

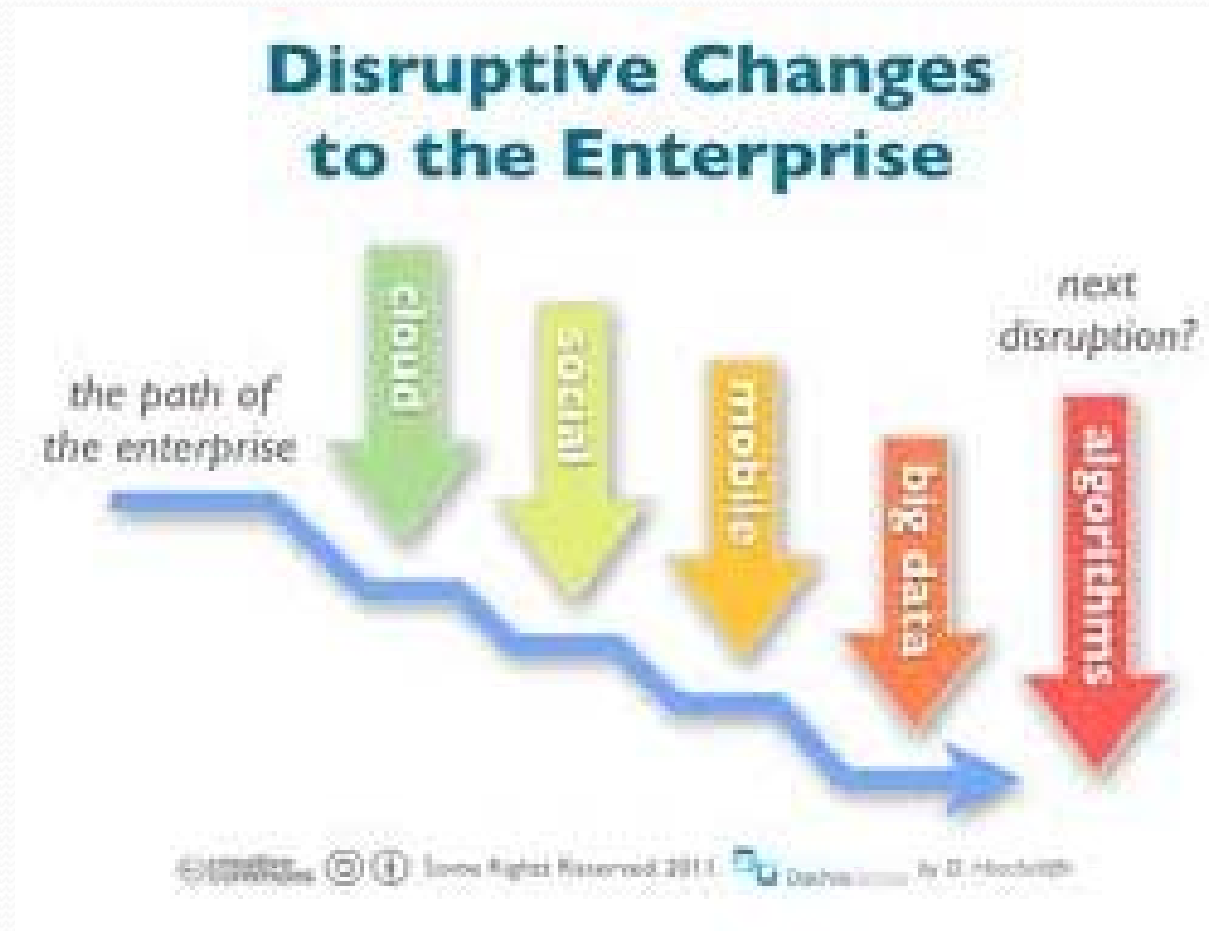
# BIG DATA and Social Media

Professor Amy Shuen

Expert Address Oct 13, 2011

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# Overview



# 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

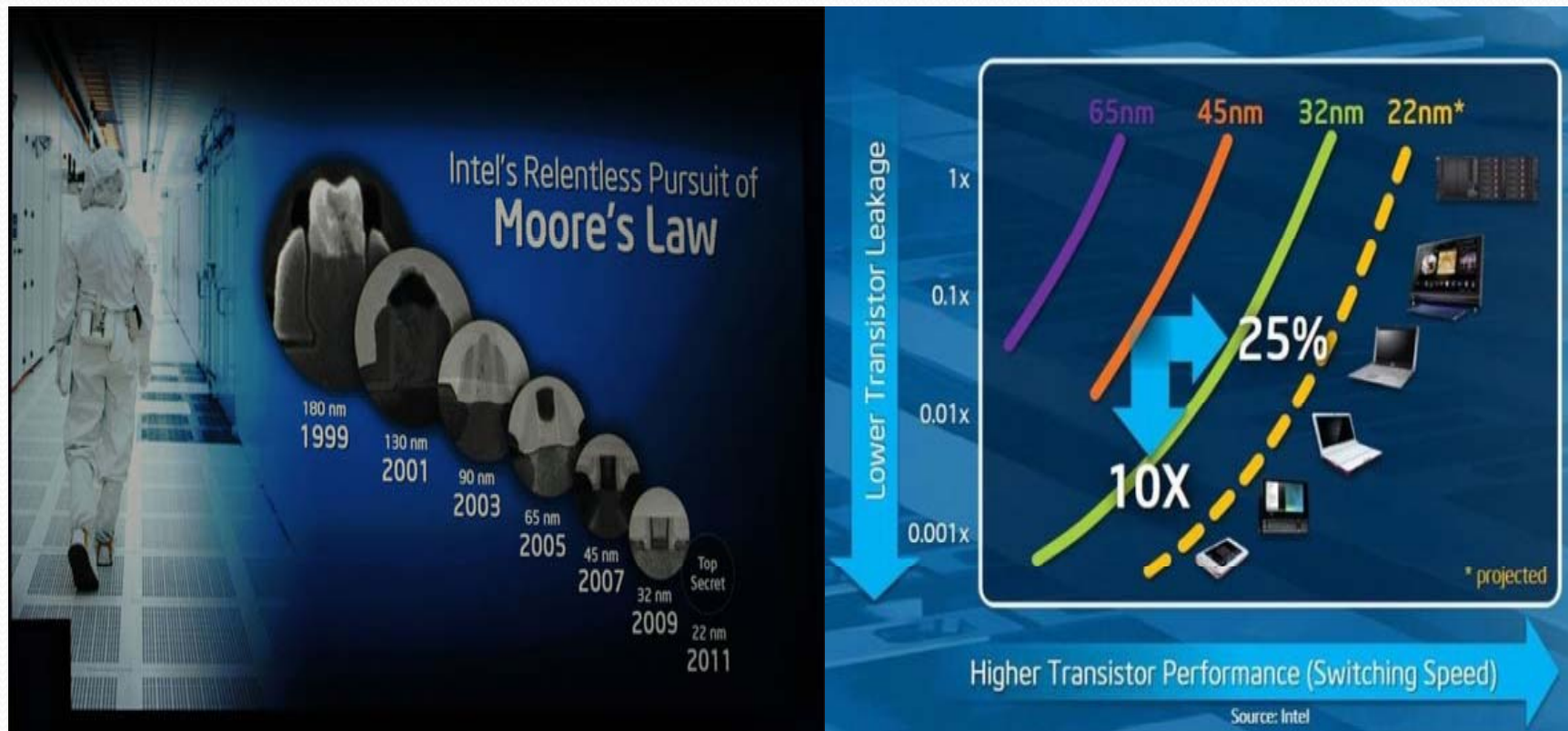
16/32 GB Storage

800 x 600

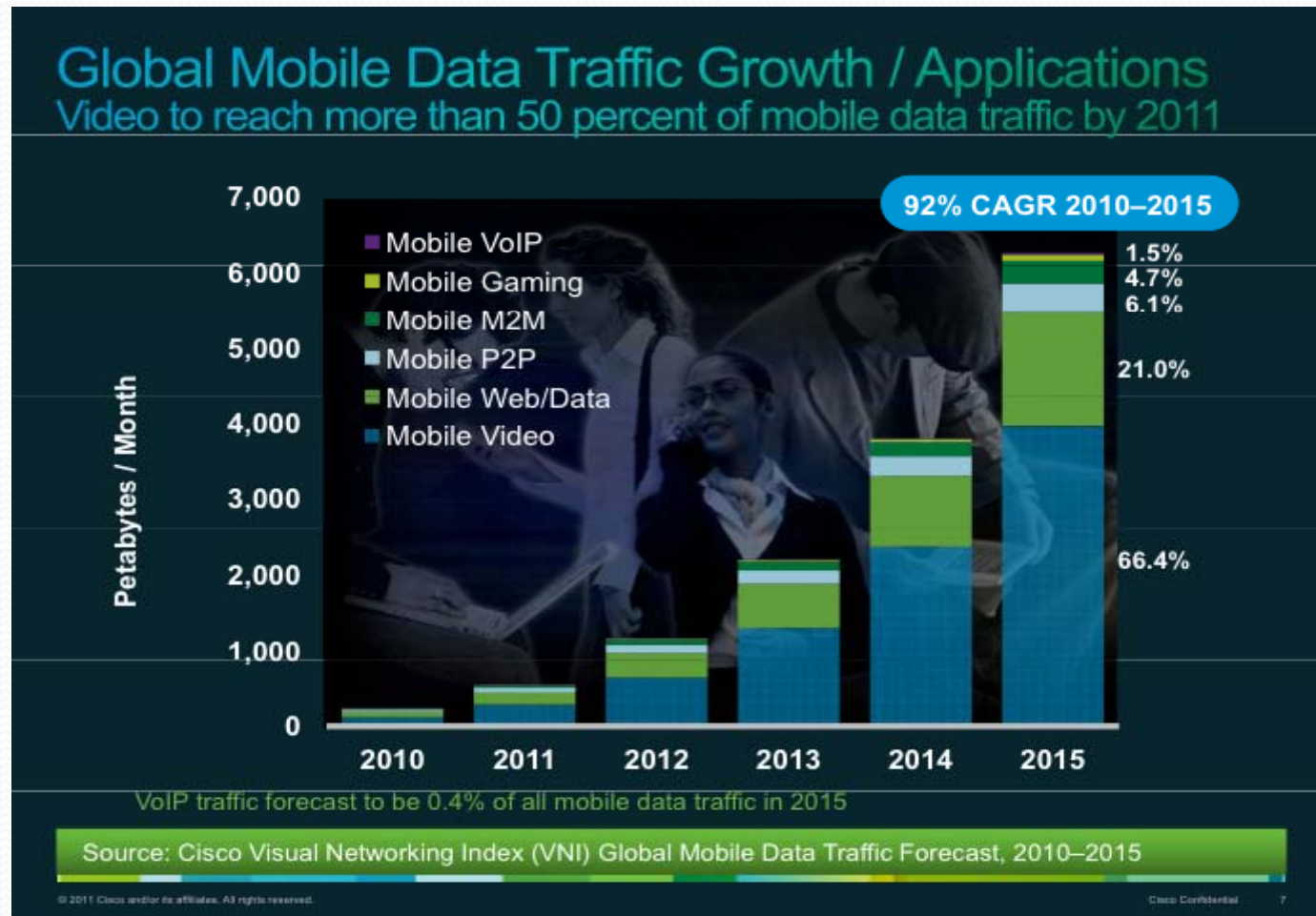
\$999



# Moore's law continues with...



# Mobile data traffic exploding



# Web 2.0 goes mobile, social, viral...

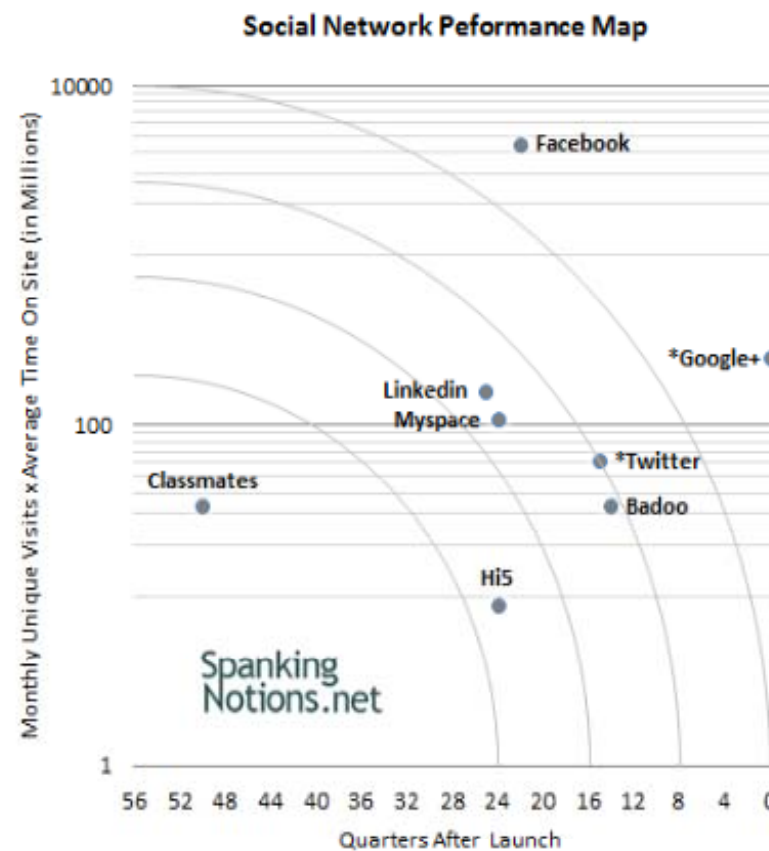


2005-----2007-----2009--→

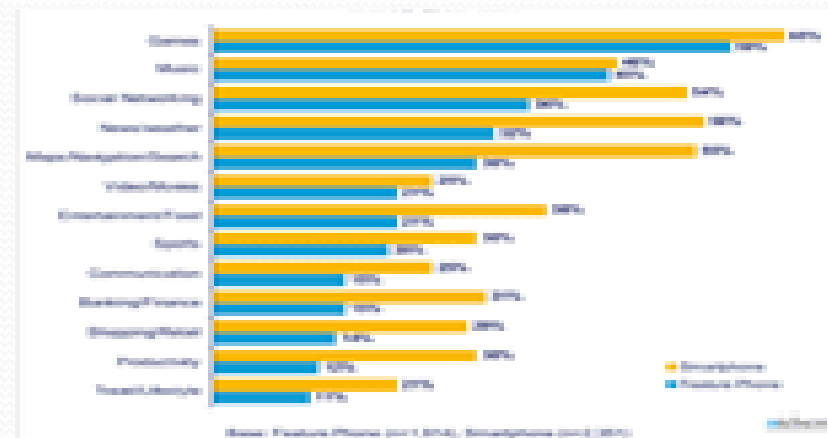
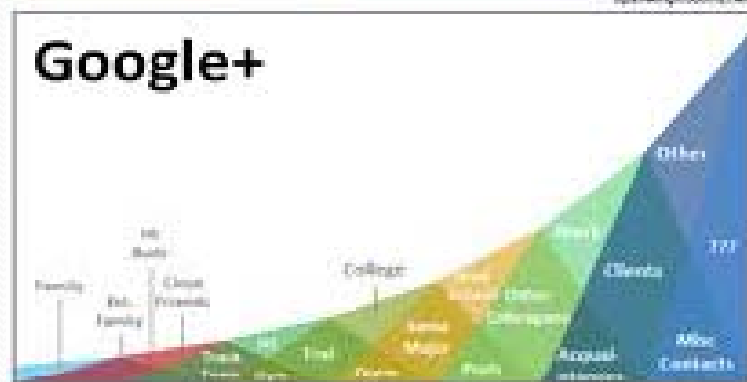
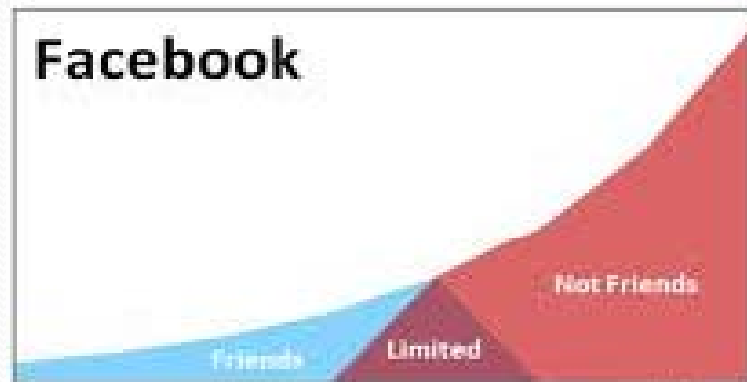
# Facebook as Social Platform



Data from Tim Draper presentation on Viral Distribution

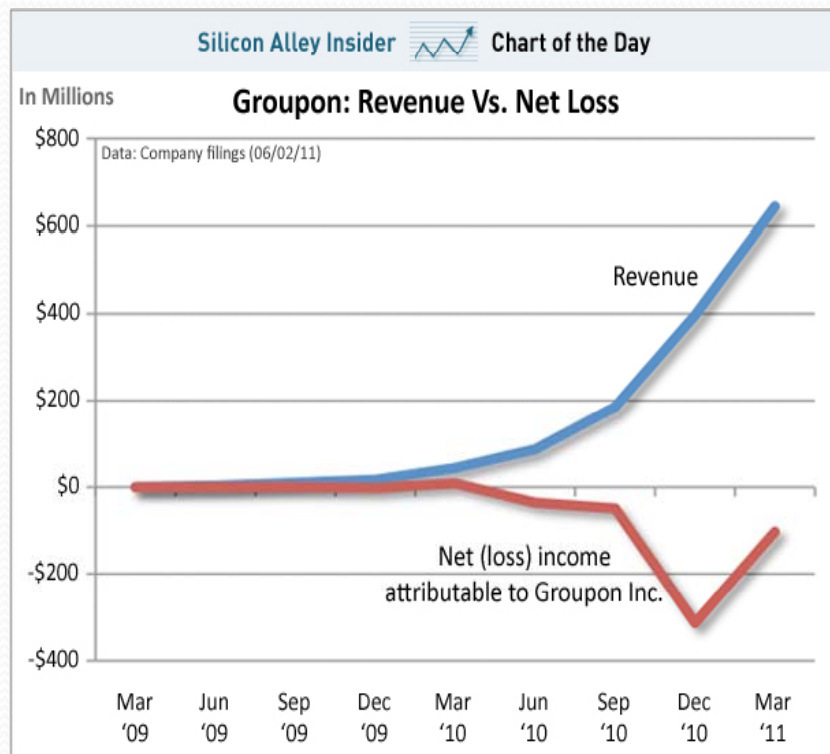


# Facebook as Mobile Social Platform



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



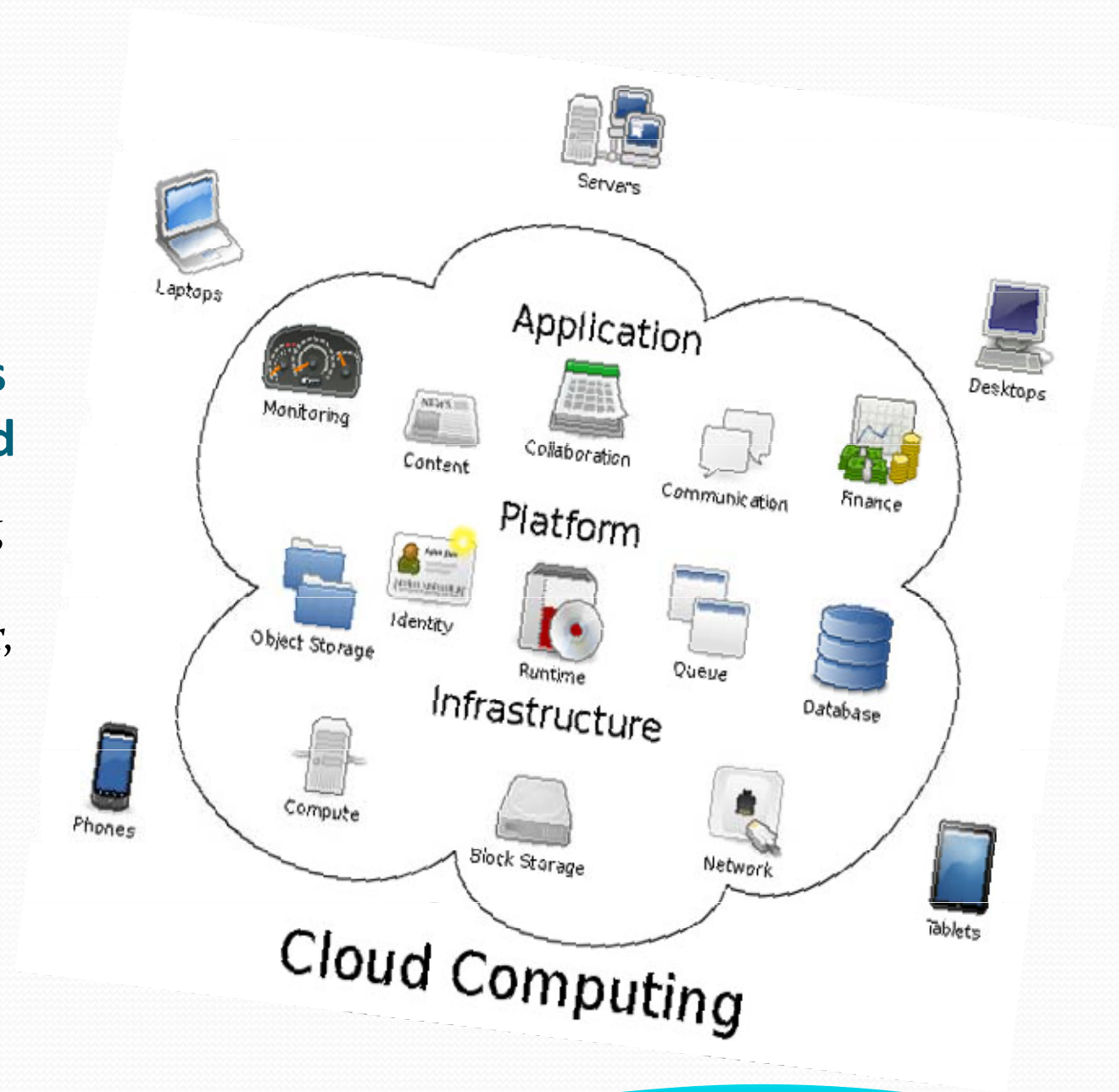
Purchase, manage, and redeem  
Groupons directly from your  
mobile device.

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

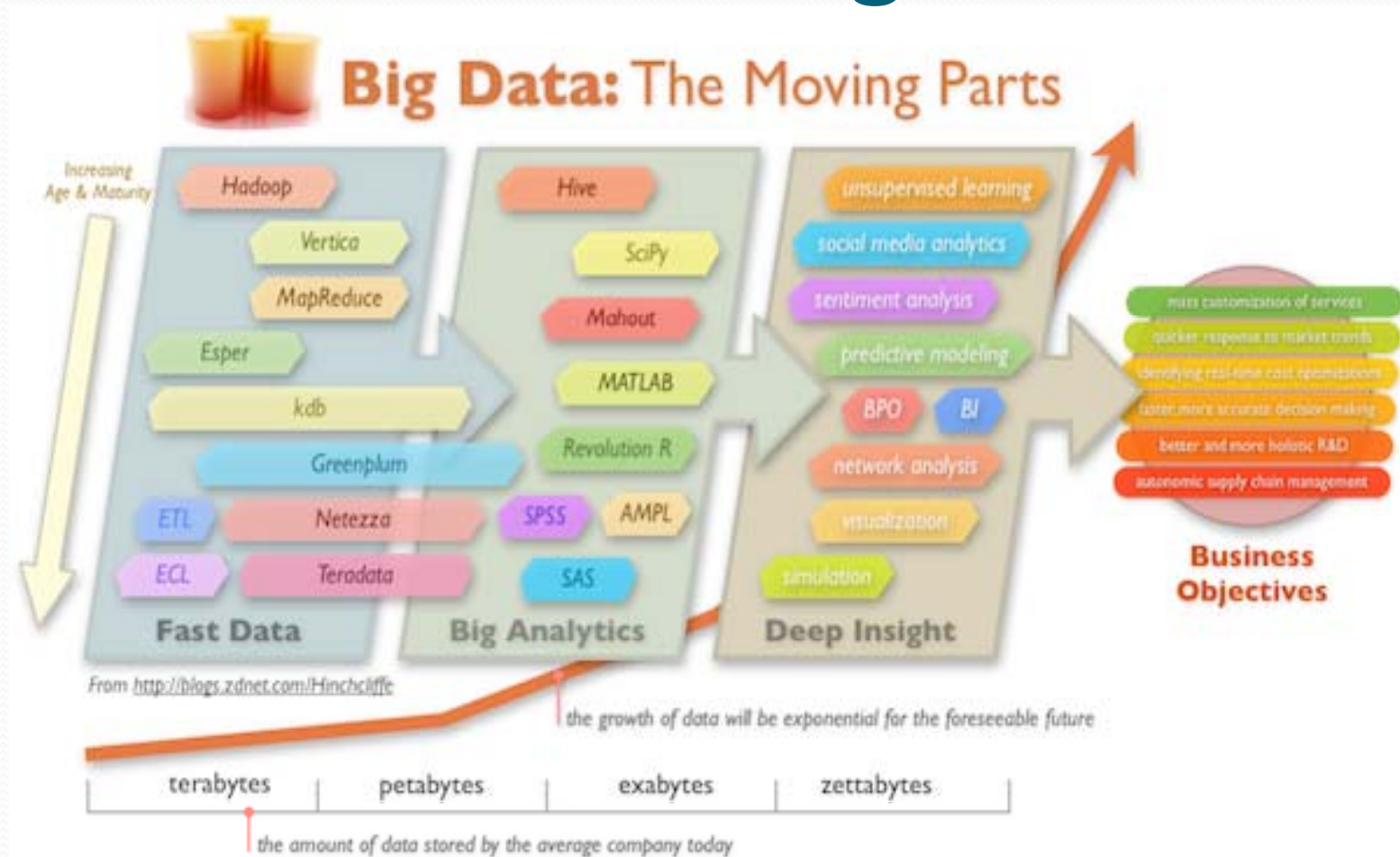


Business Insider Google Image



# Big Data: The Big Story of 2011

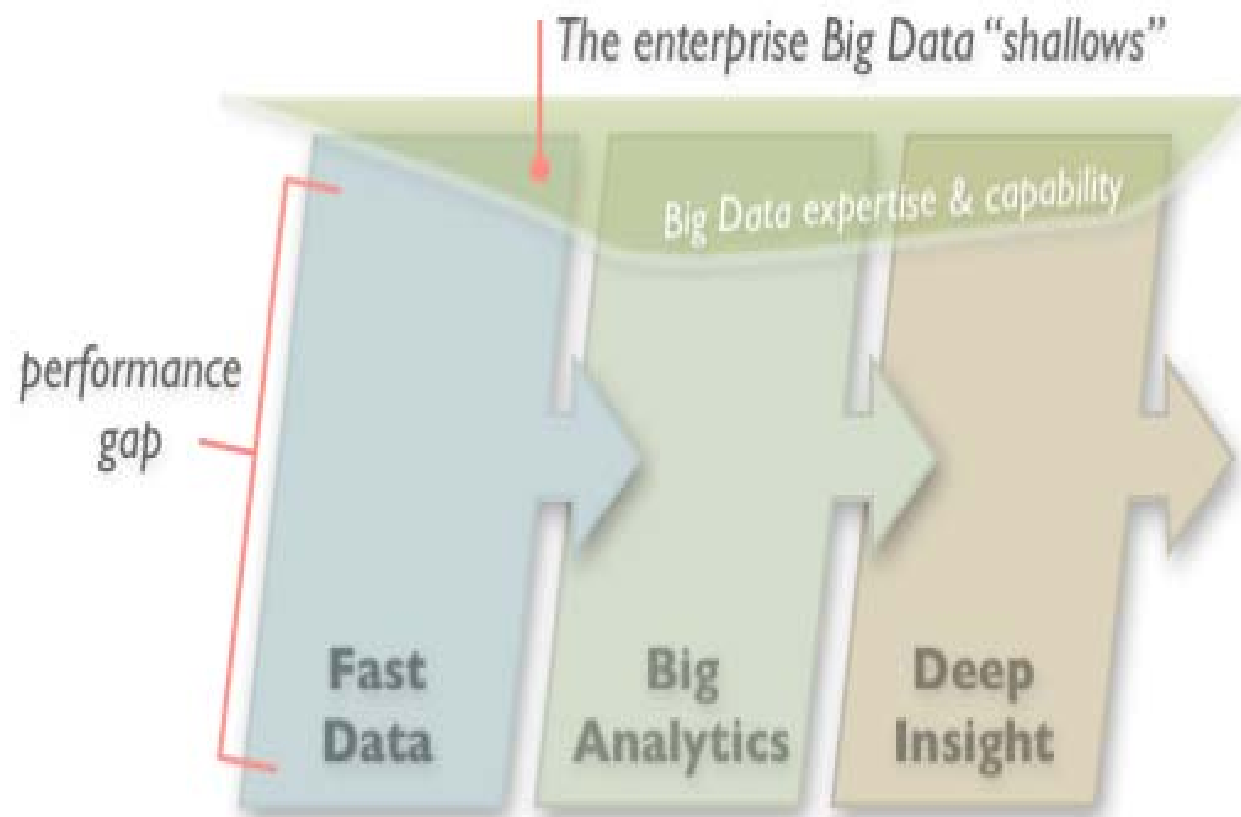
# What's new with Big Data?



## The Intersection of Social Media and Big Data



From <http://blogs.zdnet.com/Hinchcliffe>



From <http://blogs.zdnet.com/Hinchcliffe>

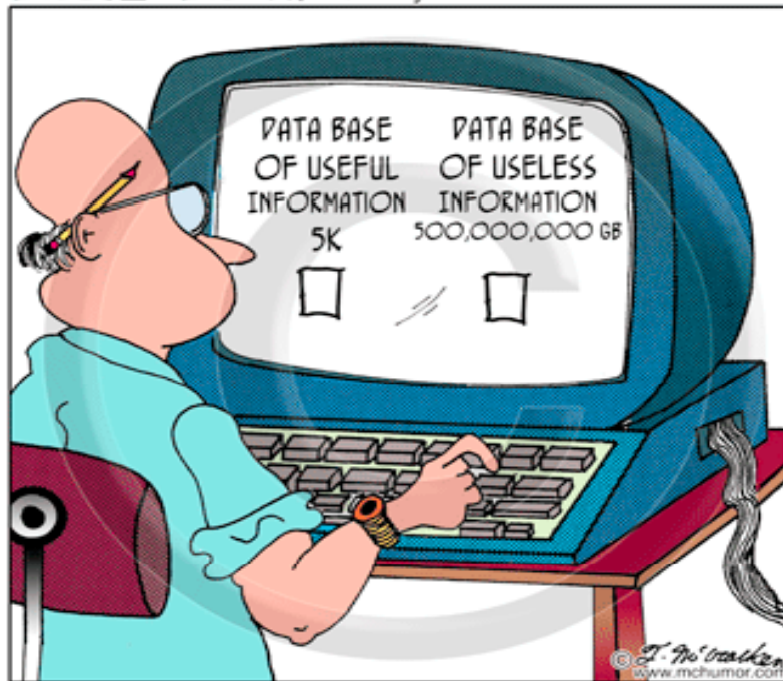
## Turning Social Business Activities Into Strategic Intelligence



# Information is not knowledge...

--Einstein

**McHUMOR.com** by T. McCracken



©T. McCracken mchumor.com





# 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...

The background of the slide is a solid blue color. At the top, there are several wavy, horizontal lines in shades of blue and teal, creating a sense of movement or a horizon line. The text "Solve Big Problems?" is centered in the upper half of the slide.

# 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?

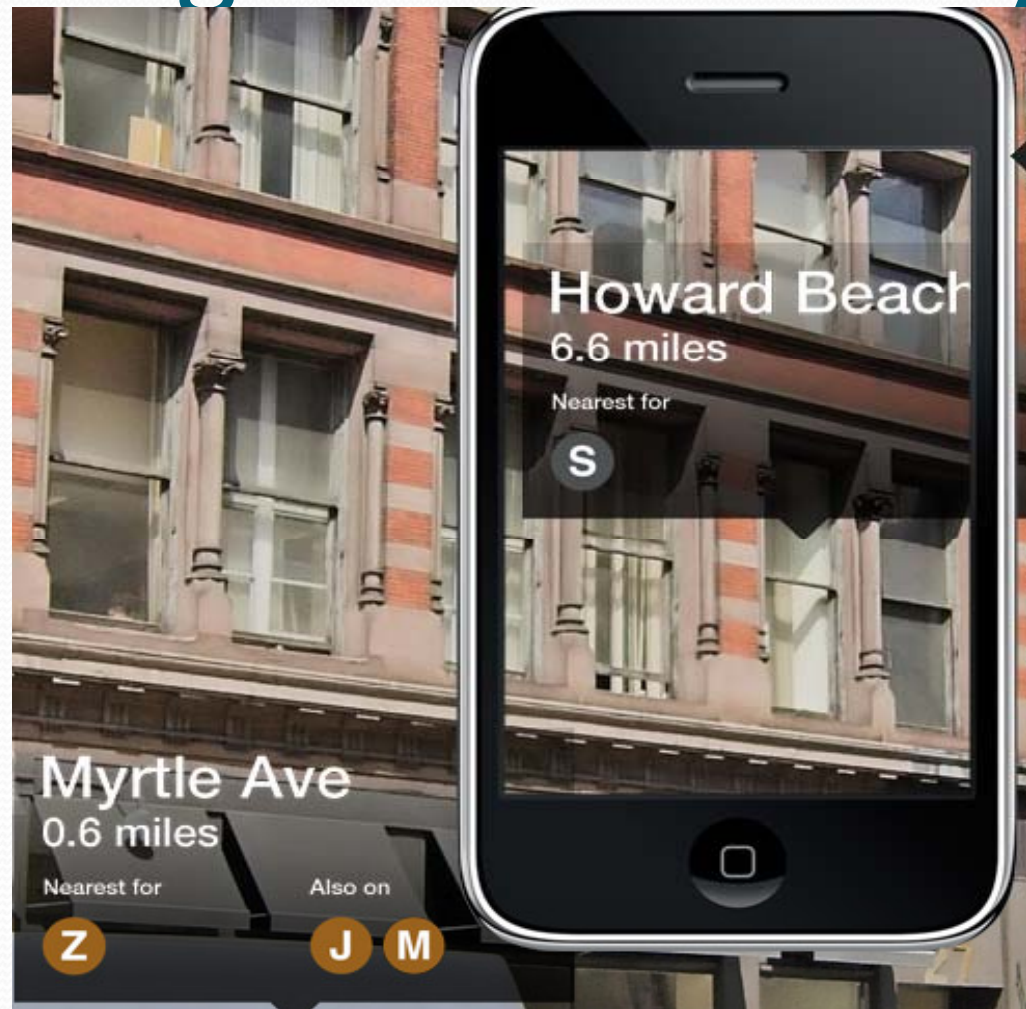


Crowdsensing

## Crowdsourcing



# Augmented Reality in NYC



Home Apps About Press Jobs Contact

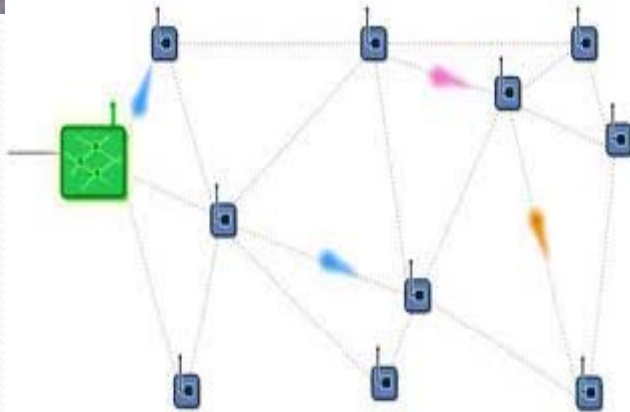


## New York Nearest Subway

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.

about 19 hours ago from web

Reply Retweet

## US relief donations: speeding up

**Haiti earthquake**  
January 2010  
(first four days)

**\$150 million**

**Hurricane Katrina**  
August 2005  
(first four days)

**\$108**

**Asian tsunamis**  
December 2004  
(first three days)

**\$30**

*In the initial days after the earthquake, Americans donated more money faster to Haiti than for any other natural disaster.*

SOURCE: Chronicle of Philanthropy

RICH CLABAUGH/STAFF



# 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

The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in shades of light blue and cyan, creating a sense of movement or a horizon line. The rest of the background is a uniform, slightly darker blue.


# Make Customers Happy...

The background of the slide is a solid blue color. At the top, there are several wavy, horizontal lines in shades of blue and teal, creating a sense of movement or a horizon line. The text "While spending more..." is centered in the upper half of the slide.

While spending more...

The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in shades of light blue and cyan, creating a sense of movement or a horizon line. The text is positioned in the upper left quadrant.

While promoting your  
brand...

The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in shades of light blue and cyan, creating a sense of movement or a horizon line. The text is positioned in the upper left quadrant.

And influencing their  
friends...



# Web 3.0...

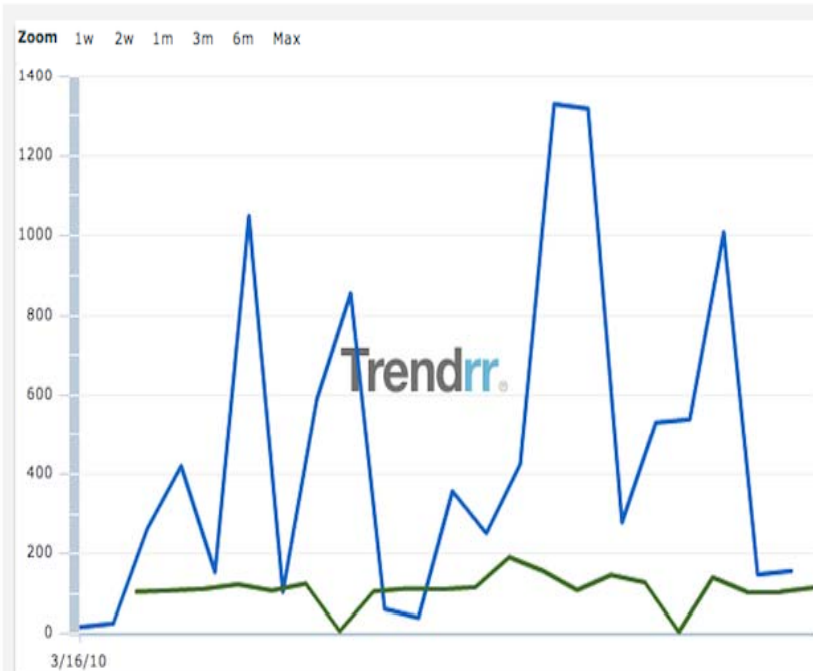
Using massive amounts of personal data generated by Web 2.0 to deliver highly personal, customized experiences relevant to personal interests ,social graphs and real-time location...

Reid Hoffman, founder of LinkedIn at SXSW  
2011

# Foursquare as Twitter + Location



4sq.com vs. gowal.la (Matching Twitter Posts per Hour)



4sq.com

Matching Twitter Posts per Hour [View Data Set](#)

+42.34 %

Start Value: 262.0 End Value: 156.0

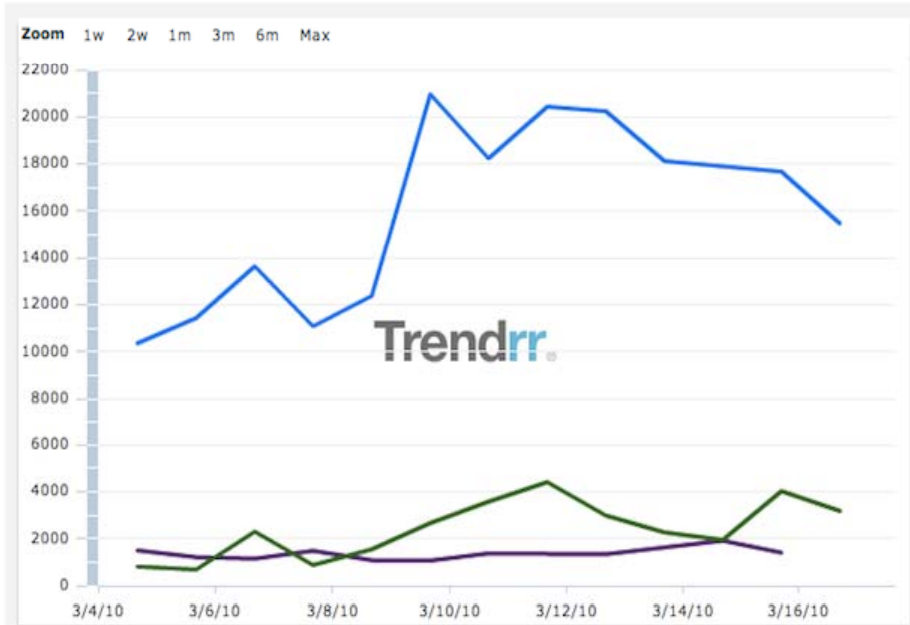
gowal.la

Matching Twitter Posts per Hour [View Data Set](#)

+6.74 %

Start Value: 104.0 End Value: 114.0

Foursquare vs. Loopt vs. Gowalla (Matching Twitter Posts per Day)



foursquare

Matching Twitter Posts per Day [View Data Set](#)

+64.31 %

Start Value: 10355.0 End Value: 15480.0

loopt

Matching Twitter Posts per Day [View Data Set](#)

+24.81 %

Start Value: 1505.0 End Value: 1404.0

gowalla

Matching Twitter Posts per Day [View Data Set](#)

+218.68 %

Start Value: 820.0 End Value: 3181.0



# 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



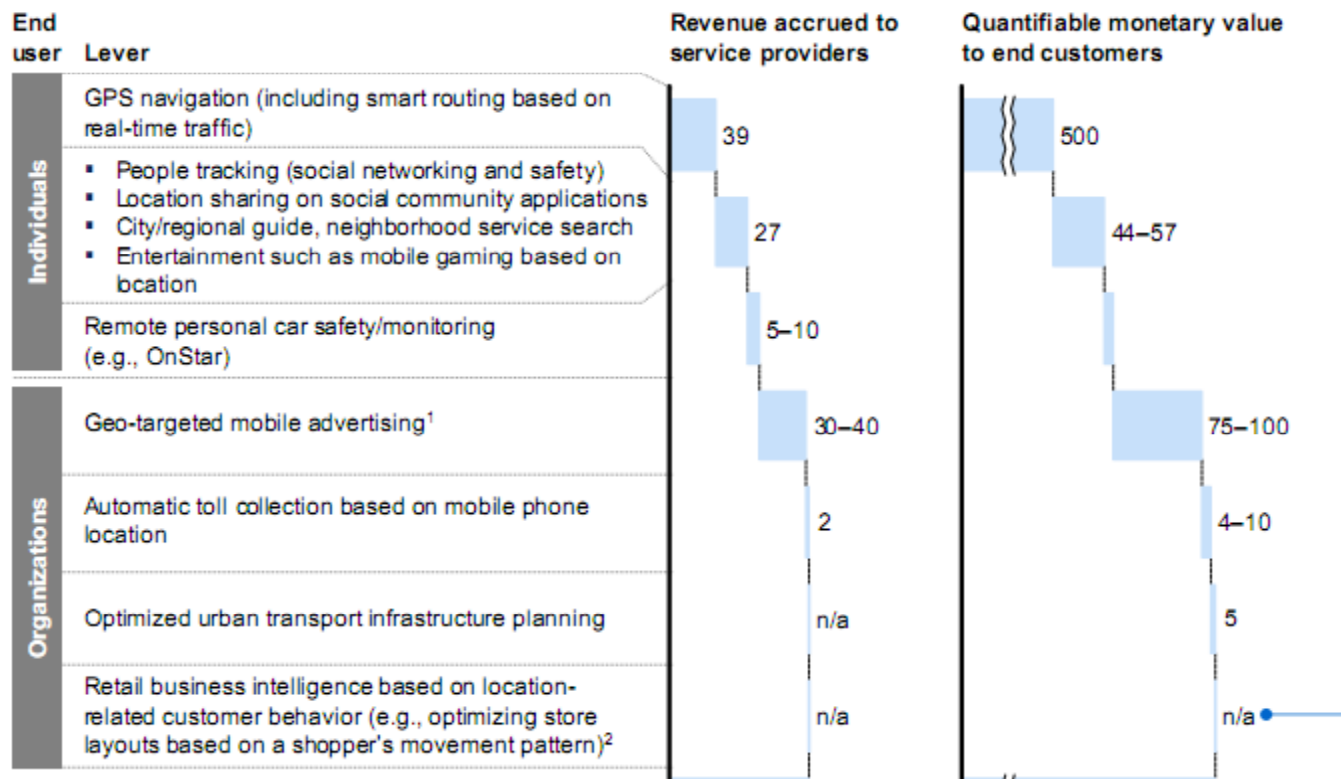
# Big data + social + location

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



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

# PETER DRUCKER



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