Opportunities and Challenges of Mobile Social Networks

Workshop of the MASELTOV project

Mobile services for immigrant people: learning, information, and community building for employment and integration

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BACKGROUND (I)

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%.

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)
BACKGROUND (II)

Apple, Google and the rise of the platforms and 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 (April 2012 -> 600,000)
- 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, ...)

- App stores vs. mobile web browsers
- Mobile platforms as multi-sided markets
- Market power with regard to developers, advertisers and consumers

MOBILE MEDIA

Summary

<table>
<thead>
<tr>
<th>Market segment</th>
<th>2011 (B$)</th>
<th>2012E (B$)</th>
<th>Growth y-y (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data plans</td>
<td>76</td>
<td>83</td>
<td>9.5</td>
</tr>
<tr>
<td>Apps</td>
<td>20¹</td>
<td>26¹</td>
<td>31</td>
</tr>
<tr>
<td>Social networking</td>
<td>15</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Games</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>In-game items</td>
<td>2.1</td>
<td>2.5</td>
<td>18</td>
</tr>
<tr>
<td>Music</td>
<td>-</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>Video</td>
<td>2.9⁴</td>
<td>3.6⁵</td>
<td>24</td>
</tr>
<tr>
<td>Total advertisers spending</td>
<td>6.3</td>
<td>11.6</td>
<td>85</td>
</tr>
<tr>
<td>Total consumer spending</td>
<td>122</td>
<td>138</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>128</td>
<td>150</td>
<td>17</td>
</tr>
</tbody>
</table>

(1) 32 billion apps downloaded in 2012
(2) 23 billion apps downloaded in 2011
(3) 280 billion videos watched on mobile devices in 2012
(4) 108 billion videos watched on mobile devices in 2011
MOBILE SOCIAL NETWORKS (I)
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 rise of the hyper-connected user, broadcast of intentions and always-on
- 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. Privacy threats. Differences EU vs USA

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly revenues</td>
<td>3,711 M$</td>
<td>1,974 M$</td>
</tr>
<tr>
<td>Annual revenues growth</td>
<td>88%</td>
<td></td>
</tr>
<tr>
<td>Number of users (millions)</td>
<td>845</td>
<td>350</td>
</tr>
<tr>
<td>Annual users growth</td>
<td>140%</td>
<td></td>
</tr>
<tr>
<td>Growth rate</td>
<td>8,39 users per second</td>
<td></td>
</tr>
<tr>
<td>Daily reach (% of internet users that visit per day)</td>
<td>40 %</td>
<td>30 %</td>
</tr>
<tr>
<td>Revenues per user ($)</td>
<td>4,39</td>
<td>5,64</td>
</tr>
<tr>
<td>Type of information</td>
<td>Videos, images, text</td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Social</td>
<td></td>
</tr>
<tr>
<td>Range of countries</td>
<td>Worldwide (exc. China)</td>
<td></td>
</tr>
</tbody>
</table>

MOBILE SOCIAL NETWORKS (II)
The new and smaller social networks

- Path (“share the journal of your life”), a social network only for smartphones, has a maximum of 150 friends (the Dunbar number). It has about one million active users (2012). No subgrouping and no privacy settings
- According to Dunbar: 150 is an outer boundary of friends, 50 is the limit for trusted friends, 15 for good friends, and 5 for best friends. Average number of friends in Facebook is 245 (Pew Research Centre, 2012)
- FamilyLeaf is restricted to family members and requires a “gatekeeper”, mainly designed for photo sharing
- Pair, also only for smartphones, allows only one other person, and allows for drawing together, sharing a to-do list or location, and includes “thumbkissing”. It has got 100.000 users in just seven days.

- Sharing requires intimacy
- The relevance of contextual integrity (H. Nissembaum, 2010): informational rules attached to the personal information transaction.
MOBILE SOCIAL NETWORKS (III)
Twitter: social real-time information

- The power of microblogging: 140 million active users (2012) and 340 million tweets daily
- Unregistered users can read the tweets
- Followers, hashtags and trending topics
- Increasing relevance in the social and political domain (Arab spring, US elections, ...).
- Growth in regions other than EU and US.

- Level of digital literacy to use these tools? (specific apps to send tweets on a mobile, avoiding SMS, ...)

### Table: Visitation to Twitter.com by Global Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Jun-09</th>
<th>Jun-10</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worldwide</td>
<td>44,520</td>
<td>92,874</td>
<td>109</td>
</tr>
<tr>
<td>Latin America</td>
<td>3,782</td>
<td>15,377</td>
<td>305</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>7,324</td>
<td>25,121</td>
<td>240</td>
</tr>
<tr>
<td>Middle East-Africa</td>
<td>2,855</td>
<td>4,597</td>
<td>142</td>
</tr>
<tr>
<td>Europe</td>
<td>10,959</td>
<td>22,519</td>
<td>108</td>
</tr>
<tr>
<td>North America</td>
<td>20,380</td>
<td>24,870</td>
<td>22</td>
</tr>
</tbody>
</table>

MOBILE SOCIAL NETWORKS (IV)
Gaming the system, while testing new technologies and business models

- 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, Zynga-FarmVille, ...)

- Wide demographics, ubiquity, personal, social and context-aware
- Innovations in business models: in-apps revenues
- Niche markets – the education “connection” – serious games
- Consumer protection: content rating, childhood protection
- Data roaming
MOBILE SOCIAL NETWORKS (V)
Foursquare: checking in the real world with virtual information

- Mobile social network based on location with 20 million users (2012) and more than 3 million check-ins daily
- Check-ins, badges and mayors
- Competing with friends while leaving tips and to-do lists
- “Groupon” (discounts / coupons) on a mobile
- The “discovery” experience

- mcommerce and mpayment (Google Wallet’s, PayPal, Barclays PayTag, Verizon Isis, Square, ...). Mobile payments could eliminate the need for consumers to carry cash or credit cards by 2020 (Pew Internet Research, 2012)
- The relevance of location
- More targeted advertising
- The “Please rob me” case ... Privacy by law and / or privacy by design
- Mobile device as the tool to bridge the real and virtual worlds

MOBILE SOCIAL NETWORKS (VI)
Tables, the unexpected game changers in mobile video

- 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). The increasing relevance of devices
- Viewers migrating from traditional linear schedules to on-demand viewing
- Watching TV is also social
- 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
MOBILE SOCIAL NETWORKS (VII)
Linkedin: the access to the professional world

- Trust through “gated-access”
- Interest groups
- Professional networking
- Job opportunities

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly revenues</td>
<td>522 M$</td>
<td>242 M$</td>
</tr>
<tr>
<td>Annual revenue growth</td>
<td>115%</td>
<td></td>
</tr>
<tr>
<td>Number of users (millions)</td>
<td>150</td>
<td>70</td>
</tr>
<tr>
<td>Annual users growth</td>
<td>115%</td>
<td></td>
</tr>
<tr>
<td>Growth rate</td>
<td>2 members per second</td>
<td></td>
</tr>
<tr>
<td>Daily reach (% of internet users that visit per day)</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Revenues per user ($)</td>
<td>3.48</td>
<td>3.46</td>
</tr>
</tbody>
</table>

MOBILE SOCIAL NETWORKS (VIII)
The new informed customer

- Social
- Price comparison
- Barcode scanning
- Shopping lists

- Increasing transparency and competition
- “Crowd power”
MOBILE SOCIAL NETWORKS (IX)
Video-learning on a mobile

- The power of video-sharing
- The rise of the prosumer

Free education
mlearning
Augmented reality
Virtual environments

MOBILE SOCIAL NETWORKS (X)
Networking and sharing research

Mobile Media Ecosystem
MOBILE SOCIAL NETWORKS (XI)
Flirting services: pioneers in success

- Mobile media in our digital lives
- The mobile device is (much more) personal (and private) than a regular Internet connection / desktop

Mobile Media Ecosystem

MOBILE SOCIAL NETWORKS
Summary

User
- Social networking
- Family links
- Professional networking
- Job searching
- Entertainment
- Shopping
- Learning
- Real-time information
- Sex information

Mobile Media Ecosystem
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