Building a Mobile Strategy Based on HTML5

Feb 8, 2013

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Turner Broadcasting System INC
I head mobile product development at Turner...

... we build mobile products for Turner’s media businesses ("brands")
How can users find you & your business on mobile?

- App Stores & Marketplaces
- Mobile Web & Search
App-store model offers two distinct benefits through its value-chain

1. Controlled Marketplace

- Trusted Source
- Control over Ecosystem
- Loss of Efficiency / Speed to Market
App-store model offers two distinct benefits through its value-chain.

1. **Controlled Marketplace**
   - Loss of Revenues (shared)
   - One Step Transaction

2. **Ease of Purchase**
   - Revenues
   - Direct Monetization
   - Loss of Revenues (shared)
And, two commonly known biz models – pay to download versus free to download

Ways to Make Money in Mobile

1. Pay to download
2. Free to download
   1. Ad supported
   2. Freemium
      a) Subscriptions
      b) In-App Purchases

Success Factor

# of Downloads
But, “pay to download” is NOT a commonly successful model.

![Distribution of App Downloads - Paid vs Free](chart.png)

Source: Research by University of Cambridge, UK (Mar 2012)
Nor very lucrative – top paid-app publishers made $1 per download (avg)

Average Top 50 Paid App (average cost to user = $1.49)

Developer
$1.04, 70%

Apple's Bottom Line, $0.21, 14%

Credit Card Fee, $0.22, 15%

Processing, $0.01, 1%

Source: Piper Jaffray, June 2010
So, the only real viable business model is Free – either Ad supported or Freemium.

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Success Factors

Total Consumption = Reach \times User Engagement

Reach = \# of users

User Engagement = consumption per user
1. **Reach** is and will always be bigger through mobile-web than apps

### US Mobile Subscriber Market Share

- **Smartphones**: 53%
- **Feature Phones**: 47%

- **Google**: 28%
- **Apple**: 18%
- **BB/RIM**: 5%
- **Microsoft**: 2%
- **Symbian (formerly Nokia)**: ~0%

Source: comScore MobiLens, Jan 2013
Engagement is driven by Usability: apps have done better than mobile-web

NN/g Usability Study – Average Success Rates

Source: Nielson Norman Group (Jakob Nielson’s Alertbox) – Sep 2011
However, mobile web is always catching up with apps on capability & performance

... while platforms are pushing the bar ever higher
HTML5 & CSS3 have closed a lot of the capability & performance gaps...

Offline mode – Store Key Values OR Hierarchical data (SQLLite deprecated)

Standardized peripheral integrations – Camera, GPS, Accelerometer, Compass

CSS Filters, Transforms & Transitions

Multi touch events & gesture recognition
## Smartphones HTML5 compatibility scores (out of 500) - current state

![First place](image1.png) ![Runner up](image2.png) ![Upcoming](image3.png) /500

<table>
<thead>
<tr>
<th>Smartphone Web Browsers:</th>
<th>Score</th>
<th>MAX 500</th>
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<tbody>
<tr>
<td>Opera Mobile 12.10</td>
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<td>Chrome</td>
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<td>Firefox Mobile 16</td>
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<td>iOS 6.0</td>
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<td>Android 4.0</td>
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<td>Android 2.3</td>
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**Source:** HTML5Test.com
## Tablets HTML5 compatibility scores (out of 500) – current state

<table>
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<th>Tablet Web Browsers:</th>
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<td>Silk 2.2</td>
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<td>Internet Explorer 10</td>
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<tr>
<td>Android 4.0</td>
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<tr>
<td>webOS 3.0</td>
<td>224</td>
</tr>
</tbody>
</table>

Source: HTML5Test.com
And, state-of-the-art is rapidly getting better...

Source: HTML5Test.com
We have a range of options between pure mobile-web & pure native-apps.
Single **Responsive** codebase for all screen sizes

**CNN Elections 2012**

**Lessons Learned:**

- Useful for informational, promotional or other content only features/functions.

- Leverage mobile features to utilize the time & place context.

- Mobile first. Don’t start with desktop, then subtract.

**CNN Elections 2012**
Two distinct products for desktop & mobile web

CNN Money
HTML5 Mobile Web App

Highlights:
- Single Page/Entry
- Swipe-able touch
- Offline Mode

Lessons Learned:
- Strive for URL parity
- Vagaries of older Androids (Gingerbread & older)
Hybrid Apps built partly using HTML5, deployed in app-store

TCM Film Festival

Hybrid App: (iOS & Android)

Highlights:
- Rolled our own native bridge
- Hardware accelerated CSS Transitions
- Push, Camera, Calendar integration in native layer

Lessons Learned:
• JS runs slower in hybrid apps.
• Use CSS animations instead.
• Close to native experience is achievable.
Takeaways

- No one right answer. More than two options.
  - If you have the budget, be everywhere. Otherwise it’s a trade-off one way or another.

- HTML5 is closing the “performance and capability gap”, and has a growing place in your strategy.
  - Strongly consider hybrid & even pure web-app.
  - Responsive Design doesn’t always apply.
  - Strive for URL parity and invest in SEO optimization.
What’s next in mobile-web?

• Browsers are integrating user account & identity
  – Google Chrome, Firefox Sync, Amazon Silk & Yahoo Axis, etc

? Could this enable one-step purchase, unleashing micro-transactions on web/mobile-web?