BIG DATA and Social Media

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Overview

Disruptive Changes to the Enterprise

The path of the enterprise

Cloud
Social
Mobile
Big Data
Algorithms

next disruption?
Moore’s law is driving mobility

Smartphone 2009
60MHz Processor
256MB Memory
16/32 GB Storage
320x480 Display
$599

PC 2001
60MHz Processor
256 MB Memory
16/32 GB Storage
800 x 600
$999
Moore’s law continues with...
Mobile data traffic exploding

Global Mobile Data Traffic Growth / Applications
Video to reach more than 50 percent of mobile data traffic by 2011

VoIP traffic forecast to be 0.4% of all mobile data traffic in 2015

Web 2.0 goes mobile, social, viral...
Facebook as Social Platform
Facebook as Mobile Social Platform

Facebook, Google Maps and the Weather Channel are the top apps across smartphone platforms.

Click here to see the data
Groupon as Mobile Ecommerce not Social

Purchase, manage, and redeem Groupons directly from your mobile device.

Browse unbeatable deals on local adventures, and purchase with the touch of a button. Search nearby Groupons using GPS, and keep track of all your purchased Groupons by location, date, and expiration. And best of all? You save trees by using paperless redemption!
Consumer apps are in the Cloud

Cloud computing is a world where computing power, storage and applications are delivered over a public and/or private network.
Big Data: The Big Story of 2011
What’s new with Big Data?
The Intersection of Social Media and Big Data

From http://blogs.zdnet.com/Hinchcliffe
Turning Social Business Activities Into Strategic Intelligence

Fast Data  Big Analytics  Social BI

Engagement Cycle

Social Media Universe

real-time insight, domain-specific dashboards, etc.

From http://ebizq.net/blogs/enterprise by Dion Hinchcliffe
Information is not knowledge...

--Einstein
What can you do with Big Data?

- Solve Big Problems
- Make Customers Happy...
- While they spend more  AND
- Influence their social circles
- When  AND
- Where they play or work...
Solve Big Problems?
350 Million people = China will add one NYC a year from now till 2025
A Planet of Smarter Cities

In 2007, for the first time in history, the majority of the world’s population lived in cities – 3.3 billion. By 2050, city dwellers are expected to make up 70 percent of the Earth’s total population – 6.4 billion.
How could your smartphone help?

Crowdsourcing

Crowdsensing

A Planet of Smarter Cities

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Augmented Reality in NYC

New York Nearest Subway

One of the first augmented reality apps to go live in the iPhone AppStore. Forget boring 2D tube maps! Try this amazing new application that tells New Yorkers where their nearest subway station is via their iPhones video function.
The internet of parking spaces...

No More Squeezing into spaces...
Yo! Taxi... CabSense to the rescue

Data and routes from 90 Million trips help you predict where to stand on a rainy day...
Raising $150M for Haiti Relief...

Text "Haiti" to 90999 to donate. 100% of your $10 donation passes thru to @RedCross for Haiti relief. Your cell carrier keeps nothing.
Macro-level use of aggregate location data

**Smarter Cities:**
Urban planning—traffic to parking, Singapore public transportation, Netherlands traffic agencies for congestion control, emergency planning

Sense-networks—where to hail a taxi, Street bump—pothole detection using accelerometers.

**Retail business intelligence:**
shopping patterns, insights for promotions and advertising, granular intelligence and segmentation
Make Customers Happy...
While spending more...
While promoting your brand...
And influencing their friends...
Web 3.0...

Using massive amounts of personal data generated by Web 2.0 to deliver highly personal, customized experiences relevant to personal interests, social graphs and real-time location...

Reid Hoffman, founder of LinkedIn at SXSW 2011
Foursquare as Twitter + Location
Things to do with social graphs...

- LinkedIn Skills—find people, companies, job-related to each skill
- Waze—data about commute location and speed to deliver traffic advice
- Redfin—info to homebuyers
Big data + social + location

1. Big data + Personalization = Recommendation Engines
2. Gamification—Life as Game
3. Micropayments
4. Social Reputation Scores
5. Location-based Local commerce
70% LBS in consumer surplus

The value of the major levers increases to more than $800 billion by 2020

$ billion per annum

<table>
<thead>
<tr>
<th>End user</th>
<th>Lever</th>
<th>Revenue accrued to service providers</th>
<th>Quantifiable monetary value to end customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>GPS navigation (including smart routing based on real-time traffic)</td>
<td>39</td>
<td>500</td>
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<tr>
<td></td>
<td>People tracking (social networking and safety)</td>
<td>27</td>
<td>44–57</td>
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<tr>
<td></td>
<td>Location sharing on social community applications</td>
<td>5–10</td>
<td>n/a</td>
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<td></td>
<td>City/regional guide, neighborhood service search</td>
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<td>n/a</td>
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<td></td>
<td>Entertainment such as mobile gaming based on location</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td></td>
<td>Remote personal car safety/monitoring (e.g., OnStar)</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>Organizations</td>
<td>Geo-targeted mobile advertising¹</td>
<td>n/a</td>
<td>75–100</td>
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<td></td>
<td>Automatic toll collection based on mobile phone location</td>
<td>2</td>
<td>4–10</td>
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<tr>
<td></td>
<td>Optimized urban transport infrastructure planning</td>
<td>n/a</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Retail business intelligence based on location-related customer behavior (e.g., optimizing store layouts based on a shopper’s movement pattern)²</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
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Ex 31, page 94 McKinsey Report Big Data
Expected Enterprise Challenges

- Technology
- Privacy
- Competition over access to user identity
- Making mobile payment and commerce easier for the user—NFC, mobile billing, mobile wallet, P2P payment Paypal
- And the SMB merchant—Square, Groupon Mobile
- Mobile Economy—virtual goods and the real world
- Innovative business models to monetize value generated by network effects
Unexpected Enterprise Challenges

- IT Resistance and NIH from Structured Database Mgrs
- Big Data DNA—Where to find the talent & leadership? Maybe in China and India?
- Decision 2.0: Intuition/Experience vs. Analytics
- Finding “clue”
- Making Big Data as easy as Google search
- Putting Big Data in the hands of every employee that needs it, when they need it—Enterprise Mobile 3.0
Creativity is just connecting things. When you ask creative people how they did something, they feel a little guilty because they didn't really do it, they just saw something. It seemed obvious to them after a while. That's because they were able to connect experiences they've had and synthesize new things.

*Steve Jobs*
“The best way to predict the future is to create it...”