INTERNET TRENDS

D10 CONFERENCE
5/30/2012

Mary Meeker
Outline

1) **Basic Stats** – Internet Growth Remains Robust, Rapid Mobile Adoption Still in Early Stages

2) **Re-Imagination** – of Nearly Everything

3) **Economy** – Mixed Trends, With Negative Bias

4) ‘**USA, Inc.**’ – A Lot to be Excited About in Tech, A Lot to be Worried about in Other Areas

5) **Bubble** – or Not?
BASIC STATS – INTERNET GROWTH REMAINS ROBUST, RAPID MOBILE ADOPTION STILL IN EARLY STAGES
INTERNET USERS
2.3B Global Internet Users in 2011* – 8% Growth*, Driven by Emerging Markets

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2008-2011 Internet User Adds (MMs)</th>
<th>2011 Internet Users (MMs)</th>
<th>Y/Y Growth</th>
<th>Population Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>215</td>
<td>513</td>
<td>12%</td>
<td>38%</td>
</tr>
<tr>
<td>2</td>
<td>India</td>
<td>69</td>
<td>121</td>
<td>38</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Indonesia</td>
<td>37</td>
<td>55</td>
<td>22</td>
<td>23</td>
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<tr>
<td>4</td>
<td>Philippines</td>
<td>28</td>
<td>34</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Nigeria</td>
<td>21</td>
<td>45</td>
<td>--*</td>
<td>28</td>
</tr>
<tr>
<td>6</td>
<td>Mexico</td>
<td>19</td>
<td>42</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>7</td>
<td>Russia</td>
<td>16</td>
<td>61</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>USA</td>
<td>15</td>
<td>245</td>
<td>1</td>
<td>79</td>
</tr>
<tr>
<td>9</td>
<td>Iran</td>
<td>14</td>
<td>37</td>
<td>--*</td>
<td>48</td>
</tr>
<tr>
<td>10</td>
<td>Turkey</td>
<td>11</td>
<td>36</td>
<td>26</td>
<td>49</td>
</tr>
<tr>
<td>Top 10</td>
<td></td>
<td>444</td>
<td>1,189</td>
<td>12%</td>
<td>32%</td>
</tr>
<tr>
<td>World</td>
<td></td>
<td>663</td>
<td>2,250</td>
<td>8%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Note: *Nigeria / Iran data as of 12/10; Other 8 countries’ data as of 12/11, 2.3B global Internet users and 8% Y/Y growth rate based on the latest available data (most as of 12/11, some as of 12/10). Source: United Nations / International Telecommunications Union, internetworldstats.com.
### 1.1B Global Mobile 3G Subscribers, 37% Growth, Q4 – Only 18% of Mobile Subscribers

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>CQ4:11 3G Subs (MM)</th>
<th>3G Penetration</th>
<th>3G Sub Y/Y Growth</th>
<th>Rank</th>
<th>Country</th>
<th>CQ4:11 3G Subs (MM)</th>
<th>3G Penetration</th>
<th>3G Sub Y/Y Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA</td>
<td>208</td>
<td>64%</td>
<td>31%</td>
<td>16</td>
<td>Canada</td>
<td>166</td>
<td>62%</td>
<td>34%</td>
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<tr>
<td>2</td>
<td>Japan</td>
<td>122</td>
<td>95</td>
<td>9</td>
<td>17</td>
<td>Taiwan</td>
<td>140</td>
<td>48</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>China</td>
<td>57</td>
<td>6</td>
<td>115</td>
<td>18</td>
<td>South Africa</td>
<td>132</td>
<td>21</td>
<td>49</td>
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<td>4</td>
<td>Korea</td>
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<td>85</td>
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<td>19</td>
<td>Turkey</td>
<td>131</td>
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<td>5</td>
<td>Italy</td>
<td>44</td>
<td>51</td>
<td>25</td>
<td>20</td>
<td>Portugal</td>
<td>130</td>
<td>78</td>
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<td>6</td>
<td>UK</td>
<td>42</td>
<td>53</td>
<td>25</td>
<td>21</td>
<td>Vietnam</td>
<td>129</td>
<td>11</td>
<td>358</td>
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<td>7</td>
<td>Brazil</td>
<td>41</td>
<td>17</td>
<td>99</td>
<td>22</td>
<td>Mexico</td>
<td>116</td>
<td>11</td>
<td>55</td>
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<tr>
<td>8</td>
<td>India</td>
<td>39</td>
<td>4</td>
<td>841</td>
<td>23</td>
<td>Malaysia</td>
<td>108</td>
<td>27</td>
<td>7</td>
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<tr>
<td>9</td>
<td>Germany</td>
<td>38</td>
<td>36</td>
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<td>Sweden</td>
<td>107</td>
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<td>10</td>
<td>Spain</td>
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<td>57</td>
<td>21</td>
<td>25</td>
<td>Philippines</td>
<td>106</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td>11</td>
<td>France</td>
<td>30</td>
<td>45</td>
<td>35</td>
<td>26</td>
<td>Saudi Arabia</td>
<td>104</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>12</td>
<td>Indonesia</td>
<td>29</td>
<td>11</td>
<td>27</td>
<td>27</td>
<td>Netherlands</td>
<td>9</td>
<td>44</td>
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<tr>
<td>13</td>
<td>Poland</td>
<td>28</td>
<td>57</td>
<td>17</td>
<td>28</td>
<td>Egypt</td>
<td>8</td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td>14</td>
<td>Australia</td>
<td>22</td>
<td>76</td>
<td>21</td>
<td>29</td>
<td>Austria</td>
<td>7</td>
<td>58</td>
<td>24</td>
</tr>
<tr>
<td>15</td>
<td>Russia</td>
<td>17</td>
<td>8</td>
<td>45</td>
<td>30</td>
<td>Nigeria</td>
<td>6</td>
<td>6</td>
<td>51</td>
</tr>
</tbody>
</table>

**Global 3G Stats:** Subscribers = 1,098MM Penetration = 18% Growth = 37%

Note: *3G includes CDMA 1x EV-DO and Rev. A/B, WCDMA, HSPA; One user may have multiple mobile subscriptions and may be counted as multiple subscriber. Source: Informa WCIS+.
MODERN MOBILE DEVICE EVOLUTION
iPods Changed Media Industry… iPhones Ramped Even Faster… iPad Growth (3x iPhone) Leaves “Siblings” in Dust

First 8 Quarters Cumulative Unit Shipments, iPod vs. iPhone vs. iPad

Source: Apple, as of CQ1:12 (8 quarters post iPad launch).
Android ‘Phone’ Adoption Has Ramped Even Faster – 4x iPhone

First 13 Quarters Cumulative Global Android & iPhone Unit Shipments

Global Cumulative Unit Shipments (MM)

Quarters After Launch

Android
iPhone

Source: Gartner, Morgan Stanley Research, as of Q4:11.
Despite Tremendous Ramp So Far, Smartphone User Adoption Has Huge Upside

Global Smartphone vs. Mobile Phone Subscriptions, Q4:11

Source: Mobile phone subscriptions per Informa (as of Q4:11), Smartphone subscriptions estimate based on Morgan Stanley Research’s estimated smartphone user as % of total mobile user at the end of 2011 (16%).

Note: While there are 1B global 3G subscribers as of Q4:11, not all of them were smartphone users. One user may have multiple mobile subscriptions, therefore actual user #s may be lower than subscriber #s.
Impressive 29% of USA Adults Own Tablet / eReader, Up from 2% Less Than Three Years Ago

% of USA Adults Who Own Tablet Computers or eReaders, 4/09 – 1/12

Source: Pew Research Center, 1/12.
MOBILE MONETIZATION TRANSITION
Good News =
Global Mobile Traffic Growing Rapidly to 10% of Internet Traffic

Global Mobile Traffic as % of Total Internet Traffic, 12/08 – 5/12

1% in 12/09
4% in 12/10
10% in 5/12

Source: StatCounter Global Stats.
Mobile @ 8% of USA eCommerce & Helping Accelerate Growth

USA eCommerce Y/Y Growth vs. Mobile Commerce as % of Total eCommerce, Q1:10 – Q1:12

Source: comScore
Good News = Mobile Monetization Growing Rapidly (71% Apps, 29% Ads)

Source: Gartner. CAGR is compound annual growth rate.

Note: Apple has paid >$3B $’s to developers as of 9/11, implying gross app market revenue of $4B in 3 years; Google indicated during CQ3 earnings call that it expects $2.5B mobile ad revenue in 2011E.

KPCB
Good News = Material Upside for Mobile Ad Spend vs. Mobile Usage

% of Time Spent in Media vs. % of Advertising Spending, USA 2011

- Print: 7% Time Spent, 25% Ad Spend
- Radio: 15% Time Spent, 11% Ad Spend
- TV: 43% Time Spent, 42% Ad Spend
- Internet: 26% Time Spent, 22% Ad Spend
- Mobile: 10% Time Spent, 1% Ad Spend

Internet Ad = $30B* Mobile Ad = $1.6B*

~$20B+ Opportunity in USA

Note: *Internet (excl. mobile) advertising reached $30B in USA in 2011 per IAB, Mobile advertising reached $1.6B per IAB. Print includes newspaper and magazine. $20B opportunity calculated assuming Internet and Mobile ad spend share equal their respective time spent share. Source: Time spent and ad spend share data eMarketer, 12/11, Internet and mobile ad dollar spent amount per IAB.
Good / Bad News – Rapidly Growing Mobile Internet Usage Surpassed More Highly Monetized Desktop Internet Usage in May, 2012, in India

India Internet Traffic by Type, Desktop vs. Mobile, 12/08 – 5/12

Source: StatCounter Global Stats.
Bad News =
eCPMs 5x Lower on Mobile than Desktop

Effective CPM, Desktop Internet* vs. Mobile Internet**

Table: Mobile eCPM by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>eCPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
<td>$1.24</td>
</tr>
<tr>
<td>Education</td>
<td>$1.17</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>$0.89</td>
</tr>
<tr>
<td>Utilities</td>
<td>$0.68</td>
</tr>
<tr>
<td>Health &amp; Fitness</td>
<td>$0.68</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$0.68</td>
</tr>
<tr>
<td>Medical</td>
<td>$0.63</td>
</tr>
<tr>
<td>Reference</td>
<td>$0.55</td>
</tr>
<tr>
<td>Games</td>
<td>$0.51</td>
</tr>
<tr>
<td>Navigation</td>
<td>$0.49</td>
</tr>
</tbody>
</table>

Note: * Desktop Internet is a weighted average CPM calculation based on comScore Display ad share data and Vivaki CPM by category data as of Q3:11. **Mobile Internet is a simple average eCPM calculation based on Mobclix Exchange USA data as of 3/12.
Bad News = ARPU (Average Revenue per User) 1.7-5x Lower on Mobile than Desktop

<table>
<thead>
<tr>
<th>Company</th>
<th>ARPU Definition</th>
<th>Desktop ARPU</th>
<th>Mobile ARPU</th>
<th>Desktop ARPU / Mobile ARPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pandora</td>
<td>Ad Revenue per User (Trailing 12-Month)</td>
<td>$6.62</td>
<td>$3.87</td>
<td>1.7x</td>
</tr>
<tr>
<td>Tencent</td>
<td>Revenue per Paying User (Annualized)</td>
<td>$58.95</td>
<td>$17.61</td>
<td>3.3x</td>
</tr>
<tr>
<td>Zynga</td>
<td>Bookings per Daily Active User (Annualized)</td>
<td>$25.00</td>
<td>$5.00*</td>
<td>5.0x</td>
</tr>
</tbody>
</table>

Note: *Zynga data are estimates. All data as of 5/12. Source: Pandora, Tencent, Zynga.
### Google – Mobile Growth Helping Boost Clicks but Reducing Cost per Click thus Constraining Revenue Growth

<table>
<thead>
<tr>
<th></th>
<th>Q1:11</th>
<th>Q2:11</th>
<th>Q3:11</th>
<th>Q4:11</th>
<th>Q1:12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Advertising Revenue ($MM)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$8,306</td>
<td>$8,716</td>
<td>$9,335</td>
<td>$10,174</td>
<td>$10,225</td>
</tr>
<tr>
<td>Y/Y Growth</td>
<td>28%</td>
<td>33%</td>
<td>33%</td>
<td>25%</td>
<td>23%</td>
</tr>
</tbody>
</table>

| **Aggregate Paid Clicks (MM)** |       |       |       |       |       |
|                                | 15,245 | 15,004 | 16,876 | 19,661 | 21,116 |
| Y/Y Growth                    | 17%    | 18%    | 28%    | 35%    | 39%    |

| **Cost per Click (CPC - $)**  |       |       |       |       |       |
|                              | $0.54  | $0.58  | $0.55  | $0.52  | $0.48  |
| Y/Y Growth                   | 10%    | 12%    | 4%     | (8%)   | (12%)  |
| Q/Q Growth                   | (3%)   | 7%     | (5%)   | (8%)   | (6%)   |

Source: Google, Paid clicks and CPC data per Morgan Stanley Research estimates.
Facebook – Mobile Growth Helping Drive Users but Containing ARPU thus Constraining Revenue Growth

<table>
<thead>
<tr>
<th></th>
<th>Q1:11</th>
<th>Q2:11</th>
<th>Q3:11</th>
<th>Q4:11</th>
<th>Q1:12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ad Revenue ($MM)</strong></td>
<td>$637</td>
<td>$776</td>
<td>$798</td>
<td>$943</td>
<td>$872</td>
</tr>
<tr>
<td><strong>Y/Y Growth</strong></td>
<td>87%</td>
<td>83%</td>
<td>77%</td>
<td>44%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Mobile Active Users (MAUs) (MM)</strong></td>
<td>288</td>
<td>325</td>
<td>376</td>
<td>432</td>
<td>488</td>
</tr>
<tr>
<td><strong>Y/Y Growth</strong></td>
<td>123%</td>
<td>110%</td>
<td>92%</td>
<td>76%</td>
<td>69%</td>
</tr>
<tr>
<td><strong>% of Total MAUs</strong></td>
<td>42%</td>
<td>44%</td>
<td>47%</td>
<td>51%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>Annualized Ad ARPU ($)</strong></td>
<td>$3.96</td>
<td>$4.37</td>
<td>$4.15</td>
<td>$4.59</td>
<td>$4.00</td>
</tr>
<tr>
<td><strong>Y/Y Growth</strong></td>
<td>15%</td>
<td>18%</td>
<td>19%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Q/Q Growth</strong></td>
<td>(13%)</td>
<td>11%</td>
<td>(5%)</td>
<td>11%</td>
<td>(13%)</td>
</tr>
</tbody>
</table>

Source: Facebook S-1.
Good News = Mobile ARPU Can Rise Rapidly, as Evinced by Japan Mobile Game Maker GREE

GREE Annualized Mobile ARPU (per Registered Member), Q3:09 – Q1:12

Annualized ARPU ($)

Q3:09  Q4:09  Q1:10  Q2:10  Q3:10  Q4:10  Q1:11  Q2:11  Q3:11  Q4:11  Q1:12

$6  $7  $7  $8  $8  $9  $10  $12  $17  $23  $24

Note: GREE is a Japanese social / mobile gaming company. Source: GREE, Mia Nagasaka, Morgan Stanley Research.
Good News = Mobile ARPU Should Surpass Desktop ARPU, as Evinced by Japan Mobile Game Maker CyberAgent

CyberAgent Ameba Annualized ARPU* (Per Paying User), Desktop vs. Mobile, 6/09 – 12/11

Note: CyberAgent is a Japanese social / mobile gaming company. *Users can purchase 1 AmeGold for 1 Japanese Yen. Users could also earn a small amount of AmeGold from completing certain in-game tasks. Source: CyberAgent.
Mobile Monetization_good_news = Desktop Internet
Proved Ad $ follow eyeballs, it just takes time

Mobile Monetization has more going for it than early desktop monetization had:

- Very rapid user growth
- App + in-app monetization (44% of apps are free, 56% of apps priced at $3.77 average)
- Rapid growth of mobile commerce + payment systems
- Large number of innovative developers
- Broad base of sophisticated advertisers + marketers
- Highly engaged consumers assisted by social + curation tools
- Rapid acceptance of two device platforms – smartphones + tablets
- ‘Essential utility’ / ultra useful apps being created
- Lessons from developed mobile markets like Japan – using japanese market pattern recognition, mobile monetization levels in USA could surpass desktop within 1-3 years

<table>
<thead>
<tr>
<th></th>
<th>1995E</th>
<th>2011E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Internet Ad Revenue</td>
<td>$55MM</td>
<td>$73B</td>
</tr>
<tr>
<td>Ad Revenue per User</td>
<td>$9</td>
<td>$49</td>
</tr>
<tr>
<td>Global Internet Users</td>
<td>6MM</td>
<td>1.5B</td>
</tr>
</tbody>
</table>

Source: Global online ad revenue per Jupiter Communications (1995), ZenithOptimedia (2011). Internet users per Morgan Stanley estimate (1995) and comScore (2011). We note that comScore reports a lower global Internet user # than International Telecommunications Union. App price data per 148apps / AppBrain.
PLATFORM FIRE HOSES
Viddy Monthly Active Users (MAU) and Daily Active Users (DAU) on Facebook Platform, 3/31/12 – 5/29/12

4/24 – Facebook Begins Highlighting Viddy in News Feed

Note: Viddy added 17MM new monthly active users between 4/24 (when Facebook began highlighting Viddy in the newsfeed) and 5/1.

Source: AppData.
Apple App Store Distribution – iTunes App Store Driving 46MM+* Downloads per Day

First 15 Quarters Cumulative # of Downloads, iTunes Music vs. Apps

RE-IMAGINATION OF NEARLY EVERYTHING* –
POWERED BY NEW DEVICES + CONNECTIVITY + UI + BEAUTY – WHERE WE ARE NOW…
First Generation of Re-Imagination - After 125 Years, Landlines Were Surpassed by Mobiles in 2002

Global Fixed Telephone Lines vs. Mobile Subscriptions, 1994 - 2009

- Fixed Telephone Lines
- Mobile Subscriptions

2002: Inflection Point
Mobiles > Landlines

2006
Landlines Peaked at 1.3B

2009
4.7B Mobile Subscribers

Source: International Telecommunications Union.
First Generation of Re-Imagination – After 244 Years, Encyclopedia Britannica is Going Out of Print in 2012

Encyclopedia Britannica Hard Copy Sales, 1990 – 2011

- 1990 – Sales
  Peaked at 120K/year
- 1993 – Microsoft Introduced Encarta Encyclopedia for PC @ $99
- 2008 – Microsoft Shut Down Encarta
- 2012 – Encyclopedia Britannica Announced End of Print Editions

Note: *as of 4/12, per comScore global data.

Source: Kellog School of Management, Shane Greenstein and Michelle Devereux, “The Crisis at Encyclopedia Britannica.”
First Generation of Re-Imagination – After 305 Years,* Newspaper Ad Revenue Was Surpassed by Internet in 2010

*America’s first newspaper ad appeared in 1704 in a Boston local newspaper, per AdAge. Internet advertising includes online newspaper advertising. Source: Print newspaper ad spending per Newspaper Association of America (NAA); Internet ad spending per Interactive Advertising Bureau (IAB).
Re-Imagination of Computing Devices…

**THEN…**
(Desktops / Notebooks)

**NOW…**
(Tablets / Smartphones)
Re-Imagination of Connectivity…

THEN...

NOW...
We hope to rewire the way people spread and consume information...We think a more open and connected world will help create a stronger economy with more authentic businesses that build better products and services.

- Mark Zuckerberg, Founder / CEO, Facebook

Letter to Potential Shareholders, May 2012
Re-Imagination of Life Stories…

THEN…

Biographies / Item Exhibitions For Famous People or Loved Ones

NOW…

(Facebook Timeline)

Broad Personalized Media Discovery Feed / Automatically Created / Widely Accessible
Re-Imagination of News + Information Flow…

THEN…

Delayed / Dedicated Reporters + Cameramen / Regional or National Reach

NOW…

(Twitter)
Real-Time / Citizen Reporting via Mobile Devices / Global Reach

http://twitpic.com/135xa - There's a plane in the Hudson. I'm on the ferry going to pick up the people. Crazy.
Re-Imagination of Note Taking…

THEN…

Pencil + Notepad

NOW…

(Evernote)
Always Synced / Multi-Device / Picture + Audio Enabled / Searchable
Re-Imagination of Drawing...

THEN...
Dedicated Canvas / Paint Supplies / Studios / Limited Distribution

NOW...
(Paper by Fiftythree…)
Reusable Canvas (Screen) / Creating Art Anywhere Anytime / Digitally Enhanced Creation Tools / Instant Sharing
Re-Imagination of Photography…

THEN…
Dedicated Camera / Manually Transfer Digital Files / Develop Films

NOW…
(Instagr.am / Camera+ / Hipstamatic…)
Always With You Camera (Smartphone) / Instant Digital Effects / Share / Sync / Discover
Re-Imagination of Diaries…

**THEN…**

Hand-Written / Drawn

**NOW…**

(Path)
One-Tap to Add Entry / Multimedia / Location-Aware / Share / Search
Re-Imagination of Scrapbooking / Aspiration…

THEN...

Paper / Scissors / Glue

NOW...

(Pinterest)
One-Click to Pin / Share / Follow / Always Accessible
Re-Imagination of Magazines...

THEN...

Piles of Print Copies

NOW...

(Flipboard)
More Content / Always Up-To-Date / Personalized / Access Everywhere / Interactive (Video + Audio) / Share

Your new Flipboard

Instagram. Social search. Speed.
Re-Imagination of Books…

THEN...

NOW...

(Amazon Kindle / Apple iBooks)
Re-Imagination of Music…

THEN…
Buy Albums + CDs in Stores / Playback via Dedicated Players

NOW…
(Spotify…)
Discovery of Music Through Friends + Experts / Instant On-Demand Streaming on Internet-Enabled Devices

KPCB
Re-Imagination of Sound…

THEN…
Tape Recorder / Hard to Edit / Share

NOW…
(SoundCloud)
Record / Edit / Upload / Playback Anywhere /
Anytime / On Any Device / Playlist sharing / Discovery

KPCB
Re-Imagination of Artists / Concerts...

THEN...
Big Screen Tributes

NOW...
(Tupac @ Coachella…)
3D / Life-Like / Programmable Hologram / Bringing Past Icons Back to Life
Re-Imagination of Video…

**THEN…**
Physical Retail / Rental Stores

**NOW…**
(YouTube / Netflix…)
On-Demand / Instant Streaming / Accessible Everywhere
Re-Imagination of Video Creation / Production…

THEN…
Dedicated Set / Camera / Lighting / Editing Equipment

NOW…
(SocialCam / Viddy / GoPro…)
Live Digital Effects / Wearable Recording Device / Real-Time Upload / Discovery
Re-Imagination of Distribution + Monetization for ‘Talent’…

THEN…
(Glenn Beck on Fox News)

NOW…
(GBTV - Digital)
With 300K Subscribers + Lower Production Costs, GB Making Materially More Money

KPCB
Re-Imagination of Home Entertainment...

THEN...

Lean Back / Lean Forward

NOW...

(Chill…)

Curl Up – Visual Layout / Social Discovery / Distribution / Interaction
Re-Imagination of TV...

THEN...
Linear Programming / Pre-Set Channels / Little Control Over Content

NOW...
(YouTube Channels / Bleacher Team Stream…) On Demand Personalized Content on Big Screen
Re-Imagination of Communication…

THEN…
Dedicated Devices / Limited Function & Range / Intrusive

NOW…
(Voxer…)
Push-To-Talk / Voice Message / Picture / Text / Location / Group Chat
Re-Imagination of Navigation + Live Traffic Info…

THEN...

Physical Copies of Map in Car / TV, Radio Reporting of Traffic Info

NOW...

(Waze)

User-Generated Digital Map / Live Crowd-Sourced Traffic Data
Re-Imagination of Sports Info…

THEN…
Professional Commentators / Reporters / Limited Coverage & Reach

NOW…
(Bleacher Report)
Anyone Can Be a Contributor / Opinion-Oriented Analysis / Multimedia / Social & Mobile Enabled
Re-Imagination of Home Improvement…

THEN…
Magazines / Cable TV Channels / Limited Interaction With Consumers

NOW…
(Houzz / One Kings Lane…)
Communication Platform for Designers & Consumers / Share / Discover & Click-And-Buy
Re-Imagination of Calling a Cab…

**THEN…**

Long Lines During Rush Hours / Rain / Some Areas May Not Have Taxis Roaming on Streets

**NOW…**

(Uber)
One-Tap Taxi Call / Location-Aware / Electronic Payment
Re-Imagination of Cars…

**THEN…**
Gasoline / Diesel Powered Internal Combustion Engine With Exhaust

**NOW…**
( Hybrid / Electric Cars )
Plug-in Electrical Powertrain / Regenerative Brake / Solar Panel Roof / Little-to-Zero Emission
Re-Imagination of Yellow Pages…

THEN…
Big Heavy Printed Business Listings / No Reviews / No Easy Search Feature

NOW…
(Yelp…)
User Reviews / Pictures / Recommendations / Location-Aware / Easily Searchable

KPCB
Re-Imagination of Coupons + Local Services...

THEN...
Non-Personalized / Smaller Discounts / Easily Lost or Forgotten

NOW...
(Groupon...)
Personalized / Location-Aware / Instant Deals / Group-buying Discount

KPCB
Re-Imagination of Getting Food Quickly…

THEN…

Permanent Store Locations

NOW…

(Kogi Food Truck…)

~100K Twitter Followers / Real-Time Location Updates
Re-Imagination of Cash Registers…

THEN…
Big + Odd Looking Machines / Receipt Printers Cash Drawers

NOW…
(Square)
Simple + Elegant Tablet + Square Reader / Email Receipts / Touch Signing
Re-Imagination of Window Shopping…

THEN…

NOW…
(One Kings Lane / Fab)
Click & Buy

KPCB
Re-Imagination of Marketplaces…

THEN…
Tent + Pickup Truck @
Street Fairs

NOW…
(Etsy)
Integrated Platform For Listings / Advertising / Payment / Inventory Management

KPCB
Re-Imagination of Manufacturing…

THEN…
Mass Production of High-Volume Standardized Items

NOW…
(Zazzle / Shapeways)
Customized / Personalized Design / 3D Printing Process
Re-Imagination of Instant Gratification / Personal Services...

**THEN...**

Mass Production of High-Volume Standardized Items

**NOW...**

(Zaarly / TaskRabbit / Fiverr)
One Click & Delivered to You
Re-Imagination of Idea Building / Funding...

**THEN...**
Flyers / Loudspeakers / Dinners / Checks

**NOW...**
(Kickstarter)
Online / Social Distribution / Real-Time Progress

The HuMn Wallet - the best minimal RFID blocking wallet
A Design project in Portland, OR by Scott Hueas - send message

1,973
BACKERS
$155,597
PLEDGED OF $66,000 GOAL
26
DAYS TO GO

ABOUT THIS PROJECT
We're two righteous dudes who need your help in making the world's best RFID wallet!
Re-Imagination of Personal Borrowing / Lending…

THEN…

Borrowers – Paper Application / Lengthy Approval Process / High Interest Rates
Investors – Little Access For Retail Investors / No Customization Based on Risk Tolerance

NOW…

(Lending Club…)
Borrowers – Online Application / Funded in Days / Lower Interest Rates
Investors – Easy Customization / Diversification / Better Returns

Apply online in minutes
Get funded in a few days
Make fixed monthly payments
Re-Imagination of Business Collaboration…

THEN…
Meetings / Whiteboards / Teleconferences

NOW…
(Salesforce.com / Yammer / Jive…)
Online Working Groups / Data Sharing / Instant Messages
Re-Imagination of Recruiting / Hiring...

**THEN...**

Job Fairs / Campus Recruiting Events / Paper Resumes

**NOW...**

(LinkedIn)

Online Resumes / Social Relevancy For Recruiters / Searchable Skill Sets / Endorsements / Recommendations
Re-Imagination of Focus Groups…

THEN…
Fixed Time / Location / Small Group / No Real-Time Feedback

NOW…
(Affectiva)
Real-Time Video Emotion Detection + Analysis / Effortless Participation / Data Capture / ‘Moodometer’
Re-Imagination of Data...

THEN...

Store Everything Because We Can Do It Inexpensively

SOON...

Data Obesity / Data Quality Issues
How To Find a Needle in a Haystack?

Source: Mike Abbott, KPCB.
Re-Imagination of Signatures…

THEN…
Scan / Fax / Mail to Return Signature Page

NOW…
(DocuSign)
Electronic Documents / Secure Audit Trail / Instant E-Signature
Re-Imagination of Healthcare Access…

**THEN…**
Call to Make Appointments / Days or Weeks to See Doctors

**NOW…**
*(ZocDoc / Teladoc)*
On-Demand Access to Doctors in Minutes or Same Day / In Person or Via Phone Video Call

KPCB
From learning by listening to learning by doing…
Education and learning will become as much fun as videogames. And we call it ‘full body learning.’

- Bing Gordon
  Partner, KPCB
Re-Imagination of Engagement…

**THEN...**
Buttons / Joysticks / D-pads / Wires

**NOW...**
(Xbox Kinect)
Camera-Based Gestures / Voice Control
Re-Imagination of Education…

THEN...

Classrooms / Lectures / Reading Materials

NOW...

(Codecademy / Coursera / Khan Academy…)
Interactive / Online / Accessible by Anyone Anywhere Anytime
Re-Imagination of Rewards / Satisfaction...

**THEN...**

**NOW...**
(Klout / FourSquare / Zynga...)

Klout Perks
@KloutPerks San Francisco, CA

Welcome to the Klout merlotocracy! We use this account to notify people of Perks, if that bugs you please feel free to just follow @Klout instead. Thanks!
http://www.klout.com

KPCB
Re-Imagination of Government Subsidies...

THEN...
Gather in Town / Wait in Line to Receive Subsidies

NOW...
200MM+ Farmers in India Receive Government Subsidies Via Mobile Devices*

Note: There are 90MM Kisan credit card users and 118MM job card users, both of which do not require bank accounts but utilize mobile phones as identity verification / payment confirmation, per Ministry of Rural Development, Government of India.
Re-Imagination of Communication...

THEN...
Caveman Drawings...

NOW...
Instagr.am...
Re-imagination of Crime Awareness...

**THEN...**
Warning Signs / Community Reports

**NOW...**
(SFPD / CrimeMapping)
Centralized Database / Customized Crime Alerts / Mobile Viewing
Re-Imagination of Thermostats…

THEN…
On/Off Switch + Temperature Setting

NOW…
(Nest)
Wi-Fi Enabled / Auto-Learning / Auto-Sensing / Remote Control / Energy Efficient
Re-Imagination of Pet Care...

THEN...
Flyers on Lamp Posts for Missing Pets

NOW...
Internet-Enabled / GPS Tracking Pet Collars
Re-Imagination of Feeds... ;)

THEN...

NOW...

(Facebook News Feed / Ticker / Twitter Feed)
Nearly Ubiquitous High-Speed Wireless Access in Developed Countries
Unprecedented Global Technology Innovation
Ultra Competitive Markets for Mobile Operating Systems + Devices
Broadly Accepted ‘Social Graphs’ / Information Transparency
Fearless (& Connected) Entrepreneurs
Difficult ‘What Do I Have to Lose’ Economic Environment for Many
Available (& Experienced) Capital
Fearless (& Connected) Consumers
Inexpensive Devices / Access / Services (Apps)
Ability to Reach Millions of New Users in Record (& Accelerating) Time
‘Social Emerging as Starting Distribution Point for Content,’ (Brian Norgard, Chill)
Aggressive (and Informed) ‘On My Watch’ Executives at ‘Traditional’ Companies
Unprecedented Combo of Focus on Technology AND Design
Nearly ‘Plug & Play’ Environment For Entrepreneurs – Marketplaces / Web Services / Distributed Work / Innovative Productivity Tools / Low ‘Start Up’ Cost
Beautiful / Relevant / Personalized / Curated Content for Consumers
Addressable Market For Re-Imagination – Aggregate Market Cap of Global Public Companies = $36+ Trillion*

<table>
<thead>
<tr>
<th>Sector</th>
<th>2012 Market Cap ($B)</th>
<th>2011 Revenue ($B)</th>
<th>2011 EBITDA ($B)</th>
<th>Top Companies by Mkt Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financials</td>
<td>$6,855</td>
<td>$4,647</td>
<td>$1,035</td>
<td>ICBC, China Construction Bank, Wells Fargo</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>4,386</td>
<td>3,972</td>
<td>543</td>
<td>Wal-Mart, Nestle, P&amp;G, Coca-Cola</td>
</tr>
<tr>
<td>Information Technology</td>
<td>3,966</td>
<td>2,298</td>
<td>422</td>
<td>Apple, Microsoft, IBM, Google, Samsung</td>
</tr>
<tr>
<td>Energy</td>
<td>3,926</td>
<td>6,652</td>
<td>1,068</td>
<td>Exxon Mobil, PetroChina, Shell, Chevron</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>3,734</td>
<td>4,734</td>
<td>624</td>
<td>Toyota, Amazon.com, McDonald’s, Walt Disney</td>
</tr>
<tr>
<td>Health Care</td>
<td>3,380</td>
<td>2,204</td>
<td>455</td>
<td>Johnson &amp; Johnson, Pfizer, Roche, Novartis</td>
</tr>
<tr>
<td>Industrials</td>
<td>3,198</td>
<td>4,407</td>
<td>608</td>
<td>General Electric, Siemens, UPS</td>
</tr>
<tr>
<td>Materials</td>
<td>3,129</td>
<td>2,607</td>
<td>712</td>
<td>BHP Billiton, Rio Tinto, Vale</td>
</tr>
<tr>
<td>Telecommunication Services</td>
<td>2,572</td>
<td>2,045</td>
<td>699</td>
<td>China Mobile, AT&amp;T, Telefonica, Vodafone</td>
</tr>
<tr>
<td>Utilities</td>
<td>1,188</td>
<td>1,501</td>
<td>315</td>
<td>GDF Suez, National Grid, E.ON, EDF</td>
</tr>
<tr>
<td>Total</td>
<td>$36,335</td>
<td>$35,066</td>
<td>$6,483</td>
<td></td>
</tr>
</tbody>
</table>

Note: *Based on 3,000 global publicly traded companies as defined by Morgan Stanley Research’s coverage universe. **EBITDA is earnings before interest, tax, depreciation and amortization. Source: Morgan Stanley Research. Data as of 5/23/12.
NET, LOTS OF STUFF BEING RE-IMAGINED AND THERE’S A LOT MORE...
Consumer Internet ‘White Space’

1) **Ear (+ Body)** - owing to better devices (wireless Bluetooth) / services (Siri / Spotify / Soundcloud...) / products (Up…)

2) **Car** – 52 minutes per day by 144MM Americans (76% alone)* spent in cars – largely untapped

3) **TV** – 3+ hours per day spent in front of TVs** – way better devices / interfaces / interfaces coming rapidly…Apple & Google footsteps raising bar…50MM+ Americans have Internet-enabled TVs

Source: *US Census Bureau, **BLS, Morgan Stanley Research estimates.
ECONOMY – MIXED TRENDS, WITH NEGATIVE BIAS
Stock Markets = Often Leading Indicators of Economic Activity, Recent 10-Week Trendline Not Encouraging...

Stock / Commodity Markets Performance (% Change From 1/10), 1/10 – 5/12

Note: All values are indexed to 1 (100%) on Jan 1, 2010. Data as of 5/25/12.
Source: Bloomberg, Yahoo! Finance, FactSet.
Consumer Confidence =
Near Four-Year Highs, Though Still Below 30-Year Average

The Conference Board Consumer Confidence Index, 1978 – 2012 YTD

30 Year Average CCI = 92.2
2/09 Trough CCI = 25.3
5/12 CCI = 64.9

Note: Index started in 1967 / benchmarked to 1985=100. The Index is calculated each month on the basis of a household survey of consumers' opinions on current conditions and future expectations of the economy. Source: The Conference Board, 5/12.
Consumer Sentiment – Improving but 49% of Americans View Economy as ‘Poor’

Q. How would you rate economic conditions today?

Percent of USA Consumers Who View The Economy as Poor, 1/09 – 4/12

Source: comScore.
Global GDP Growth Expected to Decelerate in 2012 with Europe Slipping Into Recession

<table>
<thead>
<tr>
<th>Country / Region</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012E</th>
<th>% of World Total, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>-3.5%</td>
<td>3.0%</td>
<td>1.7%</td>
<td>2.1%</td>
<td>22%</td>
</tr>
<tr>
<td>Euro Area</td>
<td>-4.3</td>
<td>1.9</td>
<td>1.4</td>
<td>-0.3</td>
<td>19</td>
</tr>
<tr>
<td>Germany</td>
<td>-5.0</td>
<td>3.6</td>
<td>3.1</td>
<td>0.6</td>
<td>5</td>
</tr>
<tr>
<td>France</td>
<td>-2.6</td>
<td>1.4</td>
<td>1.7</td>
<td>0.5</td>
<td>4</td>
</tr>
<tr>
<td>Italy</td>
<td>-5.5</td>
<td>1.8</td>
<td>0.4</td>
<td>-1.9</td>
<td>3</td>
</tr>
<tr>
<td>Spain</td>
<td>-3.7</td>
<td>-0.1</td>
<td>0.7</td>
<td>-1.8</td>
<td>2</td>
</tr>
<tr>
<td>UK</td>
<td>-4.9</td>
<td>2.1</td>
<td>0.7</td>
<td>0.8</td>
<td>4</td>
</tr>
<tr>
<td>Japan</td>
<td>-6.3</td>
<td>4.4</td>
<td>-0.7</td>
<td>2.0</td>
<td>8</td>
</tr>
<tr>
<td>China</td>
<td>9.2</td>
<td>10.4</td>
<td>9.2</td>
<td>8.2</td>
<td>11</td>
</tr>
<tr>
<td>India</td>
<td>6.8</td>
<td>10.6</td>
<td>7.2</td>
<td>6.9</td>
<td>2</td>
</tr>
<tr>
<td>Russia</td>
<td>-7.8</td>
<td>4.3</td>
<td>4.3</td>
<td>4.0</td>
<td>3</td>
</tr>
<tr>
<td>Brazil</td>
<td>-0.6</td>
<td>7.5</td>
<td>2.7</td>
<td>3.0</td>
<td>4</td>
</tr>
<tr>
<td>Developed Markets</td>
<td>-3.7</td>
<td>3.2</td>
<td>1.6</td>
<td>1.4</td>
<td>64</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>2.8</td>
<td>7.5</td>
<td>6.2</td>
<td>5.7</td>
<td>36</td>
</tr>
<tr>
<td>World</td>
<td>-0.7</td>
<td>5.3</td>
<td>3.9</td>
<td>3.5</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: IMF World Economic Outlook, 4/12.
USA, INC. – A LOT TO BE EXCITED ABOUT IN TECH, A LOT TO BE WORRIED ABOUT IN OTHER AREAS
‘Made in USA’ Smartphone Operating Systems = 64% Share from 5% Five Years Ago

Smartphone Operating System Market Share, 2005 vs. 2011E

Source: Morgan Stanley Research, Gartner.
USA, Inc. – Biggest Peace Time Gap Between Revenue & Expenses in USA History

Source: 1910 – 1930 per Census Bureau, 1940-2010 per White House OMB. Real GDP adjusted for inflation, in 2005 dollars.
ARE YOU HAPPY WITH WHERE YOUR TAX DOLLARS GO?

57%

ENTITLEMENTS  20%  DEFENSE  16%  OTHER*  6%  INTEREST

*OTHER INCLUDES NON-DEFENSE DISCRETIONARY SPENDING IN ENERGY, EDUCATION, INFRASTRUCTURE AND MORE.
ENTITLEMENT AND INTEREST EXPENSES WILL EXCEED USA INC.’S REVENUE WITHIN 15 YEARS
Note: Ranking excludes countries with gross government debt less than $10B in 2010. Gross government debt includes intragovernment obligations (such as Treasuries held by the Social Security Trust Fund in US’ case). Source: The International Monetary Fund (IMF).
110K+ Total Views
23K+ YouTube Views
7K+ Facebook Likes
4K+ Retweets
What Can You Do?

• Engage in Politics
• Help Others Understand Key Issues
• Do What You Can To Innovate, Create Jobs & Improve Education
BUBBLE - OR NOT?
RECENT INTERNET IPOS –
WHILE COMPELLING IN MARKET VALUE,
NOT COMPELLING IN PERFORMANCE…
Public Market Investors =
More Skeptical than Private Market Investors

<table>
<thead>
<tr>
<th>Company</th>
<th>IPO Date</th>
<th>Initial IPO Filing Range ($)</th>
<th>IPO Price ($)</th>
<th>1st Day Closing Price ($)</th>
<th>Current Price ($)</th>
<th>% Change From IPO</th>
<th>IPO Market Cap ($B)</th>
<th>Current Market Cap ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>5/12</td>
<td>$28-35</td>
<td>$38</td>
<td>$38</td>
<td>$29</td>
<td>(24%)</td>
<td>$104</td>
<td>$79</td>
</tr>
<tr>
<td>Zynga</td>
<td>12/11</td>
<td>$8.50-10</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>(40)</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Groupon</td>
<td>11/11</td>
<td>$16-18</td>
<td>20</td>
<td>26</td>
<td>12</td>
<td>(40)</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Pandora</td>
<td>6/11</td>
<td>$10-12</td>
<td>16</td>
<td>17</td>
<td>11</td>
<td>(30)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>5/11</td>
<td>$32-35</td>
<td>45</td>
<td>94</td>
<td>100</td>
<td>137</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Yahoo Finance, Bloomberg, FactSet, data as of 5/29/12.
Recent Internet IPO Standout – LinkedIn
Averaging 10% Revenue / 2x EBITDA Upside Since IPO, Shares +137%

LinkedIn Share Daily Closing Price, 5/11-5/12

- 5/11 – IPO @ $45 Raised $353MM
- 8/11 – Q2
  Revenue $121MM, +124% Y/Y, 14% above consensus
  EBITDA $5MM, 5x consensus
- 11/11 – Q3
  Revenue $140MM, +129% Y/Y, 10% above consensus
  EBITDA $12MM, 2x consensus
- 2/12 – Q4
  Revenue $168MM, +105% Y/Y, 5% above consensus
  EBITDA $34MM, 62% above consensus
- 11/11 – Follow-on offering @ $71 per share, Raised $714MM
- 5/12 – Q1
  Revenue $188MM, +101% Y/Y, 5% above consensus
  EBITDA $38MM, 31% above consensus

Source: Yahoo Finance, Bloomberg, data as of 5/29/12.
A Key to Successful Financings / Wealth Creation – All Stakeholders in Same Boat, Rowing in Same Direction
The Value of a Business is the Present Value of Future Cash Flows

The Riddles:

1) Getting the numbers (financials) right for the Discounted Cash Flow (DCF) model;

2) Getting the macro + micro confidence levels + time horizons right for ‘the market.’
~2% of companies accounted for ~100% of net wealth creation of 1,720 Tech IPOs in USA (1980-2002).*

*The Technology IPO Yearbook: 9th Edition – 23 Years of Tech Investing, Morgan Stanley*
Tech Cycle of Change / Growth – Where are We Now?

THIS CYCLE OF TECH DISRUPTION IS MATERIALLY FASTER & BROADER THAN PRIOR CYCLES...
Outline

1) **Basic Stats** – Internet Growth Remains Robust, Rapid Mobile Adoption Still in Early Stages

2) **Re-Imagination** – of Nearly Everything

3) **Economy** – Mixed Trends, With Negative Bias

4) ‘**USA, Inc.**’ – A Lot to be Excited About in Tech, A Lot to be Worried about in Other Areas

5) **Bubble** – or Not?
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