MIT Research Lab of Electronics

Digital Media in 2011

Presented by

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Introduction

- Jamyn Edis, VP Emerging Technology @ HBO
- Professor (New Media/Marketing) @ NYU Stern
- Previously strategy consultant, focused on media, technology and communications

- Academic background @ Cambridge University (BA/MA) and Harvard Business School (MBA)
- Find me @ about.me/jamynedis
- Twitter @jamyn
Today’s Agenda

- Industry Trends
  - Connected Devices
  - Apps Everywhere
  - World of the Web
- HBO Overview
- Q&A
So, what’s next for television?
People spend 8 hours a day in front of a screen.

Average Daily Screen Time, US

- TV: 4 hr 24 min (56%)
- PC: 2 hr 35 min (33%)
- Mobile: 50 min (11%)

Source: eMarketer, Accenture analysis
Mediaplan consumption

- Concurrency puts the actual time closer to 6 hours

Average Daily Screen Time, US

- TV: 19% Concurrent
- PC: 43% Concurrent
- Mobile: 22% Concurrent

Source: eMarketer, Accenture analysis
Explosion in web-to-TV connectivity

‘Media hubs’ are only an interim solution, before features become loaded as standard.
Cable technology – STBs with web

- Comcast Spectrum: improved search, VOD apps & social integration
Likely to see disruption in TV that follows the mobile model post-iPhone:

- smart, connected devices
- growing usage of apps
- complemented by browser usage
- next generation input controls
- new media content and format
Need all the moving parts to work...

<table>
<thead>
<tr>
<th>Input Mechanism</th>
<th>Display device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Hardware (e.g. STB)</td>
<td>Transport (e.g. BB, wireless, physical)</td>
</tr>
<tr>
<td>OS / Platform</td>
<td>App Stores and Browser</td>
</tr>
<tr>
<td>Video Content (linear, VOD, i/active)</td>
<td>Other Services (e.g. search, social)</td>
</tr>
</tbody>
</table>

Each constitute a potential ‘failure point’ and also required are the coordination of all backend needs, incl. standard, formats, DRM, authentication, CMS, commerce etc.
So, what’s next for phones and mobile?
Now ‘mobile’ is more than just phones

• From this...to this in just over 20 years...
Smart phones booming

• Phones capable of mobile web and apps dominate

Annual Mobile Device Shipments (Global) 2009-14 CAGR

<table>
<thead>
<tr>
<th>Year</th>
<th>Entry Level handsets</th>
<th>Ultra Low-cost handsets</th>
<th>Feature Phones</th>
<th>Smart Phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>290</td>
<td>123</td>
<td>631</td>
<td>704</td>
</tr>
<tr>
<td>2008</td>
<td>214</td>
<td>153</td>
<td>710</td>
<td>735</td>
</tr>
<tr>
<td>2009</td>
<td>214</td>
<td>245</td>
<td>631</td>
<td>704</td>
</tr>
<tr>
<td>2010</td>
<td>175</td>
<td>182</td>
<td>247</td>
<td>214</td>
</tr>
<tr>
<td>2011</td>
<td>102</td>
<td>181</td>
<td>322</td>
<td>182</td>
</tr>
<tr>
<td>2012</td>
<td>198</td>
<td>198</td>
<td>849</td>
<td>247</td>
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<tr>
<td>2013</td>
<td>194</td>
<td>194</td>
<td>887</td>
<td>322</td>
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<tr>
<td>2014</td>
<td>178</td>
<td>178</td>
<td>919</td>
<td>453</td>
</tr>
</tbody>
</table>

Sources: iSuppli, Accenture analysis
• Despite assertions, Apple does not rule the world
Generational shift in computing...
Smartphone + tablets > PCs
Steve Jobs’ master plan revealed?
How are people getting content?
App attack

Thank you. Ten billion times.
The 10 Billion App Countdown promotion has ended. Please come back to this page later to see who won.
### Historically

<table>
<thead>
<tr>
<th>TV</th>
<th>2011 and Beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Video</td>
</tr>
<tr>
<td>Phone</td>
<td>Voice</td>
</tr>
<tr>
<td>MP3 Player</td>
<td>Music</td>
</tr>
<tr>
<td>Camera</td>
<td>Images</td>
</tr>
<tr>
<td>Credit Card</td>
<td>Payments</td>
</tr>
</tbody>
</table>

Historically, TV, Phone, MP3 Player, Camera, and Credit Card were the new hardware. In 2011 and Beyond, Video, Voice, Music, Images, and Payments are the new hardware.
App store facts & figures

MOBILE APP STORES

Device Manufacturer
- iPhone
- BlackBerry App World
- Ovi
- Samsung
- PlayNow
- LG
- Intel
- ARCHOS
- iPad
- Dell

OS Developer
- Android
- Windows Mobile
- Java
- Google

Operator
- 360
- Verizon
- China Mobile
- Sprint
- Orange
- TIM
- AIRTEL

Independent
- Mobango
- Handmark
- Handster
- Slide Me
- OpnMarket
- Estore
App store facts & figures

**NUMBER OF AVAILABLE APPLICATIONS**

**MARCH 2011 – UNITED STATES**

- **App Store**
  - 3,408 (+53%)
  - 26,771 (+21%)
  - 20,355 (+3%)
  - 29,920 (-10%)
  - 6,363 (+9%)
  - 11,731 (+38%)

- **Distimo**
  - 75,755 (+12%)
  - 333,214 (+6%)

**Free Applications**

**Paid Applications**
TV app stores

Samsung TV Apps

Vizio Internet Apps
Google TV app store

ANDROID MARKET FOR GOOGLE TV
OPEN THIS SUMMER
Console and media hub app stores

X-Box 360 Apps

Boxee Apps
What’s new on the web?
Roll tape...

http://www.youtube.com/watch?v=3SuNx0UrNEo&feature=related
Search – beyond Google
Social media is like teen sex. Everyone wants to do it. Nobody knows how. When it’s finally done there is surprise it’s not better... >>

- Avinash Kaushik - Analytics Evangelist, Google
Social everything...
Social everything...

Social shopping

Social gaming
Content and brand ‘check ins’
Implications for the media industry...

**Consumer**
- How people **search/discover**
  - e.g. social recommendations (Twitter, Jinni, Miso)
- How people **view content**
  - e.g. group viewing (ESPN/X-Box, Epix HD)
- How people **share and buy media**
  - e.g. commerce, clips, gifts (Facebook, Boxee, iTunes)

**Enterprise**
- How to enable the above (e.g. **metadata**, DRM, authentication, asset management etc.)
- Impact to **brand control vs. targeted marketing**
- **Data, CRM, privacy** implications
- Fundamental **shift in business model, technology, culture**
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TV Everywhere – HBO GO
HBO GO goes mobile

• Summer 2011
• iPad, iPhone, Android
• National marketing campaign
• 1,400 hours of content – TV and movies
• Authenticated, TV Everywhere product
• #1 on iTunes
Affiliate mobile – Xfinity iPad app with HBO
HBO GO extras – e.g. Game of Thrones

• Value added content (e.g. interactive maps) bound to real-time video playback on HBO GO
‘Traditional’ social media...
HBO Connect

The Latest
WITHDRAWAL VICTIM

allimoral

My Sunday night sucked without #TrueBlood. #tewithdrawal

26 minutes ago
Favorite Retweet Reply

TALK ABOUT YOUR WITHDRAWAL

TRUEBLOOD
JUNE 26 9PM SUNDAYS

Ways To Feed Your Addiction

Video:
Binge at HBO GO

Find:
Reach out to your fellow Truebies

Check-In:
Check (yourself) in with GetGlue

Find:
Follow Baby Vamp's Blog
Get Glue social integration into HBO.com

Got HBO? Get Glue.
Check-in to each episode this season to unlock a set of 12 exclusive Boardwalk Empire “booze”-inspired stickers. Download the GetGlue app or visit GetGlue.com.
Social TV – Comcast’s Tuner Fish

- Comcast incubated Tuner Fish, as social search utility for TV
- HBO experimented with True Blood campaign
Ongoing shifts in digital media trends...

**Mass Media**
- General
- Passive
- National
- Wide Audience
- Broadcast
- Wired
- Single Platform
- At Home/Office
- Editorial Control
- Gross Rating Points
- Household Targeting

**Me Media**
- Personalized
- Interactive
- Local
- Niche Segments
- Unicast
- Wireless
- Multi-Platform
- On the Go
- Social / Wisdom of Crowds
- Cost per Action
- Data Analytics Overload
Satisfying the end user...

• Linear appointment viewing **VS.** on demand on my schedule
  • At home on my big screen **VS.** on the go on my phone
  • Passive lean back experience **VS.** interactive engagement
  • Top quality programming **VS.** affordable economics
    • Rich storytelling **VS.** ’snackable’ short-form media
  • Personalization and curation **VS.** social and crowdsourced
    • Targeting and relevance **VS.** privacy and anonymity
Questions?