Mobile is disrupting business

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The impact of Mobile on business

the world is now mobile

Since it has been introduced, how has "mobile" changed the way we do and create business?

- Reach

- Information

- Response

- Empowerment

- Mobile-as-a-Business

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The evolution of mobile

How has this evolution "scaled" through time?

- Today's phones have **more** computing power than NASA had when the first men landed on the moon in 1969.

- After Motorola's StarTAC, phone specs have begun to matter when choosing the "next" phone.

- What computing power are we witnessing today?

iPhone evolution

- **iPhone, iPhone 3g**: 412 Mhz CPU - 256 Mb RAM (2007, 2008)

  - 320 x 480 pixels, 3.5 inches (~165 ppi pixel density)

- **iPhone 3gs**: 600 Mhz CPU - 256 Mb RAM   (2009)

  - 320 x 480 pixels, 3.5 inches (~165 ppi pixel density)

- **iPhone 4**: 1 Ghz CPU - 512 Mb RAM   (2010)

  - 640 x 960 pixels, 3.5 inches (~330 ppi pixel density)

- **iPhone 4S**: Dual Core 1 Ghz CPU - 512 Mb RAM   (2011)

  - 640 x 960 pixels, 3.5 inches (~330 ppi pixel density)

Smartphones

What does Smartphone mean?

What about these?

What about these?

2002
104 Mhz

2005
150 Mhz

Personal Digital (or Data) Assistant

Modern smartphones

The different fate of the first generation Smartphone giants

BlackBerry's problem

BlackBerry

- BlackBerry witnessed a huge success in the last 15 years.

- Before the iPhone, almost 1 in 2 phones in the US was a BB.

  - Nokia had the same statistics, but for Europe.

- When the market started to change, BlackBerry thought that the new trend of Smartphone was not going to concern its market (huge) niche of Business phones.

- BlackBerry created a few touch phones, which did not sell too well.

  - e.g. BlackBerry Torch

- Two BB CEOs have already resigned since this crisis.

Nokia

- Nokia has been the biggest phone manufacturer in the world.

  - It still retains its title in developing countries.

- The Symbian operating system was the **most stable** system ever put in a phone (did you ever have a phone crash?)

- Nokia N series was its last attempt to fight modern smartphones

  - while the E series kept aiming to fight BlackBerry, the "enemy"

- Nokia is still recognized as a first class manufacturer for its golden age phones, not the last models.

- Failing to upgrade the Symbian operating system to its competitors standards, Nokia drops the SW and allies with Microsoft.

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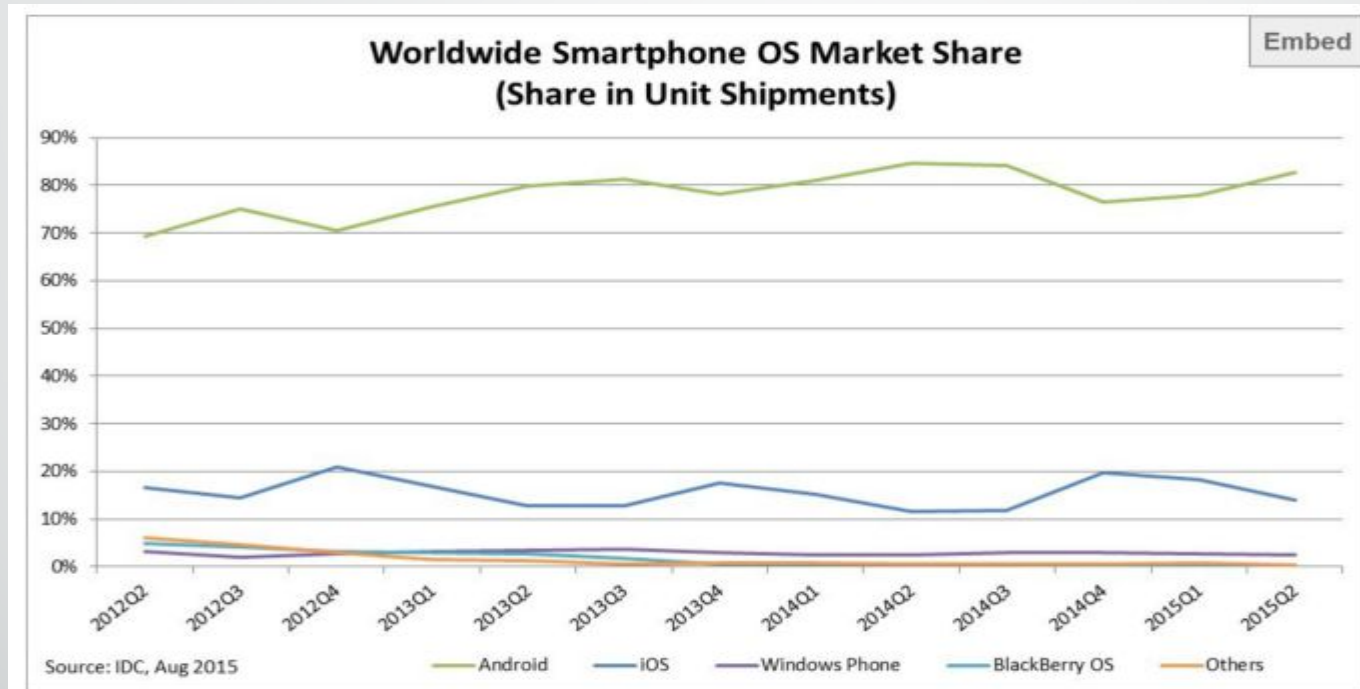Università Cattaneo

iOS/iPhone evolution

Android evolution

The phone market

**Worldwide Smartphone OS Market Share
(Share in Unit Shipments)**

Source: IDC, Aug 2015

Period	Android	iOS	Windows Phone	BlackBerry OS	Others
2015Q2	82.8%	13.9%	2.6%	0.3%	0.4%
2014Q2	84.8%	11.6%	2.5%	0.5%	0.7%
2013Q2	79.8%	12.9%	3.4%	2.8%	1.2%
2012Q2	69.3%	16.6%	3.1%	4.9%	6.1%

Source: IDC, Aug 2015

Apple vs. Google: learning from the best and most different approaches

- Apple and Google compete in the same business, sharing the same market audience.

- **Apple is a manufacturer, Google isn't.**

- **Apple closeness vs. Google openness: who is winning?**

- Different planning approaches.

- Google has a problem

  - Fragmentation

- Google has another problem (2)

  - The Android Market

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Apple is a manufacturer, Google is not (or is it?)

- **Apple controls the whole supply chain**, from the raw material procurement process, to the user's purchase in the stores.

- **Google is only in control of the Android development**: it controls how the hardware requirements are going to change from version to version, but the industrialization and selling processes are entirely dependent on the manufacturers strategies.

- What conclusions can be drawn from these two different approaches?

- Pros and cons on either sides.

Apple closeness and Google openness

- Apple dictates strict conditions to developers who want to publish applications on its platform (iTunes)

- **Apple iOS remains inaccessible**. Court rulings have declared legal the iOS "jailbreaking", but Apple updates made increasingly difficult to achieve it.

- **Google is by far the easiest system to start publishing applications with**.

- Unofficial versions of Android OS are created daily, to exploit phone's "hidden features" manufacturers don't release to the public.

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The Marketplaces

The market platforms

- Apple

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Apple App Store

The market platforms

- Google

Play Store

Microsoft

The market platforms

- **Each market, while similar in UI (user interface) and design, serves different purposes and products, that identify the different ecosystem these platform are trying to integrate.**

- The market platforms are integration agents.

- They integrate products, offering a unified user experience.

- **They integrate revenue sources (PaaS vs. SaaS).**

- They integrate the company, and serve as the company's showcase to the public.

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Google Play

- Formerly known as Android Market. Why the change? Because has a big, BIG problem with its Market.

- Very open, also to malware.

- Too many "bad" Apps.

- Android as a destination platform for Apple's haters?

- Android average users don't want to pay for Apps.

  - Fragmentation + Low revenue = unhappy developers

- Google adopted its revenue model (advertising) as the main revenue model for Apps. Is it working?

  - Yes, but…

- …Advertising is killing android devices' batteries.

- ROVIO, Angry Birds developer, example.

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Mobile as a set-piece for a Business model
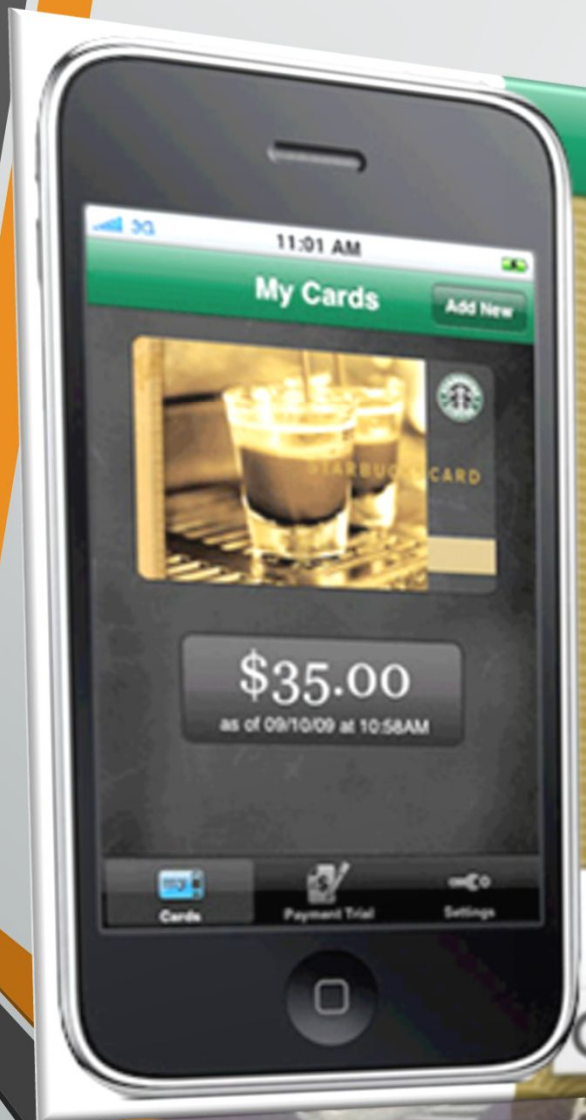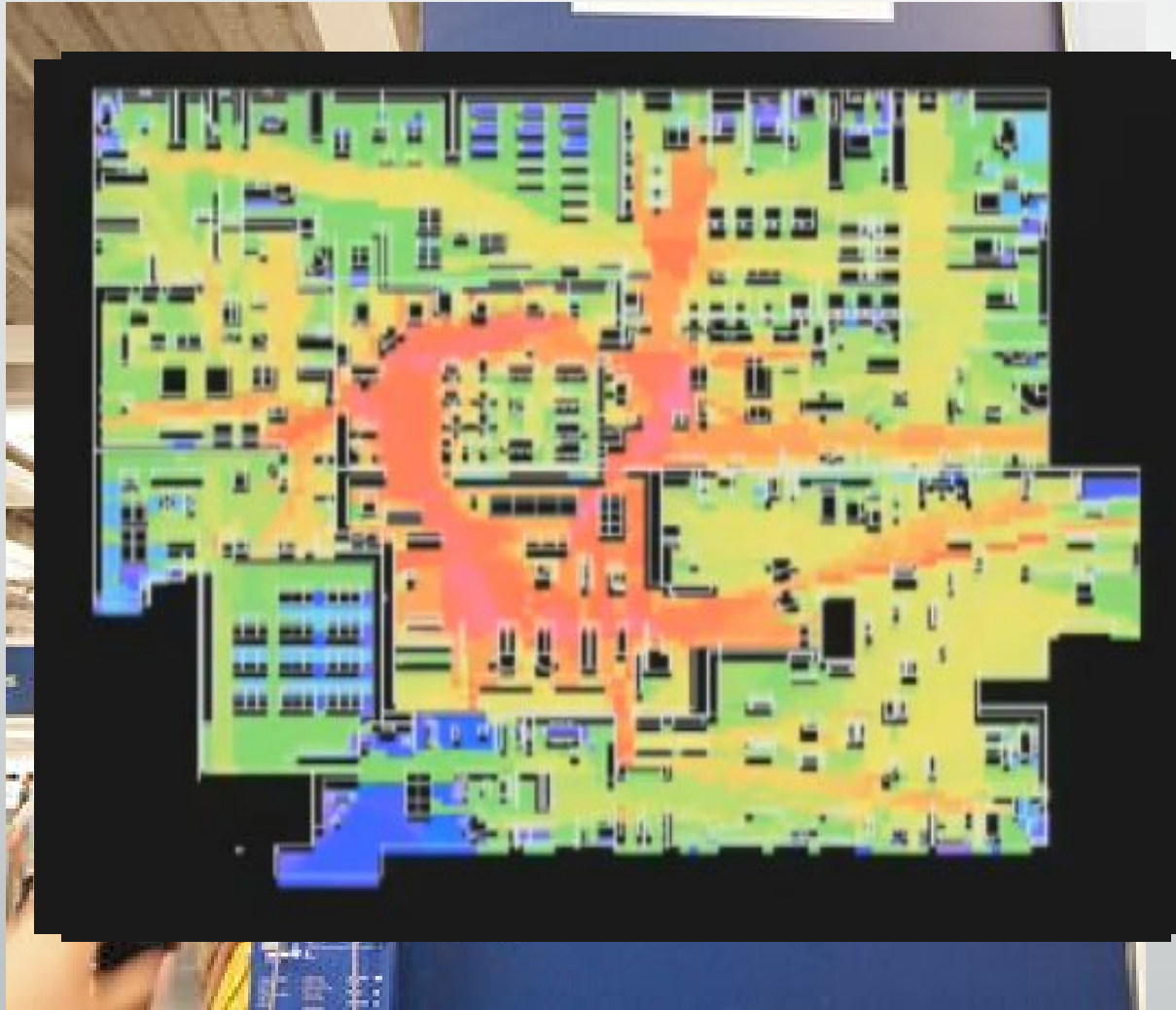
Mobile revenue models

Mobile Revenue Models

- A **Free** application is available to the user at no cost, and

  usually lives off another revenue source (e.g. advertising)

- A **Pay-for-download** model makes you do an upfront

  purchase in order an app

- What about the **freemium** revenue model?

Born To Be Freemium

- Freemium applications have no upfront cost to be downloaded (freely available) and offer **in-app** features that users might want and for which they have to pay for.

- **But there is NOT «one ring to rule them all».**

 Vs. Vs.

Freemium #1

- Ruzzle

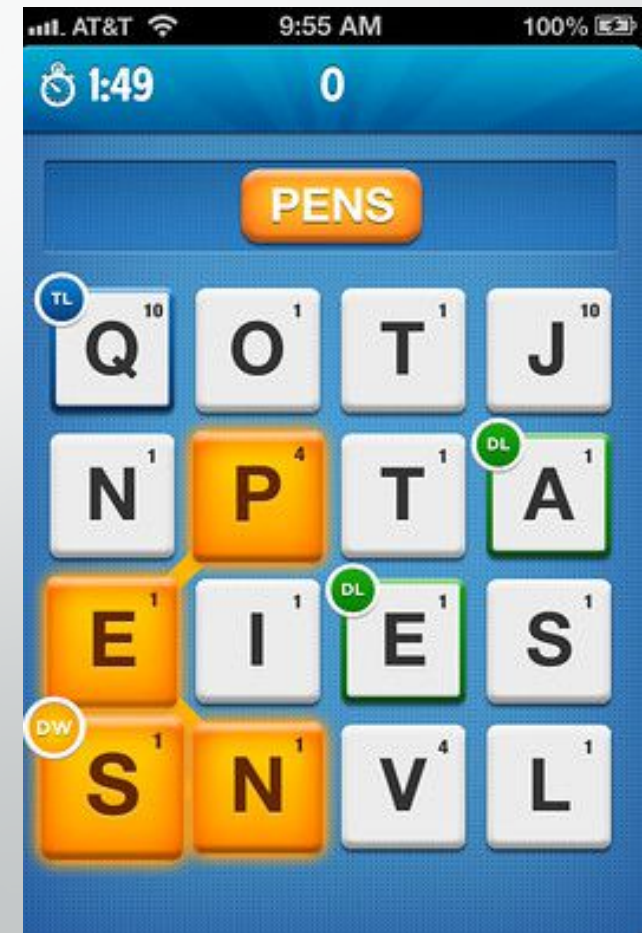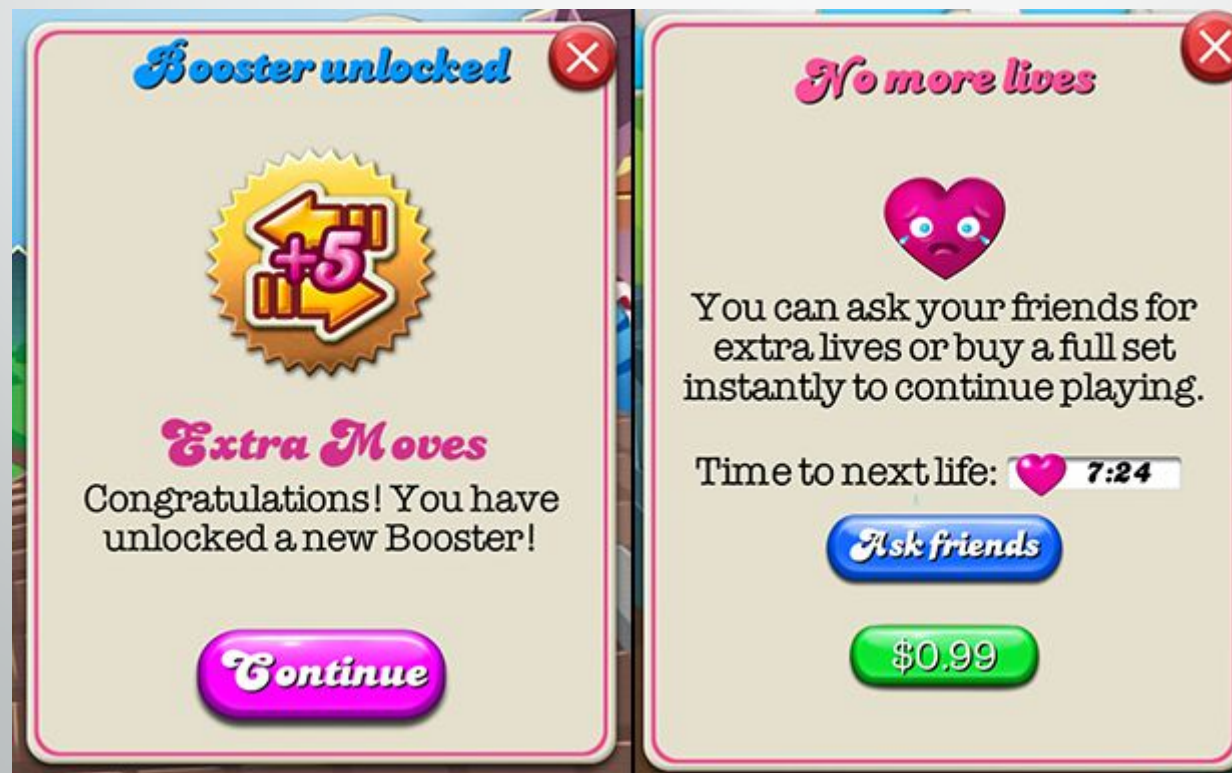- Pay to have **non**-core features

- Increase fidelization

Freemium #2

- Candy Crush Saga
- **Pay-to-win Vs. Pay-to-play**
- Uses **addicting** game mechanics to push users into purchase

Freemium #3

- Angry Birds (classic, seasons, space, star wars)
- Pay-to-win (the mighty eagle, space eagle, millennium falcon)
- Paid HD version (with no ads)

Mobile strategy

- Web-first vs. Mobile-first

- **Mobile-First Forces You to Focus on Core Content and Functionality**

- When you are dealing with a screen-size that is 320px X 480px or less you have to rethink and design the layout of your traditional desktop website layout. You only have enough space on the screen for the most important and key parts of your website. So if something isn't absolutely necessary for your clients, then ditch it for your mobile-first design!

- Can you name a bad mobile example?

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- **Screen Sizes Abound in the Mobile Web**

- These days you can't afford to adapt your website to the size and layout of every new device that comes out. Who knows when the next iPhone will change screen sizes or resolutions, or when the hottest new tablet is released with completely new dimensions. This is why your Mobile-First design must be fluid, not adaptive.

- New Capabilities with the Mobile Web

- **When you are designing a desktop based design you have to design it with the knowledge that many of your users may be using old browsers or aging hardware that can't support new and exciting technologies**. However with Mobile devices because users are constantly upgrading their phones and changing plans, there are huge possibilities to utilize new and exciting technologies in your Mobile website.

- Some of these things include:

- **Location information from an onboard GPS**

- Multi-touch interaction from different gestures and actions

- **Bluetooth device connection**

- Modern browser and hardware acceleration

- Device tilt and movement information from an accelerometer

- **Audio and Video input from onboard microphone and camera**

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- **Progressive Enhancement**

- The main reason we have a website is to give valuable content to our users.   Progressive enhancement focuses on the content first, then the presentation and styling, and finally the scripting and animation.

- In Mobile-First design, progressive enhancement applies this concept by **delivering more and more styling as the device-size and/or the connection quality increases**. **First** off we deliver the content, that is, the words, images and forms that are vital to the experience and success of your users. **Next we add some styling elements** in CSS that beautify our website. We take the otherwise boring layout of the plain content and turn it into an amazing user-experience. **After that we add extra touches and features via Javascript**. These scripts are not essential to the user, but they do provide some added value in their use of the website.

Snapchat

- Snapchat

- Mobile-first and only

- Teenager phenomena

- Timed messages, pictures and video

- Facebook copied it

Summly

- News aggregator
- Made by a 17-year-old
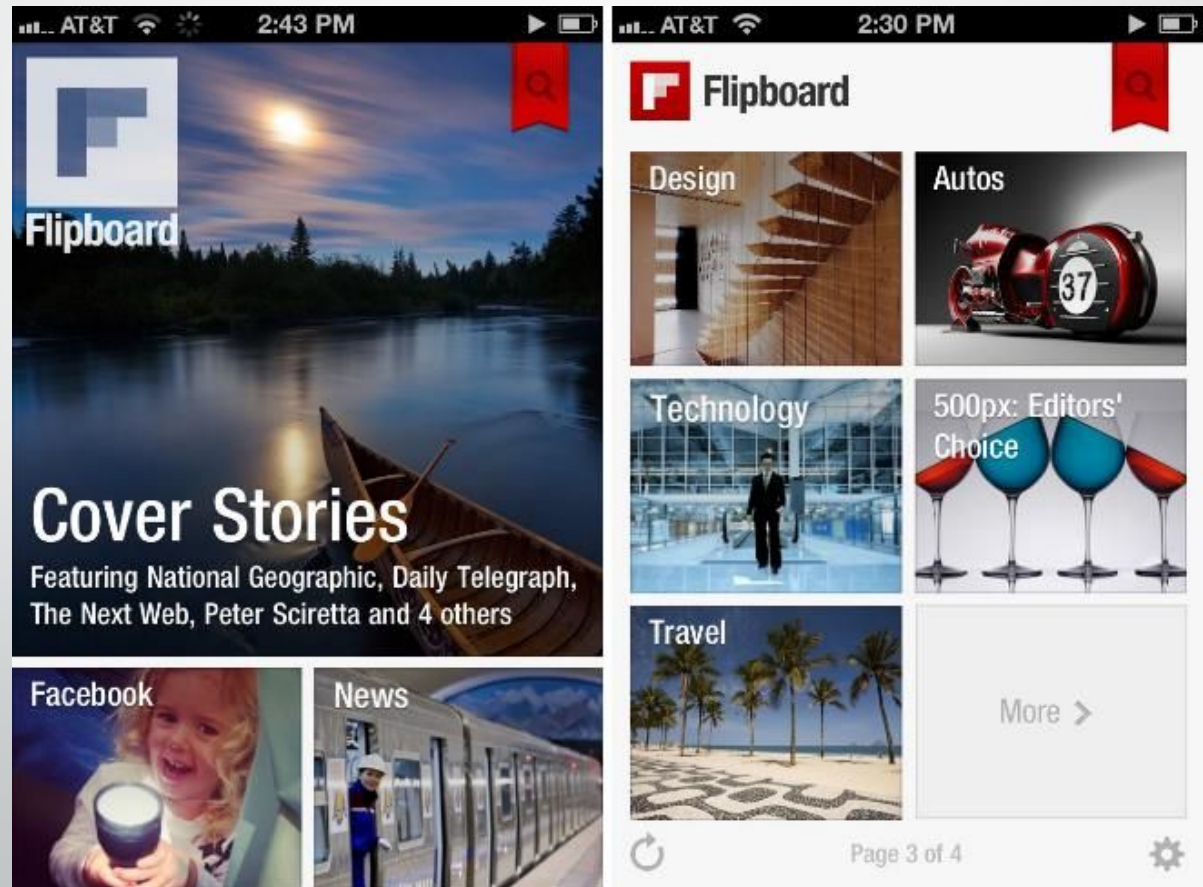- Acquired for 30.000.000 $
- By Yahoo

Pulse

- News aggregator
- Mobile-first
- Now also web
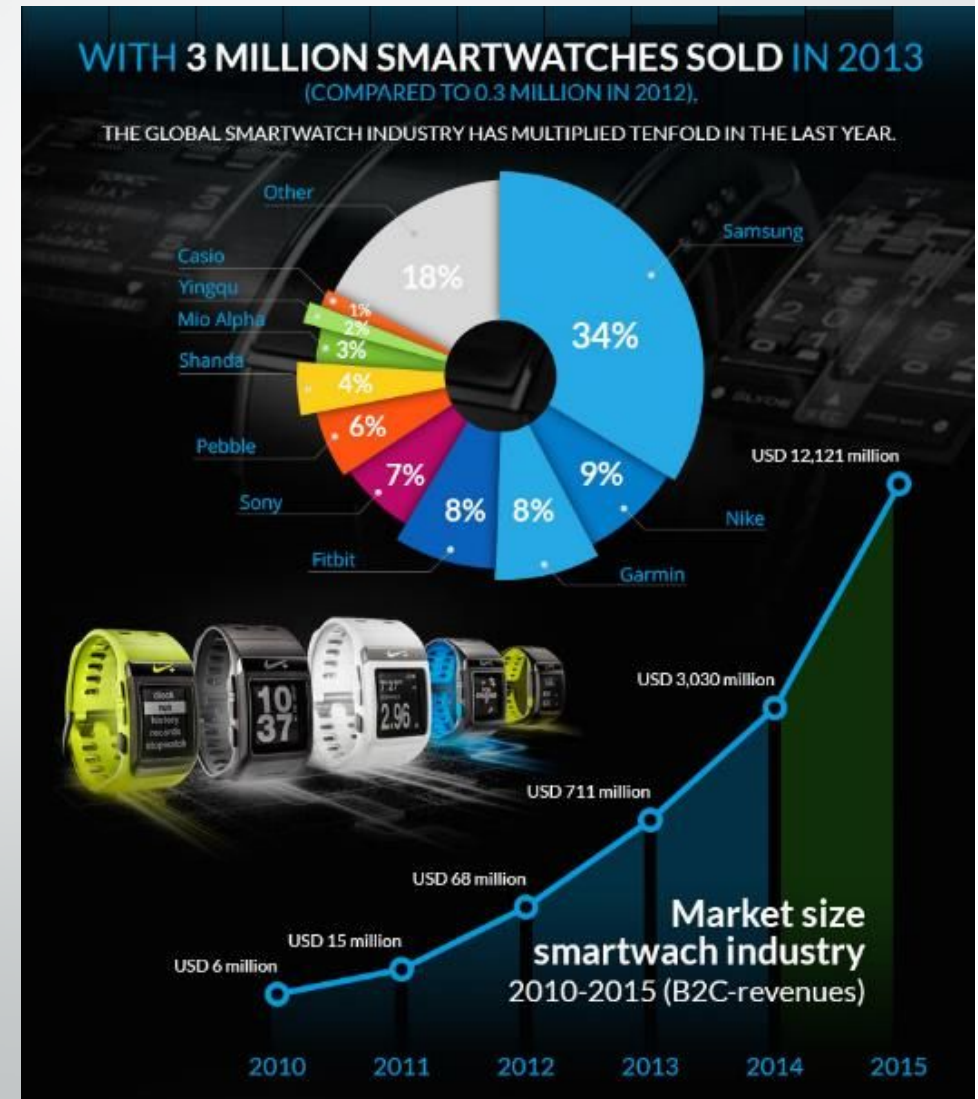- It got acquired
- For 90.000.000 $

Flipboard

- News aggregator

- Why so many news apps out there?

- What other businesses are usually mobile-first?

- Is mobile-first always better?

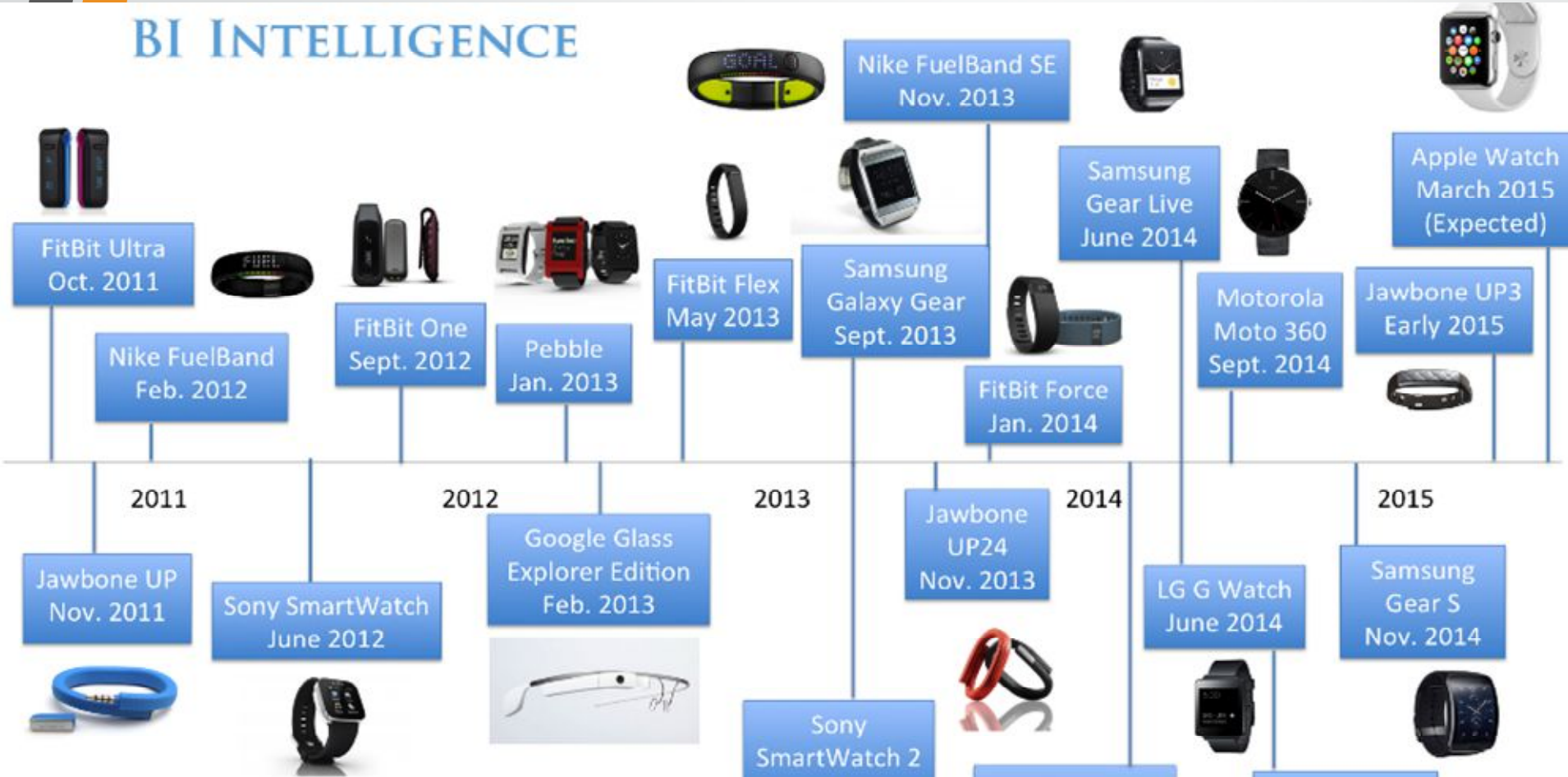LIUC
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Current and future mobile platforms

Smart Watches

- A growing phenomenon
- Several competitors
- Different OS
- Different purposes

Several models

Reshaping task time

30 minutes	3 minutes	30 seconds	3 seconds
PCs/Laptops	Tablets	Mobiles	Smartwatches
Planned use	Planned & Unplanned	Unplanned use	Unplanned use
Sitting	Sitting / Standing	Standing / Walking	Walking
Booked time	Sudden time	In Hurry	Alerts
Creating info	Modifying Info	Consuming Info	Notification of Info
Focussed task	Multi Tasking	Multi Tasking	Multi Tasking
Emails, Work, Presentations, Coding	Social Media, Video, Music	Calls, SMS, OTT	Information Recording, Alerts, Notifications, Calls and maybe Health monitoring

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Virtual reality

Annual Unit Sales for Consumer Virtual Reality Devices
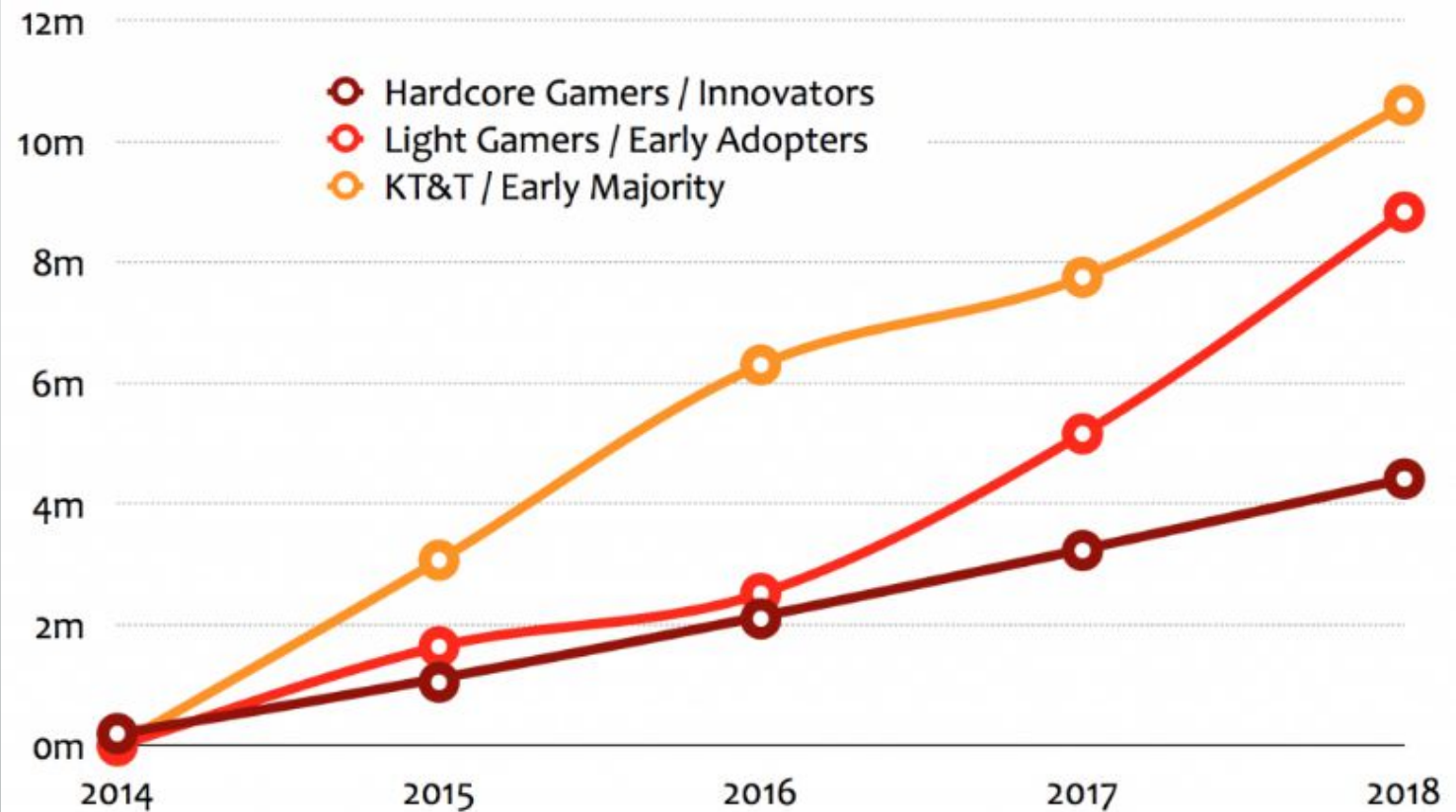
Hardware categories

- **HMD – Integrated**: A virtual reality head-mounted display with the screen integrated into the unit. This segment (obviously) includes Oculus VR, as well as companies such as VRelia, Gameface Labs (classified as a HMC – head mounted console), Avegant, Sony and ANTVR.

- **HMD – With Mobile Device:** A virtual reality head-mounted display using a third-party mobile device as the screen. Companies in this segment include Durovis, Seebright, Altergaze, Vrizzmo and Samsung.

- **Controller – Hand Device / Glove / Body Unit**: An input device using hands and/or body movement for tracking via sensors. PrioVR, STEM, Control VR and Leap Motion are all included in this element of the market.

- **Controller – Treadmill / Foot Control:** An input device that tracks leg/foot movements. In this category we include Virtuix Omni, InfinAdeck, the Cyberith Virtualizer and Stompz.

- **Controller – Haptics:** An input device for hands and body that also provides tactile feedback by force or vibration. The KOR-FX Gaming Vest, iMotion and the Reactive Grip are three of the products included here.

- **3D Camera**: A video or image recording device that captures 3D stereoscopic views. Jaunt, Giroptic and Matterport are within this grouping.

- **End-to-End Platform:** A company that provides HMD systems coupled with input devices and motion capture. This category brings together companies that are creating VR experiences encompassing HMDs, input devices, games and other elements. Survios and VRCade are two examples.

- **Misc**: Products not fitting into other categories. We'll keep a close eye on this category to see if it's worth keeping, but in the meantime we've allocated Petal, a VR fan into it. This company was recently unsuccessful with Kickstarter funding but we've kept it on the radar.

http://www.kzero.co.uk/blog/virtual-reality-hardware-radar-for-q3-2014/

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