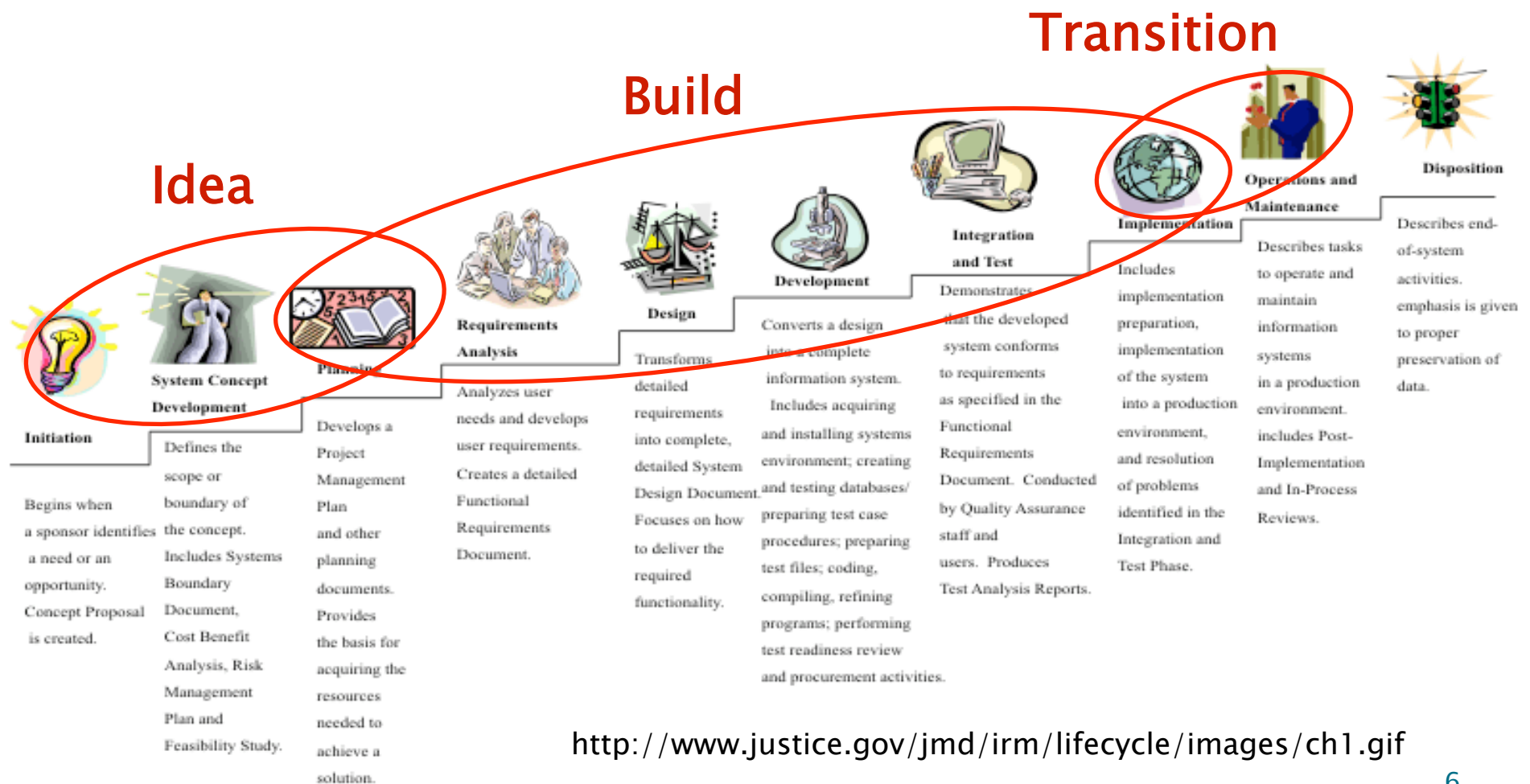
Life-Cycle Phases



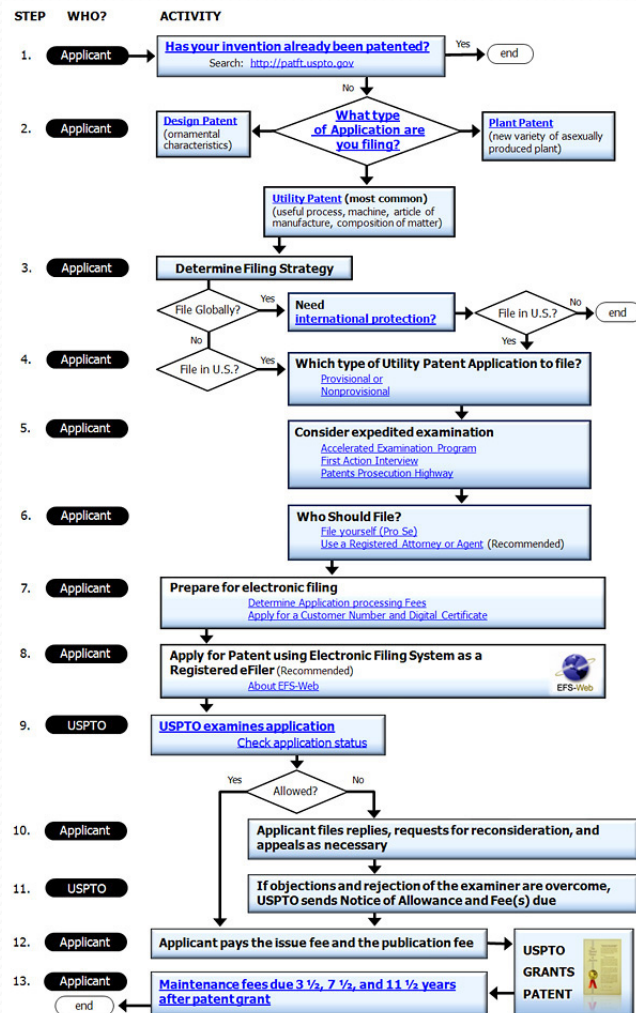
<http://www.justice.gov/jmd/irm/lifecycle/images/ch1.gif>

Systems Development Life Cycle (SDLC)

Life-Cycle Phases



Patents, Copyrights & IP



[Download Utility Patent Application Guide](#)

Using Google Patents Bought Last Week as Battle Escalates - Bloomberg - Windows Internet Explorer

<http://www.bloomberg.com/news/2011-09-07/htc-sues-apple-alleging-infringement-of-four-u-s-patents.html>

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ues Apple Using Google Patents Bought Last W...

MARKET SNAPSHOT

	U.S.	EUROPE	ASIA
DOW	12,153.70	+259.89	2.19%
S&P 500	1,263.85	+24.16	1.95%
NASDAQ	2,678.75	+53.60	2.04%

4% ↑ Nasdaq 2,678.75 +2.04% ↓ Dow 12,153.70 +2.19% ↑ S&P 500 1,263.85 +1.95% ↑ FTSE 100 5,545.38 +1.8

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HTC Sues Apple Using Google Patents Bought Last Week as Battle Escalates

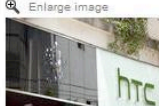
By Phil Milford and Susan Decker - Sep 8, 2011 12:00 AM ET

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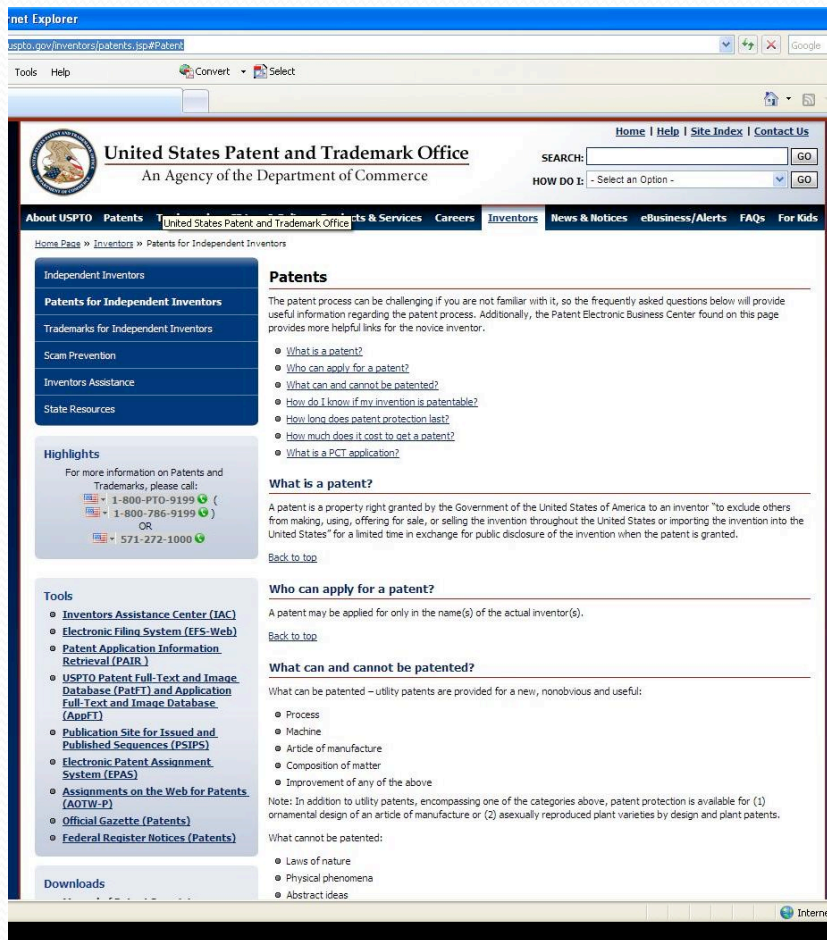
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HTC Corp. (2498), Asia's second-biggest smartphone maker, is using nine patents bought from Google Inc. (GOOG) last week to pursue new infringement claims against Apple Inc.

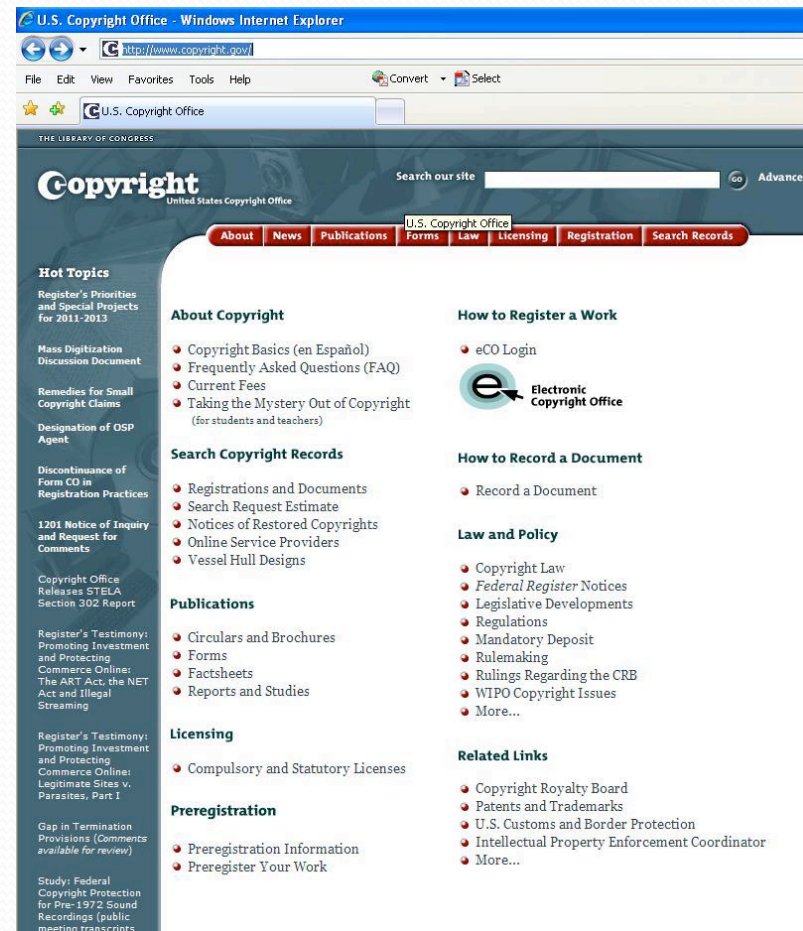
Google had taken ownership of the patents less than a year ago, with four of the patents originating from Motorola Inc., three from Openwave Systems Inc. and two from Palm Inc., according to U.S. Patent and Trademark Office records. Jim Prosser, a spokesman for Mountain View, California-based Google, wouldn't discuss reasons for the nine transfers to HTC.



Patents, Copyrights & IP



<http://www.uspto.gov>



<http://www.copyright.gov>

Does it Scale?

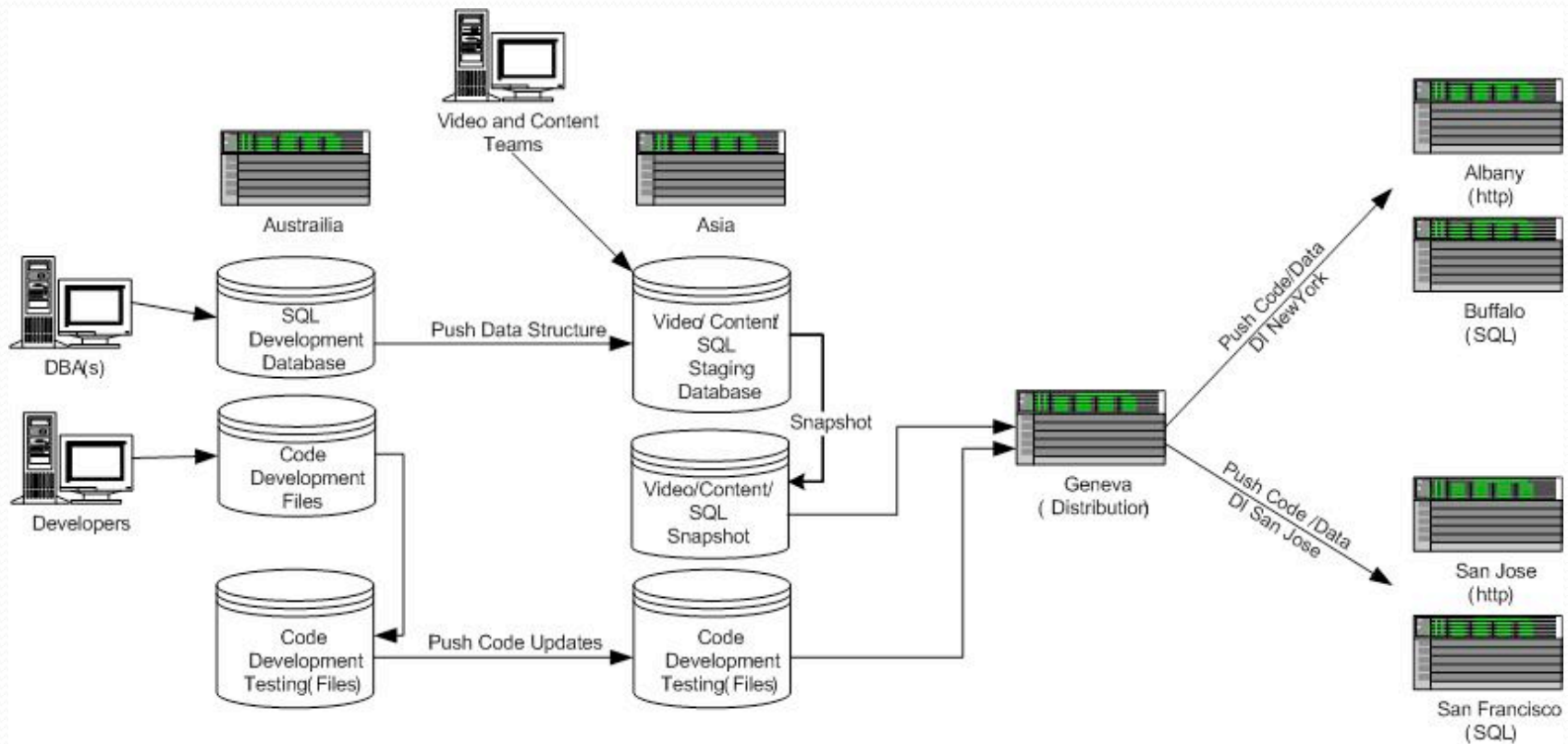
Micro

- Processor capacity
- Memory
- Threads
- Filesize
- Bandwidth

Macro

- Supportability and maintainability
 - Who's taking the calls?
 - Who's fixing it?
- Capacity
 - How many simultaneous users?
 - How many servers?
 - Load balancing
- Availability and Continuity

Testing



Testing

Functionality (exterior quality)	Engineering (interior quality)	Adaptability (future quality)
Correctness	Efficiency	Flexibility
Reliability	Testability	Reusability
Usability	Documentation	Maintainability
Integrity	Structure	

Table 1. Typical Software Quality Factors [Hetzel88]

[Hetzel88] Hetzel, William C., *The Complete Guide to Software Testing, 2nd ed.* Publication info: Wellesley, Mass. : QED Information Sciences, 1988. ISBN: 0894352423. Physical description: ix, 280 p. : ill ; 24 cm.

http://www.ece.cmu.edu/~koopman/des_s99/sw_testing/

Documenting and Source Code Protection

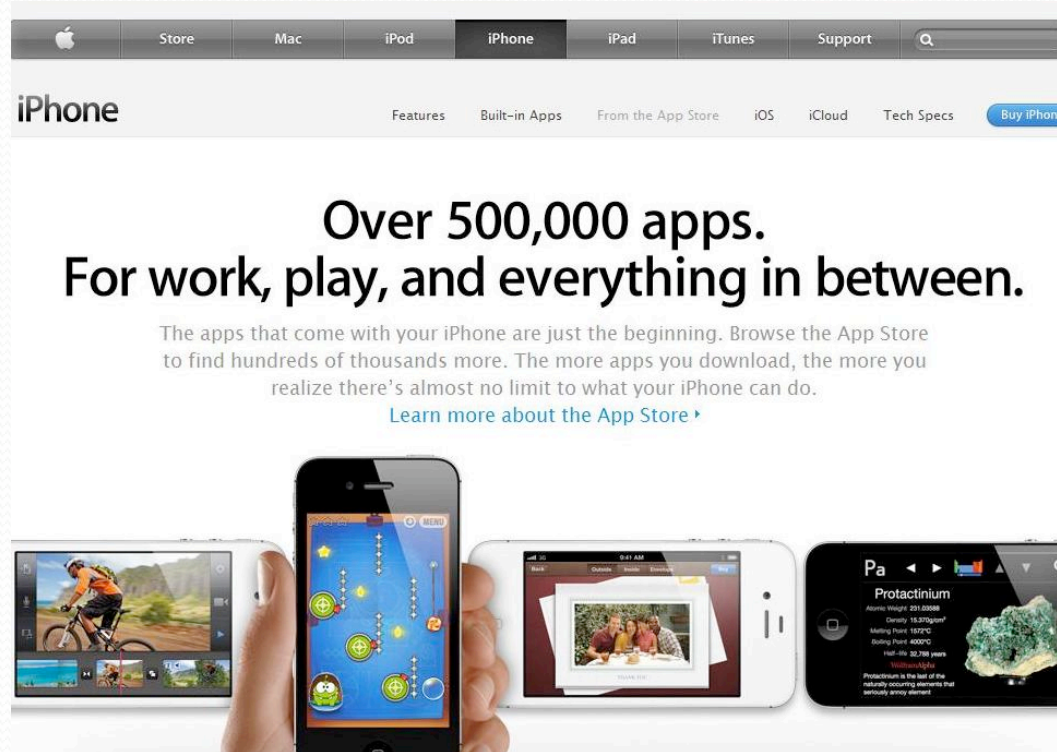
- In the code:
 - Comment, Comment, Comment!
 - Use good coding practices to make it readable
- External:
 - Flowcharts and diagrams
 - Narratives of what's happening
- Open Source Version Control tools:
 - GNU RCS
 - CVS
 - Vesta
- Commercial
 - VSS (MicroSoft)
 - ClearCase (IBM Rational)
 - Vault

Support

- Who?
- How?
- FAQs
- Known issues
- Error messages
- Diagnostics
- Logging
- Phone home
- Back doors
- Patching
 - OS/browser changes
 - Security

Economics

- June 2009: 50,000 iPhone Apps
- Today ...

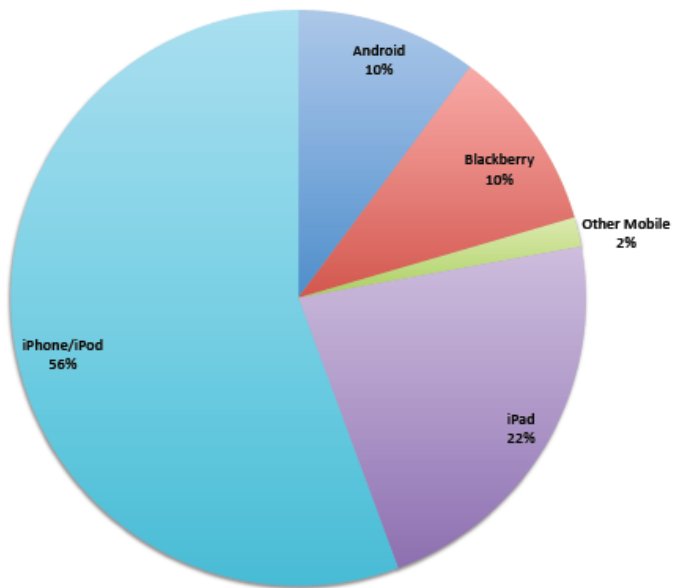


Economics

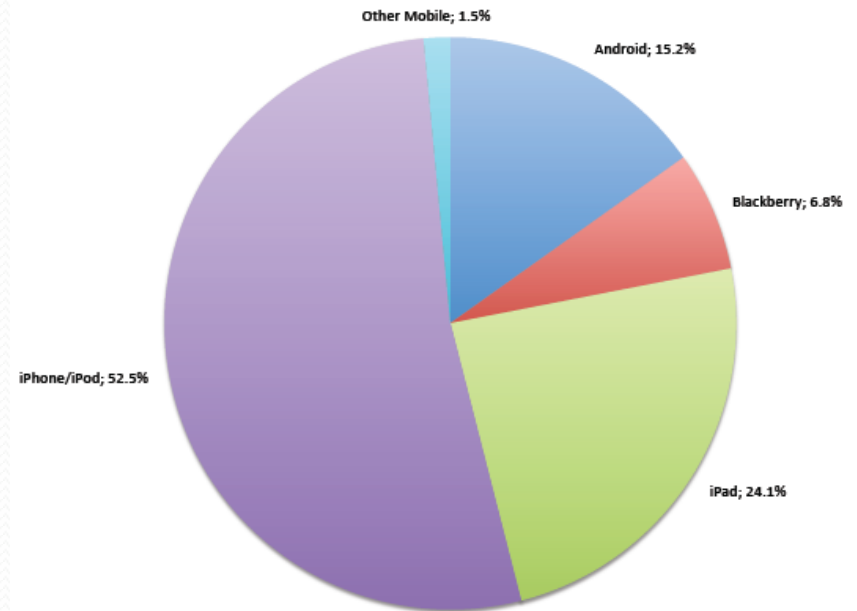


Economics – Market Data

iSites - Mobile Browsers of Authenticated Users, 1-Aug-2010 thru 25-Aug-2010

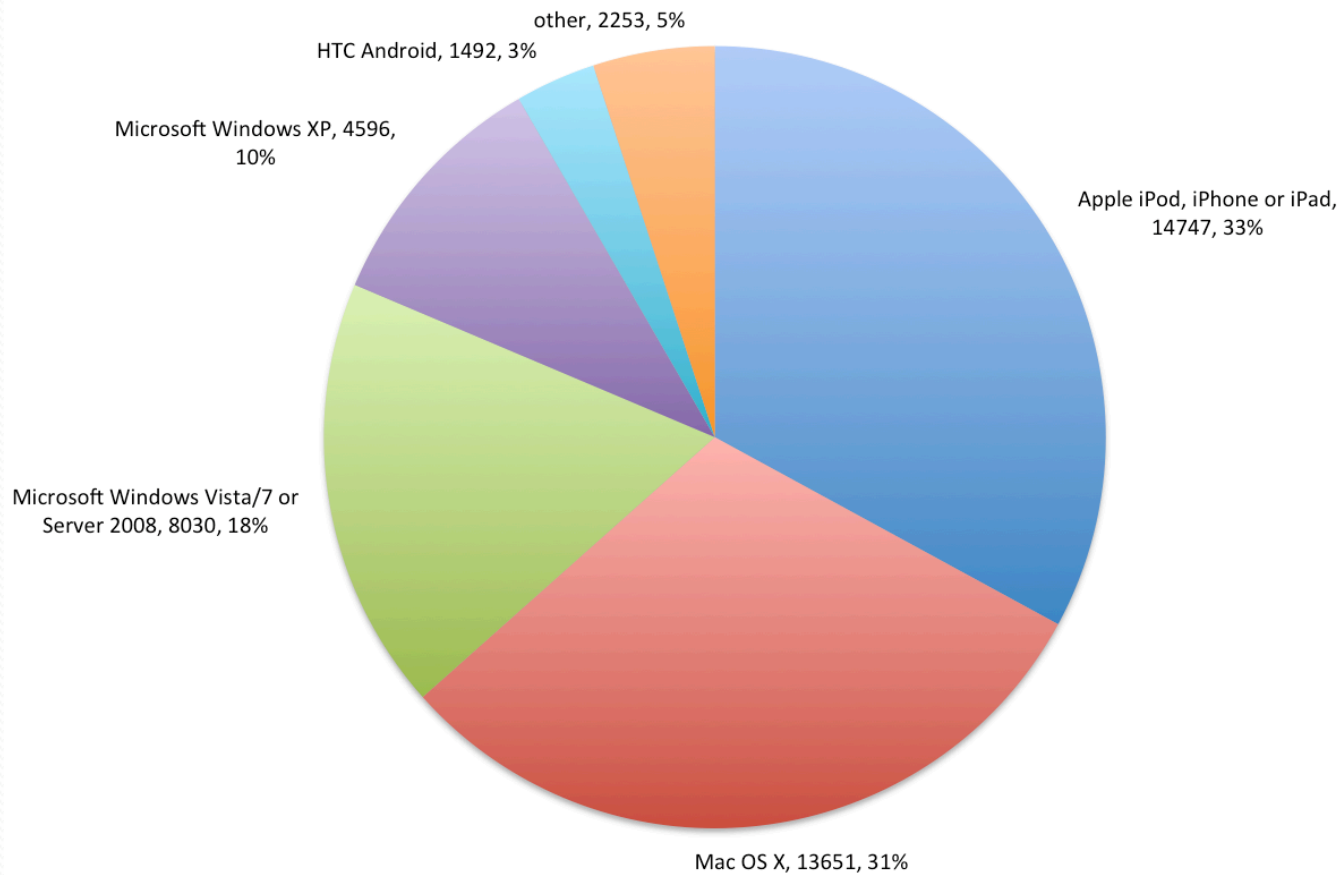


iSites Authenticated User Mobile Browser Usage - December 2010



Economics – Market Data

Autoreg-registered devices by OS, 28 June 2011



IEEE Computer Society

ing Now Archive | November 2011: Challenges and Opportunities in Mobile Web and App Devel - Windows Internet Explorer

http://www.computer.org/portal/web/computingnow/archive/november2011%20?utm_source=bronto&utm_medium=email&utm_term=Mobile+devices

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Challenges and Opportunities in Mobile Web and App Development

Guest Editor's Introduction • Ron Vetter • November 2011



The development of mobile applications that can run across multiple heterogeneous devices is challenging. Not only do mobile devices differ considerably at the hardware level, but the software development environments are also very different. This month's theme highlights some of the issues and challenges involved in this active area of software development.

Generally speaking, there are two approaches to mobile app development: Web-based, which involves technologies such as HTML5, CSS, Javascript, and related frameworks; and development on native platforms, such as iOS, Android, and Windows Mobile 8.

One of the main advantages of native app development is the ability to reach hundreds of millions of customers simply by uploading your app to a store. Apps developed in a native platform technology currently outpace Web-based alternatives in both the number of available apps and the time spent by users on the device. That being said, the main advantage of the mobile Web approach is its rapid deployment model and its ability to run immediately on multiple platforms via a Web browser. Many developers see the ability of Web-based apps to circumvent the somewhat formal, and often lengthy, process required to deploy apps in a store as a huge benefit. However, Web-based solutions suffer from browser incompatibilities, an uncertain monetization strategy, and slow evolution of mobile Web development standards.

While mobile Web apps are proliferating, there will be an active market for native apps for some time to come. A good understanding of the advantages and limitations of both development approaches will be important to successful application deployment and a positive user experience. Many developers see hybrid approaches as a natural migration path for developing cross-platform code that can run in a device-independent way across multiple hardware platforms. Companies such as **PhoneGap** and **AppMobi** are selling hybrid cross-platform solutions using the HTML5 programming model, thereby leveraging Web technologies that developers already know. This approach appears to be promising for future mobile Web and app development efforts.

http://www.computer.org/portal/web/computingnow/archive/november2011%20?utm_source=bronto&utm_medium=email&utm_term=Mobile+devices+differ+at+the+hardware+level



Why Companies Fail--and How Their Founders Can Bounce Back

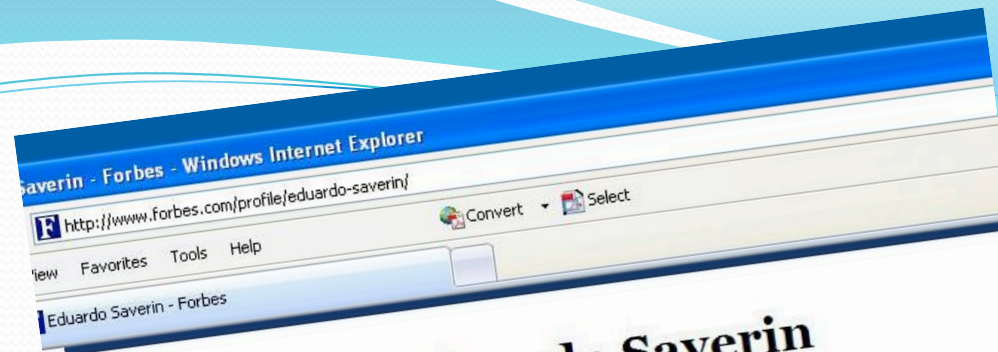
Published: March 7, 2011

Author: Carmen Nobel

The statistics are disheartening no matter how an entrepreneur defines failure. If failure means liquidating all assets, with investors losing most or all the money they put into the company, then the failure rate for start-ups is 30 to 40 percent, according to Shikhar Ghosh, a senior lecturer at Harvard Business School who has held top executive positions at some eight technology-based start-ups. If failure refers to failing to see the projected return on investment, then the failure rate is 70 to 80 percent. And if failure is defined as declaring a projection and then falling short of meeting it, then the failure rate is a whopping 90 to 95 percent.

<http://hbswk.hbs.edu/cgi-bin/print/6591.html>





Eduardo Saverin

Net Worth **\$2 B** As of September 2011

+ Follow Eduardo Saverin

189



At a Glance

Age: 29

Source: **Facebook, self-made**

Residence: **Singapore, Singapore**

Country of Citizenship: **United States**

Hometown: **Brazil**

Education: **Bachelor of Arts / Science, Harvard University**

Marital Status: **Single**

Forbes Lists

#212 Forbes 400

#782 Forbes Billionaires

#282 in United States

Profile

Forbes 400: September 2011

Eduardo Saverin was immortalized in the movie, *The Social Network*, which portrayed him being betrayed by his onetime best friend Mark Zuckerberg. The buddies started Facebook together at Harvard, with Brazilian-born Saverin apparently providing early seed money. For a brief time he had a one-third stake, which then fell to 30% when Zuckerberg's roommate,

Key Connections

People



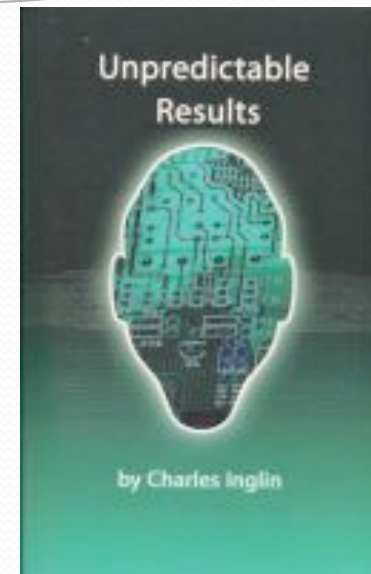
Colleges



Looking for money ...

- Need:
 - Demo
 - Elevator Pitch (200 words or less)
 - Business Plan is helpful
- Where to look:
 - Angel Investors
 - <http://blog.jonpierce.com/post/520863618/bostons-best-angel-investors>
 - WPI (Worcester Polytechnic Institute) Venture Forum
 - LA Venture Association (www.lava.org)
 - Some law firms

- Unpredictable Results
 - Pentium long division
- Unintended Consequences
 - Trapster
- Disasters
 - 1987 Wall Street Crash



Discussion?

Thank you!
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