

The Aston Group™

The Age of Digital Enlightenment

September 2011



The world has changed



What if we don't return to 'business as usual'?

Widespread Economic restructuring continues

Eye on the Market | September 6, 2011

J.P.Morgan

Topics: The debt crisis in the European Monetary Union as seen by a 9-year old, and US recession risks
The political impasse in Europe: who should pay for current and future sovereign/bank bailouts?

Key: Arrows denote where each entity would shift the burden of bailout costs

With some interesting outliers

Companies are growing at an unprecedented rate, even at scale



So why is this happening?

Software is reshaping industries

"Back in 1994, very few people would have predicted that the largest bookseller in the world would be a software company."

Ben Horowitz

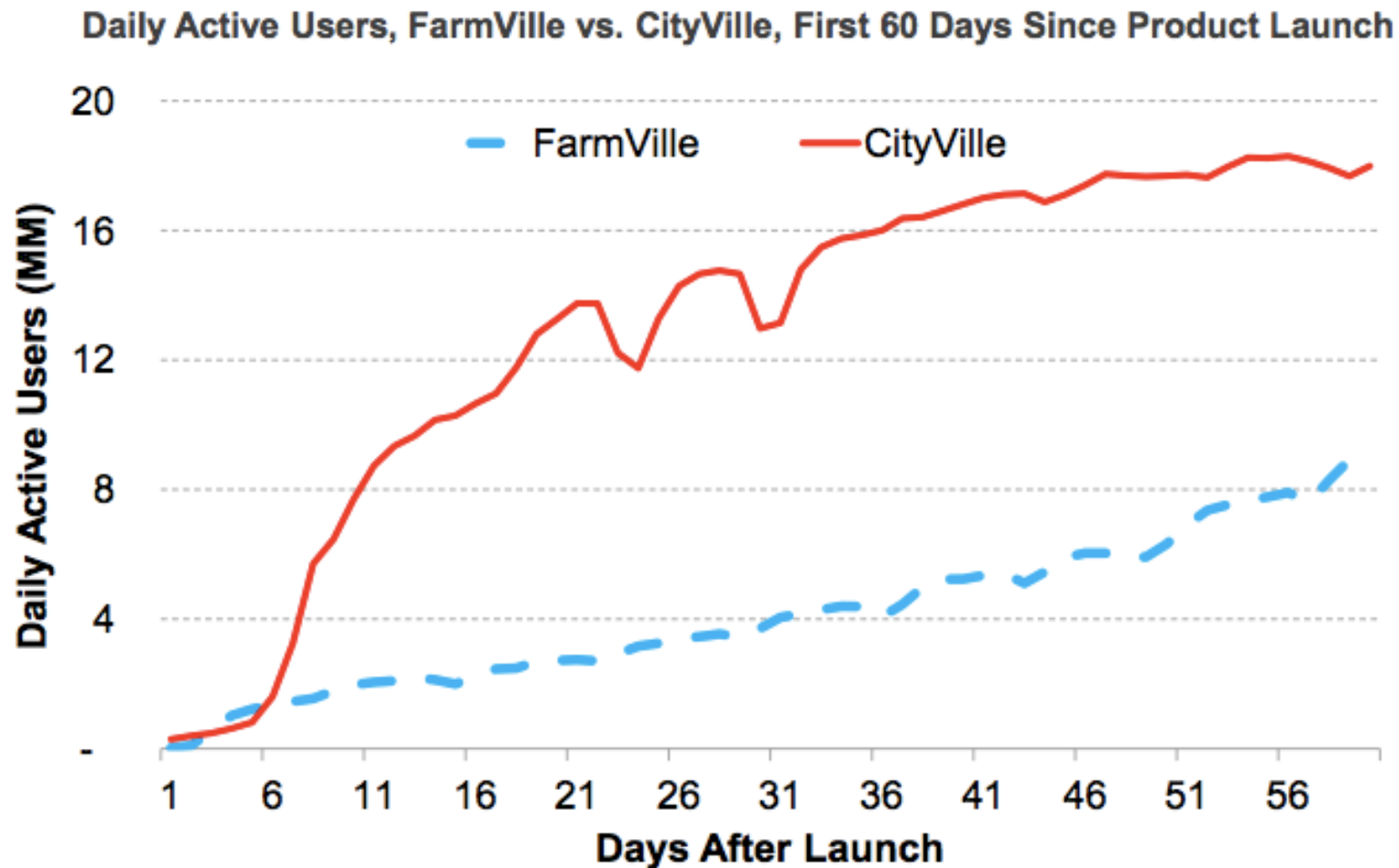
“Software is eating the world” Mark Andressen

Industry	Eaten By Software From:
Music	Apple/ Spotify
Radio	Pandora
Magazines / News	The Internet
Animated Film	Pixar
Direct Marketing	Google
Coupons / Local Commerce	Groupon / Living Social
DVD / Video	Netflix / YouTube
Tickets	Eventbrite
Travel Agents	Expedia / Kayak / Hipmunk
Photos	Flickr / Picasa
Mail / Fax	Email providers / efax / HelloFax
Video Games	Zynga / Popcap

We're at the beginning of a era for social Internet innovators who are re-imagining and re-inventing a Web of people and places, looking beyond documents and websites.

-John Doerr, Partner, KPCB

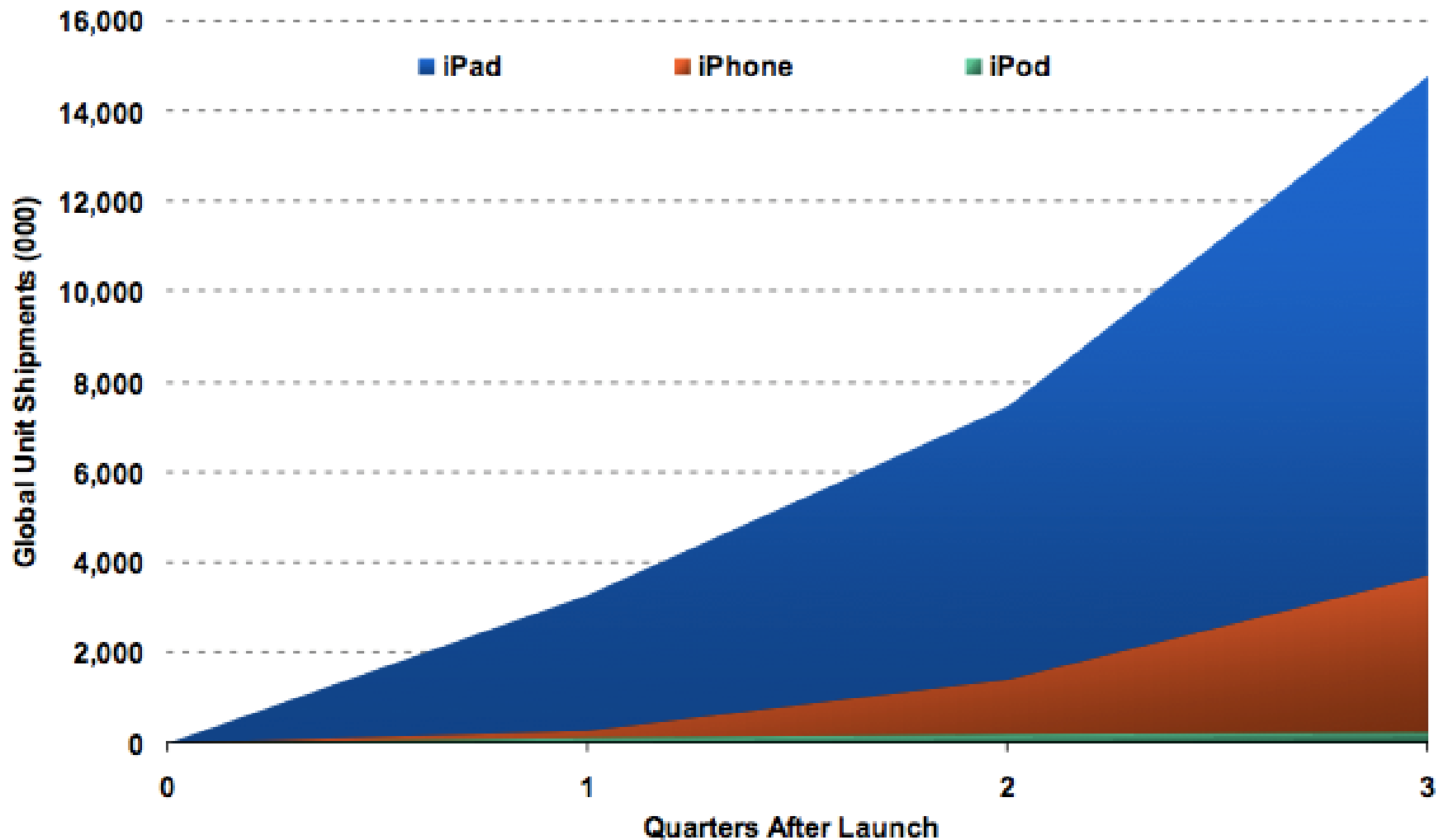
Social connections allow phenomenal scaling



This assists both acquisition and retention

But the growth trajectory of mobile devices embarrasses everyone

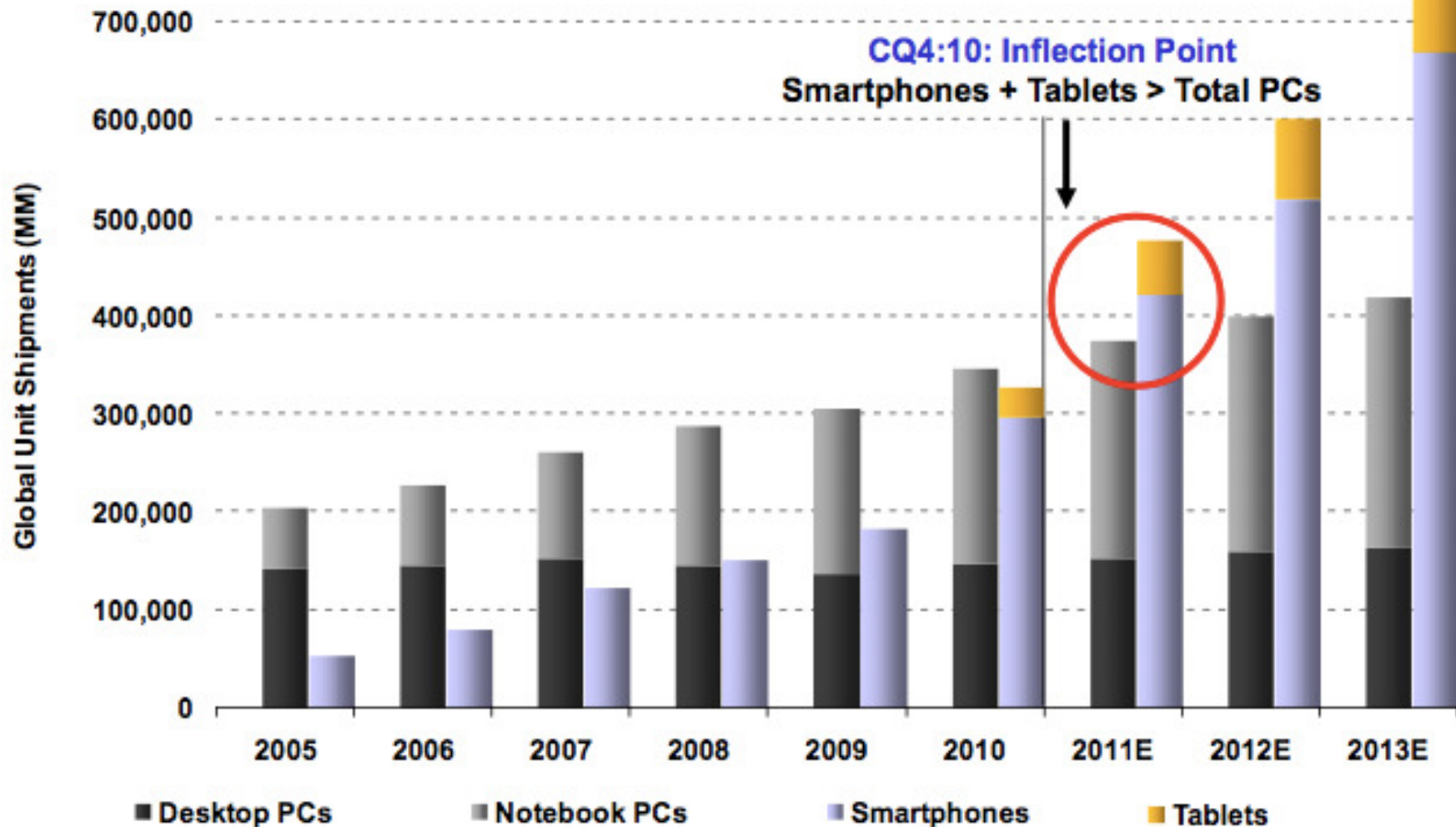
First 3 Quarters Cumulative Unit Shipments, iPod vs. iPhone vs. iPad



Something very special is happening

And this is not just Apple specific....

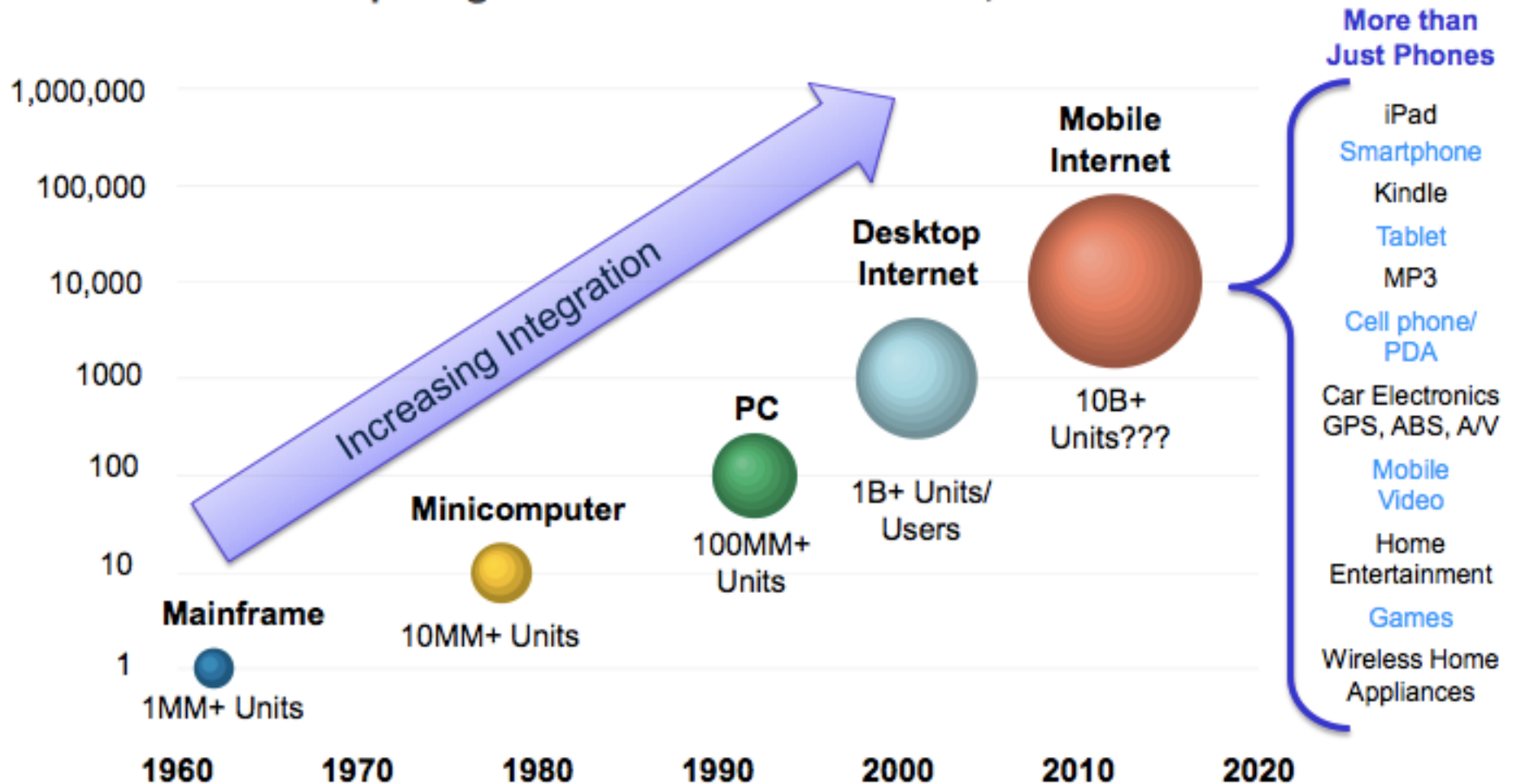
Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones + Tablets, 2005-2013E



We are entering the era of the Post PC consumer

And we are now entering the next stage of growth

Computing Growth Drivers Over Time, 1960-2020E

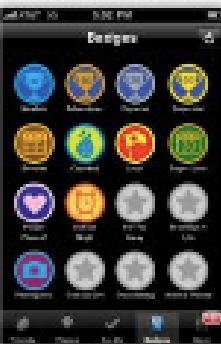


So what will this mean?

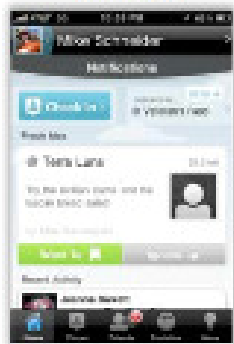
The combination of social & mobile will be explosive

Location Sharing

FourSquare



Whrrl

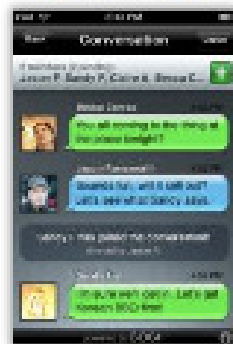


Communication

Twitter



TextPlus



TextFree

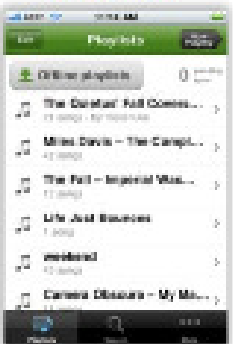


Music Sharing

Shazam



Spotify



FB Connect for Mobile – Built in Friend Connectivity, Share, Virality

Invite Friends



Share



Feed



This will present entirely new models of use

- **Location-Based Services** – Enable real-time physical retail / service opportunities
- **Transparent Pricing** – Instant local + online price comparison could disrupt retailers
- **Discounted Offers** – Deep discounts drive foot traffic to local retailers
- **Immediate Gratification** – OTA (over-the-air) instant digital product + content delivery

Location-Based Services
Shopkick iPhone App
Finds deals and offers in your area



Transparent Pricing
ShopSavvy Android App
Comparison shopping among online + local stores



Discounted Offers
Groupon iPhone App
Local Services
Up to 90% Off



Immediate Gratification
iTunes Store on iPhone
Music / video / apps delivered wirelessly



This will change commerce and retail

The Post PC era will provide some interesting opportunities

- **This time it's personal:** The web is ubiquitous, interface options will explode and it's role in life becomes near constant
- **The Honeymoon period is over:** Digital will be taken for granted, but the relationship will be much more tactile
- **Time for fun:** Digital will become intrinsic to our entertainment, via device shifting and new entertainment forms
- **Right here, Right now:** Computing power needs to be ready for you, on call
- **Dr. Smartphone:** With the rise of the Quantified Self, what is the impact on health and medicine, and the movement of preventative medicine
- **Moore's law gets another shot of steroids:** The demands this will place of processing power, miniaturisation, data storage, bandwidth will create a need 'space race' in these areas
- **The intersection between Social/Local/Mobile:** This throws up new questions on the structure of friendships, physical vs. virtual and multichannel coordination

It's an area blessed with many possibilities, no certainties but inevitable change and guaranteed excitement

There are a number of big issues to tackle

- **Payment**
- **Platform**
- **Tracking**
- **Battery life**
- **Voice vs. Data**
- **Data costs**
- **What complements & what replaces behaviour on other devices?**
- **The boundaries between real & virtual**
- **What is a digital device?**

And interesting software requires interesting problems

So what do you do?

