POLITÉCNICA

UVIC UNIVERSITAT DE VIC

Opportunities and Challenges in the Mobile Media Ecosystem

Source: indigo-moogle.deviantart.com

mCommunication

Mesa 2. Consumo y contenidos móviles digitales

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Overview

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- (Vertical) **Market segments**:
  - Mobile social networks
  - Mobile music
  - Mobile television / video
  - Mobile gaming
  - Others: m-books / m-commerce / m-education / ...
- (Horizontal) **Common issues**:
  - Devices
  - Apps and browsers
  - Business models / value chain disintermediation / ...
  - Privacy / use of personal information
- Some **conclusions** – implications

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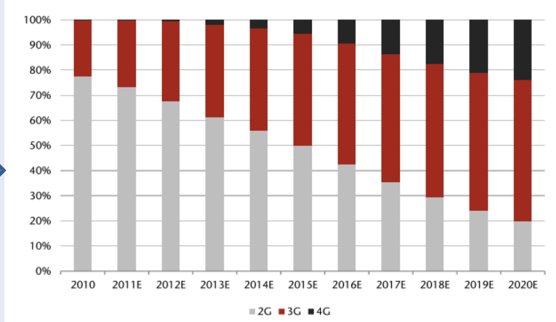
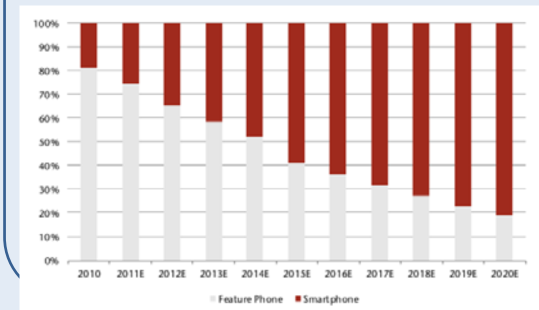
BACKGROUND

- Increasing **availability** (and affordability) of **mobile broadband**
  - In 2015 half of the subscriber base will be in 3G/**4G**, and 80% in 2020 (27% in 2011)
  - 7.6 billion mobile users by 2020 (5.4 billion in 2011). Mobile subscribers per 100 inhabitants: **99%**.



Source: Jefferies (2011)



- Increasing **availability** (and affordability) of **smartphones**
  - In 2020 **81%** of phones sold globally will be smartphones (2.5 billion) from 26% in 2011 (400 million)
  - 595 million **tablets** in 2020 (70 million in 2011)

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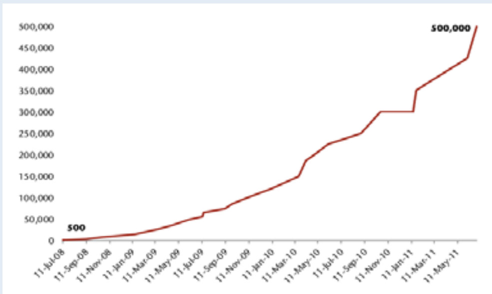
THE MOBILE PLATFORMS
Apple, Google and the rise of the "apps" economy

- In three years (2008-2011) the **number of apps** available for download in the Apple platform has grown from 500 to 500,000
- App stores have changed the **value chain of software** (distribution and pricing), and also the industries of music, books, games, …
- How to **control** a platform? **Proprietary** vs. "**open** but not open". The **gateway** roles (customers, developers, advertisers, …)



Source: Apple (2011)

➔ App stores vs. mobile web **browsers**

➔ Mobile platforms as **multi-sided markets**

➔ **Market power** with regard to developers, advertisers and **consumers**

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MOBILE SOCIAL NETWORKS
Facebook: the biggest mobile social network is a social network on a mobile

- Monthly **minutes spent on social networking** sites grew 50% in 2011
- Total monthly **unique visitors** was over 200 million in 2011
- The raise of the **hyper-connected user**
- Targeted / **behavioural advertising** as the main business model based on network effects and increase of users' time on social networks

➔ **"Digital shadows"** of users, the challenges to privacy / personal information. Differences EU vs USA

FACEBOOK
Founder: Mark Zuckerberg
Year of launch: 2004
Headquarters : Palo Alto, California

Indicator	2011	2010
Yearly revenues	3.711 M$	1.974 M$
Annual revenues growth	88%	
Number of users (millions)	845	350
Annual users growth	140%	
Growth rate	8,39 users per second	
Daily reach (% of internet users that visit per day)	40 %	30%
Revenues per user ($)	4,39	5,64
Type of information	Videos, images, text	
Field	Social	
Range of countries	Worldwide (except China)	

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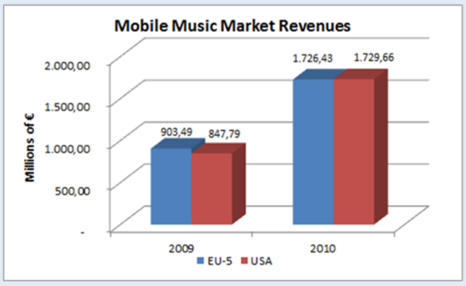
MOBILE MUSIC
From ringtones to full tracks in the cloud

- Up to 2005: **ringtones**
- From 2005: **full tracks** (the music store concept, Rhapsody)
- From 2008: **streaming** (Spotify)
- From 2011: **cloud** (Amazon, Google, ...)

- **Ringtones** now in **crisis**
- Full tracks expected to be bigger than ringtones in a **future-linear way of thinking, never happened**
- Still today we mainly use **side-loading** (i.e. iTunes)



Source: Netsize (2009, 2010)

➔ Digital music has become **mobile on its own** "floating between PCs, portable players, home multimedia, video game consoles, car stereo, the cloud" (Fitchard,2011), consumers forced to use clunky applications for DRM-free tracks ... room for the **smartphone?** 360º **music management?**

➔ Fixed-mobile **platform convergence**?

➔ **Cloud / streaming** impact on **network performance**? Investments, network neutrality and spectrum management

➔ **Data roaming**

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MOBILE GAMING
Testing new technologies and business models

Market segment	*2007 (B €)*	*2008 (B €)*	*2013 (B €)*
TV advertising	128	129	129
Internet advertising	40	46	67
Recorded music	25	23	20
Video games (total)	33	40	56
Console games	19	23	31
Online games	5.3	6.2	11
Mobile gaming	**2.1 – 4.1**	**2.6 – 6**	**4.8 – 12**

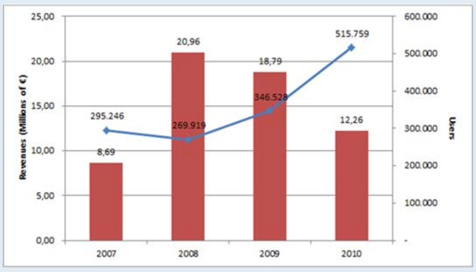
Source: own compilation of industry data

- Before 2002 **games embedded** in the handset
- Up to 2007: **game portals**
- **Dramatic change** in 2007 with "first wave of **smartphones**"
- From 2008, no longer it is a delayed-in-time "poor brother" of console and pc games, but a **distinct and exciting experience** and a new wide ecosystem (Angry Birds)

➔ Wide **demographics**, **ubiquity**, personal, social and **context-aware**
➔ Results from competition between platforms? **Market structure**?
➔ Innovators and mobile industry in **Europe**, but **trailing behind** in platforms
➔ Niche markets – **serious games**
➔ **Consumer protection**: content rating, childhood protection
➔ Innovations in business models: **in-apps revenues**
➔ **Data roaming**

MOBILE TELEVISION / VIDEO
Tablets, at last the unexpected game changers

Source: CMT (2011)



- **Standardisation support** since 2007 (DVB-H), currently in a "**limbo**"
- Commercial launches using major events (olympics, football)
- Some **modest success stories**: Japan and Korea
- **Notorious failures** (BBC 2008) and **limited response** from EU markets (≈ 5 million users)
- "**Impasse**" situation with **divergent technological options**: broadcasting vs mobile comms

➔ Lack of perceived **value and usefulness** from users on a mobile handset while on-the-go
➔ **Unexpected behaviour** of users: at home, after prime-time, long time view, ...
➔ Internet-enabled mobile devices (**tablets**)
➔ Viewers migrating from traditional linear schedules to **on-demand viewing**
➔ **Free-to-air** (advertising-based) vs. pay-per-view
➔ Video streaming impact on **network performance** (traffic x70 until 2018)? Off-loading, Investments, network neutrality and spectrum management
➔ **Data roaming**
➔ **Double regulation** (audiovisual media and telecomms)

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MOBILE PUBLISHING

Along the music industry path?

➔ Digitalization. Phase I

- **Decline** on physical spending, not compensated by digital growth (eReaders / eBooks)
- Prosumers
- **Self-publishing**

➔ Digitalization. Phase II

- **Virtualization** (dematerialization / cloud services)
- The saviours ("**cannibalizing** the old industry): proprietary/"open but not open" devices and open formats

➔ Conclusion: Digital transformation of the book industry **won't stop** – Potential **US** domination

For discussion: **extreme protection** (the "cultural argument") vs. **radical policies** (funding digital libraries, public procurement) vs. **usual** innovation **policies** vs. **shy** legislative **initiatives** (out-of-commerce, orphan works)

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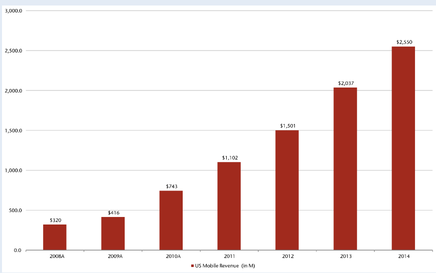
MOBILE ADVERTISING

The ultimate mass market ad platform

- Mobile marketing still **nascent**, less than 2% of total digital ad revenue, less than 1% of total ad spending and less than 1% of global mobile revenues
- As the number of users grow and the time spend on the mobile device grows, **marketers will follow**
- Advantages:
  - Scale
  - Reach
  - **Targetability**
  - Engagement
  - Analytics
- By 2020 mobile will be the **dominant** online ad market segment
- **Google and Facebook** dominant also in the mobile market?
- Ads for everyone in the ecosystem?



US mobile marketing revenue (M$). Source: eMarketer (2011)

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MOBILE MARKET SEGMENTS

Summary

Market segment	2007 (B€)	2008 (B€)	2012-2013 (B€)
Mobile ad (text-pictures)			1 - 2
Mobile ad (targeted search)			**3,9 – 5,8**
Mobile ad (tv based)			1 – 4,3
Mobile ad (total)	0,6 - 1	1 - 2	4 – 8,7
Mobile gaming	2,1 – 4,1	2,6 - 5	4,8 – 9,7
Mobile music (total)	6 – 6,5	8,8	12,8
Mobile tv (total)	0,7 – 1	1	2 - 8,7
Mobile social networks and UGC	0,4	1,3	7,4 – 8,2
Mobile app stores	**-**	**5**	**16**

Source: Feijoo et al (IPTS, 2009)

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DEVICES

Their increasing relevance in the ecosystem

➔ Which will be **next**?

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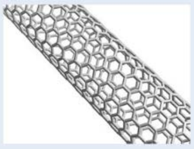
TECHNOLOGICAL DISRUPTIONS
From batteries and displays to new interactions

Source: panel of mobile content and applications experts (IPTS workshop 2009)

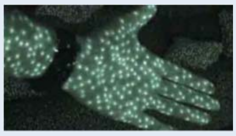
Relevance

1. **LTE-4G**
2. **Cognitive technologies**
3. Artificial intelligence
4. Internet of things
5. New user interfaces
6. Location awareness of presence
7. Semantic structured knowledge
8. Cloud computing
9. Augmented reality – 3D
10. Mobile P2P – Mesh networks



Batteries

Motion sensing



OLEDs

Pico projectors

Real time rendering

➔ Mobile as the tool to **bridge** the **real** and **virtual worlds**

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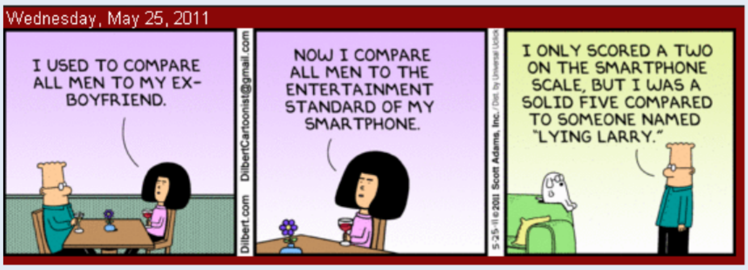
MOBILE MEDIA IN OUR DIGITAL LIVES



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➔ Ubiquitous ultra-broadband

➔ New devices and disruptive technologies

➔ Impact of cloud / video services in network performance

➔ App stores vs. mobile web browsers

➔ New forms of market power

➔ Business models different from advertising

➔ Context-awareness

➔ Response to (an excess of) targeted ads

➔ Use of personal information

➔ User expectations still unfulfilled

➔ **Unexpected behaviours**

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