Apple: 8 Easy Steps to Beat Microsoft (and Google)

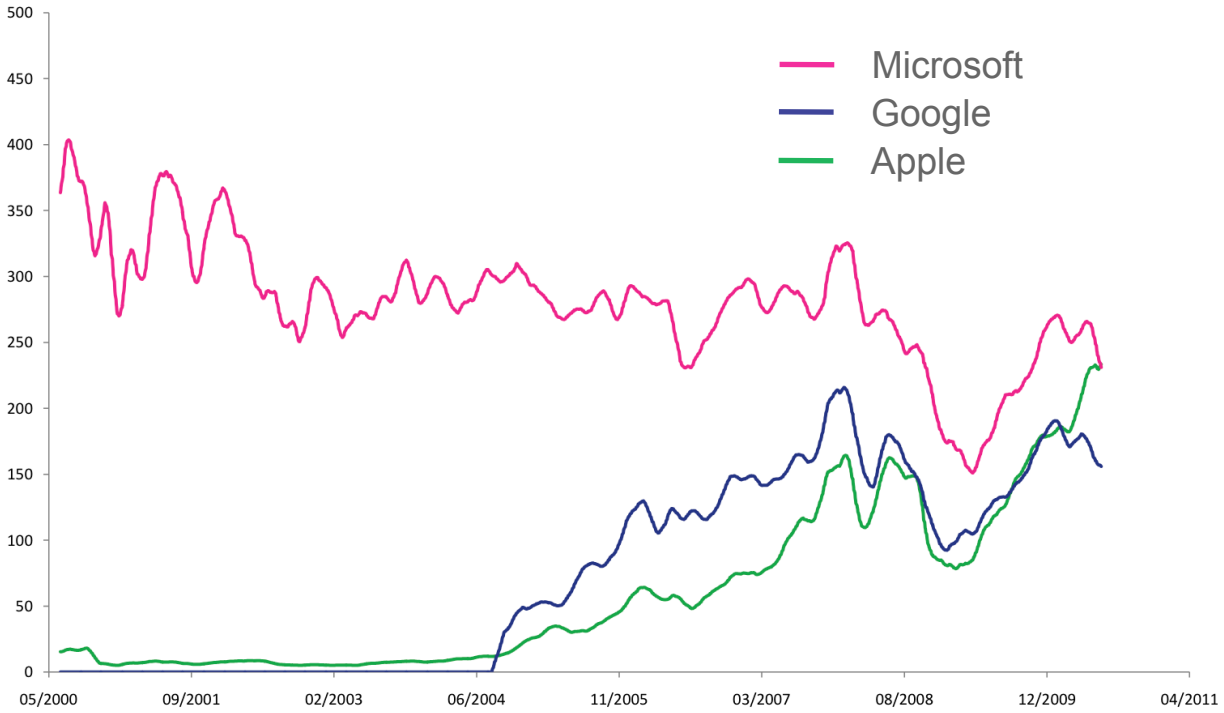
Paris, July 2010

faberNovel

ideas with legs

Table of contents

Why and how did Apple beat Google & Microsoft?



In 6 years, Apple's market cap outweighed both the new and old tech champions

Source: Bloomberg

Step #1: Believe in the simple

Apple: the arrogance of simplicity

What is Apple's design process?

"When you first start off trying to solve a problem, the first solutions you come up with are very **complex**, and most people stop there. But if you keep going, […] you can often times arrive at some very **elegant** and **simple** solutions." Steve Jobs[1]

Apple identifies needs and use cases to make decisions about function and technologies.

Vision

Drops 20 % of non-required functionalities to perfectly design 80 % of key user needs.

Focus

Attention to details leads to excellence in user experience.

Global

[1] Q&A: Jobs on iPod's Cultural Impact, Newsweek, 10/16/2010

Case study: iMac (1998)
Simplicity & choices

Simplicity

All-in-one computer
Setup & go

Choices

No floppy disk
No extension stack

Case study: why does making choices implies constraint?

"It became an intense and almost religious argument about the **purity of the system's design** versus the **user's freedom** to configure the system he liked."
Christopher Espinosa (Apple employee #8) speaking about the Macintosh project, 1984

No sign of upcoming **blu-ray** support on Apple computers.

"**YouTube** now supports HD video." Steve Jobs[1]

Music can **only** be managed through iTunes.

"Other companies tried to do everything on the device itself and made it so **complicated** that it was **useless**." Steve Jobs[2]

App Store **approval** process as a quality insurance.

"We created an approval process [to] **avoid** applications that degrade the **core experience** of the iPhone." Apple Answers the FCC's Questions

[1] Email on 04/14/2010
[2] Q&A: Jobs on iPod's Cultural Impact, Newsweek, 10/16/2010

Step #2: Design a full experience

Apple adopts a comprehensive approach

Apple re-legitimize vertical integration

Customer-centric

Apple goes against the **outsourcing** trend.

Contrary to industrial vertical integration, Apple uses it to **control the global experience** of its customers.

App Store contributed to **only 1 % in profit**![1]

"Pure" financial management would have required it to be outsourced as soon as possible.

Business design

Apple adopts a **holistic approach** to its business.

Products
UX
Financial
Marketing

Apple advertisement are designed **internally**.

Mobile carriers are only allowed to show their logo at the end.

Focus

Apple focuses on a very **lean product line**.

Risk management on technological choices and consistency at all layers

"We've reviewed the road map of new products and axed more than 70 percent of them, keeping the 30 percent that were **gems**."

Steve Jobs upon his returning to Apple in 1997

[1] Source: Piper Jaffray

Apple's vertical integration offers three competitive advantages

"Our competitors, Dell and Compaq, are **distribution** companies […].
They don't create anything."
Steve Jobs, Time, Oct 1999

Simplicity

Apple acts as an **abstraction layer**.

Technical complexity hidden behind slick and **intuitive** UI: seamless experience.

Quality

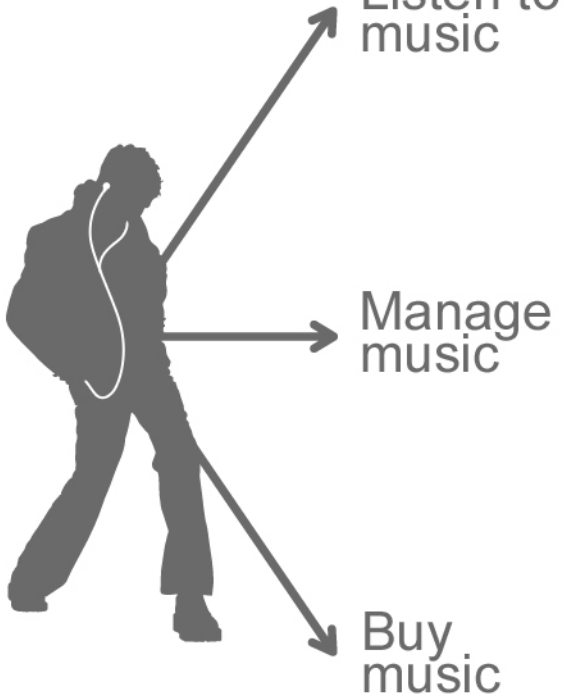
Thanks to hardware and software tight **integration**, Apple's products offers great quality.

Innovation

Apple does not depend on its suppliers' technical breakthroughs.

It can innovate on hardware and software at **its own pace**.

Case study: the digital music revolution (2001-2004)



- Chose high-speed FireWire instead of USB1
- Game-changing click wheel
- Apple's design guidelines applied

- iTunes software
- Available on Mac & PC
- Simple and reliable software

- Agreements with the music industry
- Distribution
- DRM[1]

Apple provides a **comprehensive** music experience

[1] Digital Rights Management (DRM): technologies used by content owners to control usage of music, movies…

Case study: Apple's vertical integration in hardware for consumer electronics



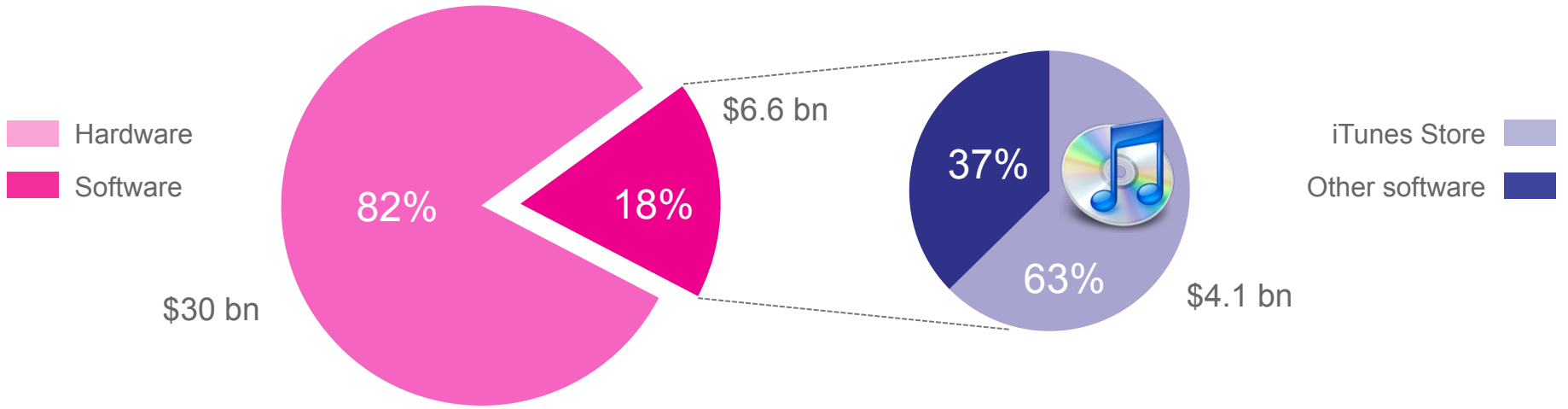
Hardware	Microprocessor	? most probably built on ARM technology	✗
	Integrated circuit	✓	✓	✗
	Design	✓	✓	✓
Software	OS	✓	✓	✓ Pixo OS acquired in 2004
	Hight-level software	✓	✓	✓

Apple controls every step: it ensures that almost every hardware and software parts are **customized** to **perfectly** fit its needs.

Step #3: Lock customers in

iTunes' goal is to lock the consumer in

iTunes revenues are insignificant



Revenue Distribution in 2009

The iTunes Store represented only **11 %** of Apple's revenues in 2009.

Source: Apple annual reports

Case study: App Store revenues are a drop in the bucket

$6.8 bn Revenues generated by iPhone (hardware) sales **in 2009** (22 % of Apple's revenues)

$400 m Revenues generated by App Store sales **since its creation**

< 1 % App Store contribution to gross profit **since its creation**

Apple authorizes and sometimes **promotes** apps **competitors** to its iTunes Store during keynotes.

Source: Keynote WWDC 2010, Piper Jaffray

Yet iTunes' goal is to lock the consumer in

iTunes-devices relationship is **locked**

One-way sync

(Palm controversy)

FairPlay

DRM software invented by Apple, protecting videos, eBooks, apps[2]

Consumers **lock themselves in**

$100

spent per device on av.[1]

125 m

iTunes accounts linked with credit card (painless buying experience)

Great **customer loyalty** (user retention/walled garden)

[1] Deutsche Bank.
[2] There are no DRM on iTunes Music since 2009.

Step #4: Sell at a premium

Apple's revenues come from high margin hardware products

Case study: Apple's profit comes from margins in hardware (iPad)

$499

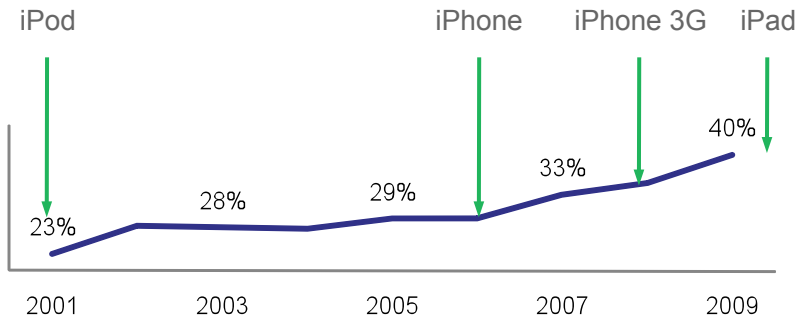
Margin: 40 %

$110	**+ Apple margin**
$90	Average industry margin (approx. 30 %)
$70	Cost of sales (approx. 30 %)
$230	Cost of materials and manufacturing[1]

[1] Source: iSuppli

Big picture: hardware drives Apple's gross margin

VS.



Biggest gross margin growth **in the industry**

Source: Apple annual reports

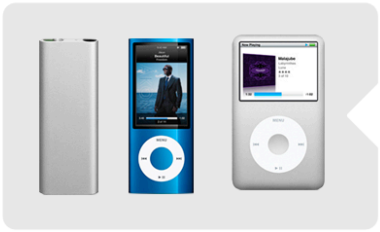
Step #5: Cross-sell your product line

Apple brand appeal drives its product line

Who is the *iCustomer*?

Product line covers all **markets**, all **price** ranges, all **needs** with an accurate segmentation.

iTunes
From $59 to $249[1]



Market leader

iOS
From $199 to $499[1]

100m iPhones sold by 2011 (est.)

Mac OS
From $699 to $1199[1]

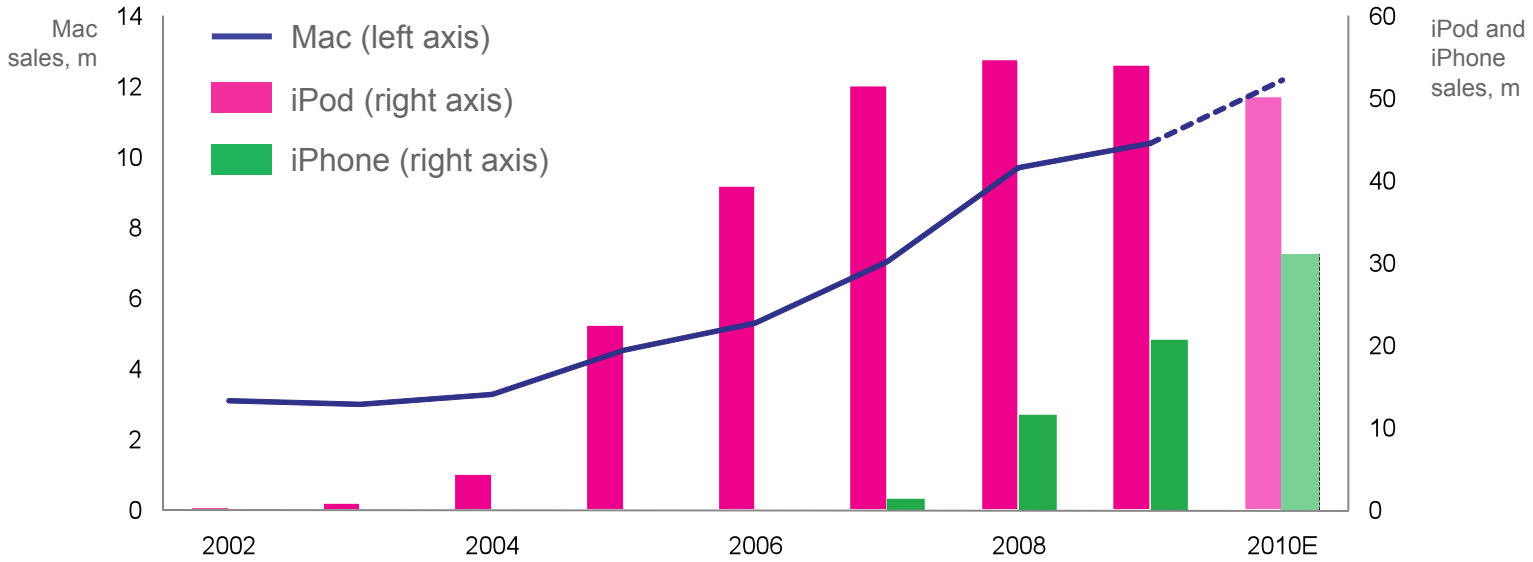
8 % market share

+ **Product lifecycle**: each new product implements appealing new features, strongly inducing the loyal ***iCustomer*** to buy new products (iPhone 3GS to iPhone 4)

The *iCustomer* needs **all** Apple products to maximize his user experience.

[1] Prices for entry-level models.
Source: Apple, Morgan Stanley, Gartner.

Case study: iPod and iPhone drives Mac sales



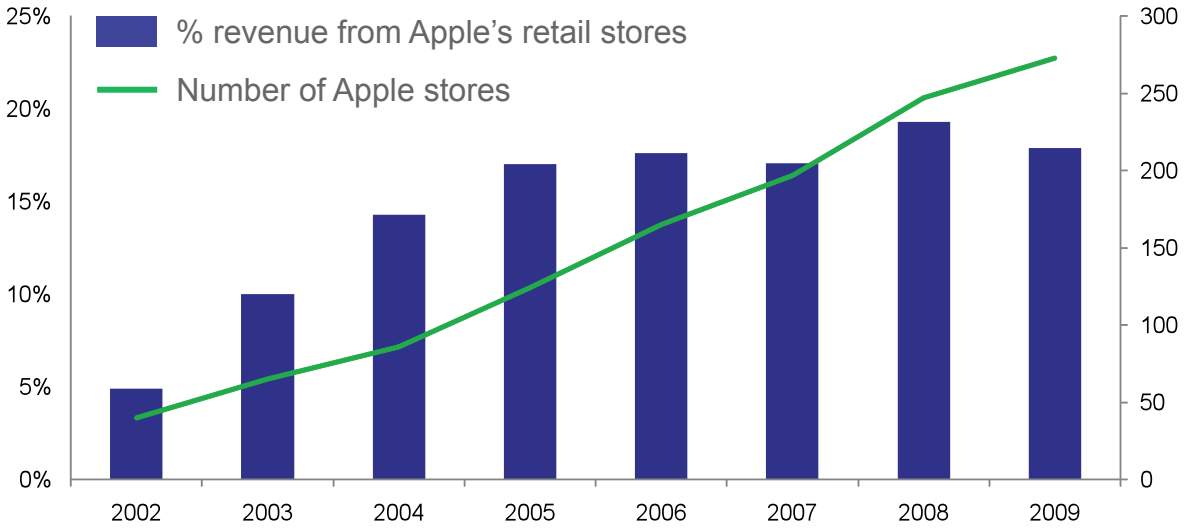
Halo effect[1] + seamless experience with mobile devices requires a Mac

40 % of Apple revenues comes from Mac sales (desktop and laptop).

[1] *Halo effect*: e.g. a product (the iPod) has positive effects on our perception of something else (the Apple brand)
Source: Apple annual reports, Oppenheimer

Integration reinforced by retail strategy

"We want to make the best **buying experience** in the world […]. It's impossible to get **knowledge** at the point of sale. We can't **thrive** in that environment." Steve Jobs, D2



Contribution to revenue starting to plateau (but profitability sacrificed to enhance buying experience) but still **Apple Stores** are a place where the company can:

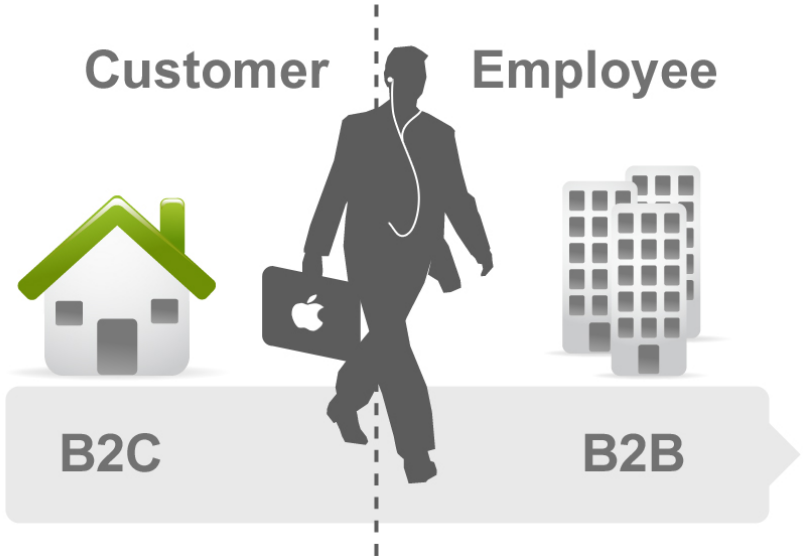
- showcase a 100 % Apple environment (to appeal the *iCustomer*)
- have a **trained sales force** selling its products.

Apple Stores **fosters the brand appeal** and consequently, the *halo effect*.

Source: Apple annual reports

iCustomers will drive Apple's sales

Apple's main focus is the **consumer market** where "every person votes for themselves"
Steve Jobs, D8

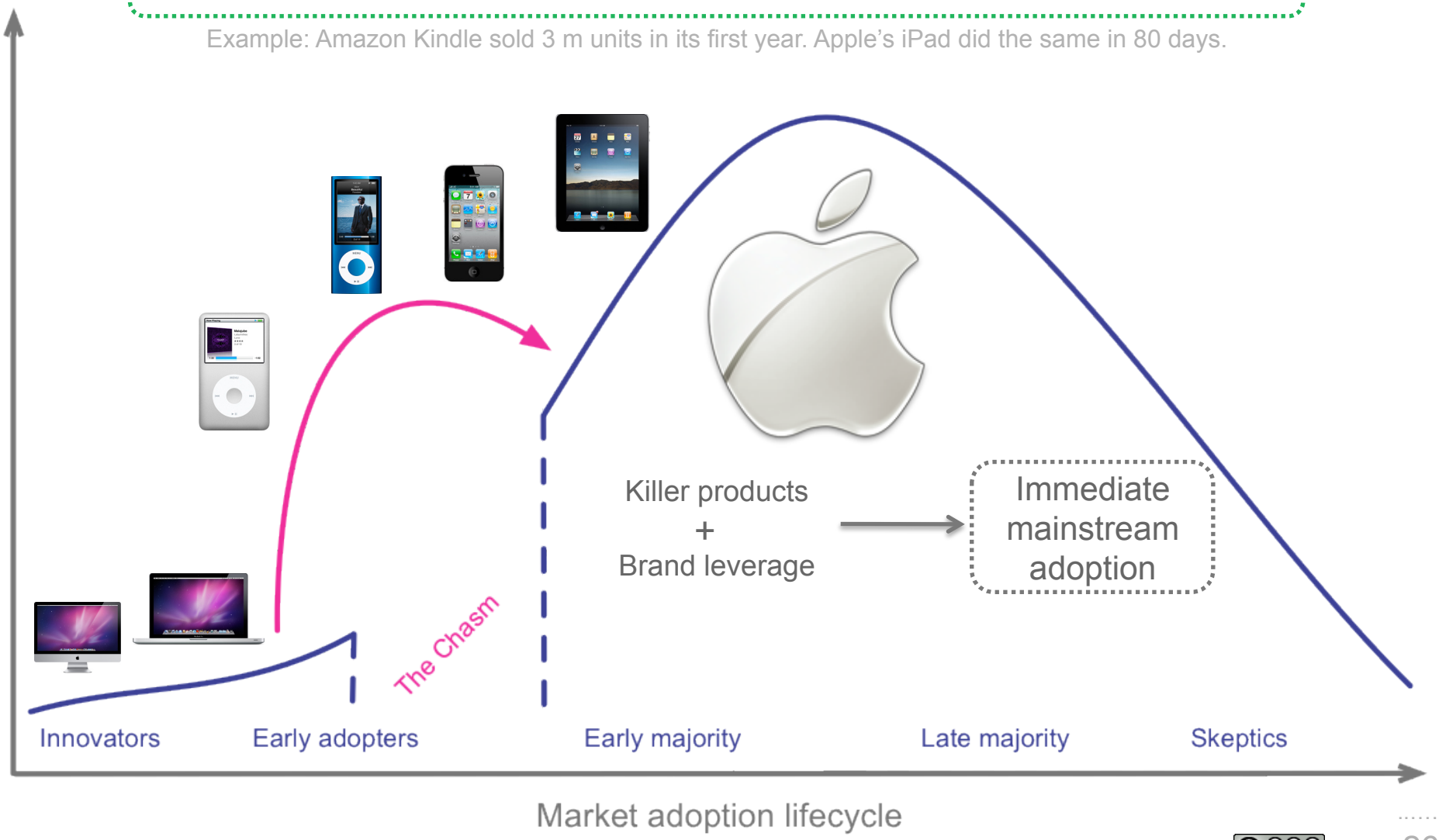


However, thanks to its thriving success in **B2C**, Apple will be able to raise its market share in **B2B**

How did Apple cross the chasm?

iPhone and iPod sales have enabled the Apple brand to cross the chasm.

Example: Amazon Kindle sold 3 m units in its first year. Apple's iPad did the same in 80 days.



Source: Apple, Electronista

Step #6: Balance control vs. freedom

Apple needs an ecosystem

Case study: how Apple failed in the 80's

"We **weren't so good** at partnering with people […]. If Apple could have a little more of that in its DNA, it would have served it extremely well." Steve Jobs, D5, 2007

1982: Steve Jobs forces Bill Gates to develop productivity software only for the Mac

1985: Apple allows Microsoft to use Mac technologies in Windows in exchange of a Word and Excel upgrade for Macintosh

1988-1995: 7-year legal battle lost by Apple

1995: Launch of Windows 95 has definitively dwarfed Apple's share in the PC market

Lessons learned!

Copyright owners

Apple:
• understood their market structure
• gave them what they wanted most (DRM for music, price control for publishers)

Carriers

Crucial to iPhone's success:
• AT&T first allowed Apple, which had no experience in this market, to make the phone they wanted
• Set a standard for others

Developers

Contrary to the Mac, Apple has attracted developers on iOS
• Ground breaking revenue sharing
• 56 % of US mobile dev on iPhone (90 % are single-platform)[1]

Google

Apple's keeps partnering with its #1 competitor because it's the best at certain services (native apps on iOS):
• Search
• Maps
• YouTube

Apple understood it needed to **partner** with other players.

[1] Source: Millenial Media

Mobile application paradigms: Native Apps vs. Web Apps

	Flash Apps	Native Apps	Web Apps
Strengths	Interroperable Offline	Decide optimized Camera, accelerometer, GPS… Mature business model Global UX	Interoperable Light client (browser) Open architecture with hyperlinks
Weakness	Very few support for low-level Needs a proprietary plugin Unoptimized	Low interroperability Device-constraint	Few support for low-level peripheral Few offline capabilities Few relevant IDE Tiresome buying experience
Opportunities	Open sourcing Flash ?	Open source (Android) Quality control (App Store)	Emerging standardization Strong momentum for SaaS
Threats	Controlled by Adobe Proprietary standard	Controlled by one player Proprietary (iPhone)	Dependant on large actors Slow implementation of standards

Apple's model put the emphasis on **native apps** (iPhone SDK), but also promotes **HTML5** (iAd, WebKit). **Flash** represents "the past".

SaaS: Software as a service (see Wikipedia)

Case study: What is Apple's vision about mobile applications?

To Apple HTML5 is a **complement** to the curated App Store model, providing developers with liberty and an open architecture.

Near future

Long-term vision: promoting **open** standards will prevent other players from **excluding** Apple, as Microsoft did with its Office **proprietary** formats.

Step #7: Think different

Apple uses the cloud to foster a new computing paradigm.

From Wikipedia: "*Cloud computing* is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid."

What *was* Apple's vision of computing ?

Personal computer
= only **digital hub**

Applications and UX
= **glue**

Devices = media
consumption/creation

iPad embodies the transition to post-PC era

"We are **scratching** the surface on the kind of apps we can build for it. […] One can **create** a lot of content on a tablet." Steve Jobs, D8

New input technologies + Progress in UI

People will turn to a more intimate and direct relationship with content

Personal computers are **trucks**: most people do not need such an extensive interface.

Other devices, including tablets, will be mainstream, just as **cars** are great for everyday life.

To make it happen Apple is investing in cloud

Differentiation

Without cloud computing, Apple would **lose ground** before its competitors.

- Mobile resources are **constraints** (end of Moore's law[1], battery life), while cloud computing enables speech recognition, unlimited storage…
- Competitors are already **differentiating**: Google Voice, Microsoft Office Online…

Independence

Without cloud computing, Apple would fail to secure **reliable infrastructure**.

- It would be **dependent** on competitors (notably Google and Amazon)
- **Entry barriers** are increasing (experience maintaining security and scalability)

[1] Moore's Law: see Wikipedia.

Three upcoming features to build an Apple cloud

"We're working on it", Steve Jobs, D8, June 2010

MobileMe

Apple makes MobileMe **free** for all Apple users

Devices will be synced wirelessly

Streaming

Streaming as a new paradigm for **media consumption**

- Streamlined UX: no more downloading/buying
- Media & entertainment as a service
- Monetisation: via Quattro Wireless[1]

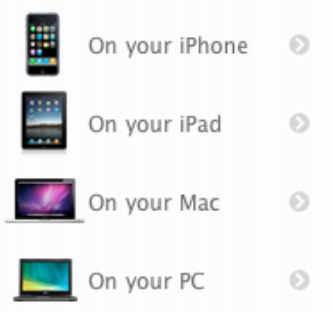
lala

Apple bought Lala (an online music store) in 2009, presumably to build up a cloud-based *iTunes.com*

New glue

The cloud is the new **glue** that links all Apple devices

- Unified storage (iDisk)
- Streaming vs. downloading
- Would greatly improve the iPad



[1] Quattro Wireless is a mobile advertising agency bought by Apple in January 2010.

Fostering a new Apple environment

Decentralisation

Glue = iTunes.com and MobileMe

Variety of devices

Step #8: Assess risks and competition

Apple's notion of control is the company's greatest risk

Overview of Apple, Microsoft and Google

	Apple	Google	Microsoft
Market cap	$230 bn	$140 bn	$210 bn
Revenues	$42.9 bn	$23.7 bn	$58.4 bn
Core business	UX	Advertising	Software
# patents awarded (2009)	300	150	3,000
Hardware			
Software			
Content			

Source: Google Finance, IPO

Will iOS vs Android be the revival of Macintosh vs. Windows?

Apple: control and decide

Tight control on **all** aspects of UX

The firm cannot support all development cost and must focus on a **few** products.

Microsoft Office (at the beginning only available for the Macintosh platform) was instrumental in fostering its sales.

Microsoft & Google: dominate and divide

Focus on **one** strategic layer
(Windows, Search)

They **create** competition to let others **innovate** in all remaining layers
(hardware, web…)

1985: Bill Gates begs Apple to consider licensing the Macintosh: “Apple must make Macintosh a standard”.

1996: “If we had licensed earlier, we would be the Microsoft of today” (Apple executive VP Ian W. Diery)

The same year, Apple reports $740 m loss.

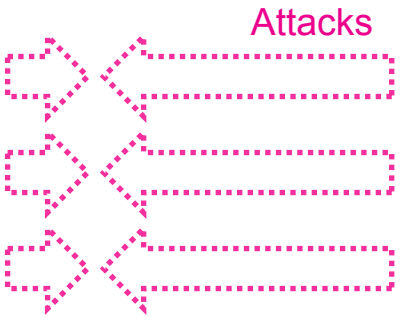
Differences in business models explain why Google and Apple compete

Apple

Car dealer
Apple sells "*great* products".

Differentiation: strives on selecting the best technologies available (Google's when they're the best).

"I've always wanted to own the […] technology in everything I do"
Steve Jobs[1]



Google

Road Toll
Monetises web streams via ads.

Volume: an Internet that is more open increases the traffic, which increases Google's revenues.

"[We don't want] a future with one man, one company, one carrier"
Vic Gundotra, Google VP, Engineering[2]

Freely adapted from a comment by Dominique de Vito on affordance.info

[1] BusinessWeek Online, Oct. 12, 2004
[2] Google I/O 2010

Worst-case scenario: How could Android kill iOS?

Technological value

Android benefits from **open innovation**.

Apple's **walled garden** prevents others from innovating in input method, hardware…

Swype, an alternative input method replacing the Android keyboard

User base

Android supports a **variety** of devices.

Only Apple products can use iOS.

Ford, GM announced a line of "Android cars"

Complementary goods

Android Market fosters developers' **freedom**.

App Store approval process is not **flexible**.

Developers' opinion: Android best in the long term[1]

Apple's vertical integration **prevents** partnerships: why would Apple let others compete with one of its layer?

[1] Appcelerator study

What are Apple's main short-term risks?

Product

Apple's strategy is a **limited** number of high quality products.

If a products had to be **recalled**, it would dramatically impact the brand.

Heating issue in Apple III released in 1980, due to Steve Jobs' insistence that the computer should have no fans.

iPhone 4 antenna controversy

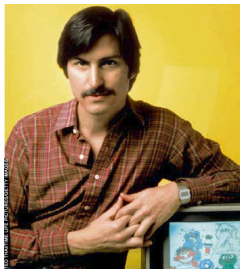
Brand image

Apple's strategy of strict product control can come across as **evil**.

Developer lock-in: Xcode (only IDE[3]), Objective-C (only language)

"We have created for the first time in all history, a garden of pure ideology, where each worker may bloom secure from the pests of contradictory and confusing truths."

Steve Jobs speaking about the App Store?
No. Dictator representing IBM in Apple's famous "1984" ads. [2]



Steve Jobs

Apple's **nightmare** began with Jobs' departure and ended with his return.

Its capacity to **focus** may be significantly impeded without him

"Apple desperately needs a great day-to-day manager, visionary, leader and politician. The only person who's qualified to run this company was crucified 2,000 years ago."
Michael Murphy, San Francisco Chronicle, September 11, 1997

[1] BusinessWeek
[2] Apple's Mistake by Paul Graham [3]Integrated Development Environment

Conclusion: happily ever after Apple?

Step #9: you can't afford to make the slightest mistake?

Appendix

1. Glossary
2. Acknowledgements
3. Contact

Glossary

- **Digital Rights Management (DRM)**: technologies used by content owners to control usage of contents
- **DX** (D5, D8…): The Wall Street Journal's D: All Things Digital conference
- **Halo effect**: a product (the iPod) has positive effects on our perception of something else (the Apple brand)
- **Moore's law**: "The number of transistors that can be placed inexpensively on an integrated circuit has doubled approximately every two years." (see Wikipedia)
- **IDE**: integrated development environment (see Wikipedia)
- **iOS**: iPhone OS (operating system)
- **SaaS**: Software as a Service (see Wikipedia)
- **Software Development Kit (SDK)**: set of development tools that allows for the creation of applications (from Wikipedia)
- **UI**: user interface
- **UX**: user experience
- **Vendor lock-in**: makes a customer dependent on a vendor for products and services, unable to use another vendor without substantial switching costs (see Wikipedia)
- **WWDC**: Apple WorldWide Developers Conference

Acknowledgements

- Mr. Gilles Dounès (MacPlus)
- Mr. Christophe Laporte (Mac Génération)
- Dr. Christian Chabrerie (Founder and CEO of MobiNear, professor at École Centrale Paris)

- To our faberNovel contributors:
  - Sabrina Distinguin
  - Estelle Specque
  - Matthieu Lecomte
  - Romain Perrier

faberNovel

ideas with legs

Stéphane Distinguin
Founder & CEO
stephane.distinguin@fabernovel.com

Cyril Vart
VP Strategy & Development
cyril.vart@fabernovel.com

Baptiste Benezet
Senior Project Designer
baptiste.benezet@fabernovel.com

Clément Ravouna
Project Analyst
clement.ravouna@fabernovel.com

Johan Ismaël
Project Analyst Assistant
johan.ismael@fabernovel.com

Charles-Axel Dein
Project Analyst Assistant
charles-axel.dein@fabernovel.com

17, rue du faubourg du Temple 75010 Paris
Tél. : +33 1 42 72 20 04
Fax. : +33 1 42 72 20 03
www.fabernovel.com