

INTERNET TRENDS

@ STANFORD – BASES

12/3/2012

Mary Meeker



Outline

- 1) Basic Stats – Internet Growth Remains Robust, Rapid Mobile Adoption Still in Early Stages**
- 2) Re-Imagination – of Nearly Everything**
- 3) Asset-Light Generation – From Hand to Cloud & Back...Rise of the Sharing Economy**
- 4) ‘USA, Inc.’ – A Lot to be Excited About in Tech, a Lot to be Worried about in Other Areas**

BASIC STATS – INTERNET GROWTH REMAINS ROBUST, RAPID MOBILE ADOPTION STILL IN EARLY STAGES

INTERNET USERS

2.4B Global Internet Users in 2012* – 8% Y/Y Growth*, Driven by Emerging Markets

Rank	Country	2008-2012 Internet User Adds (MMs)	2012 Internet Users (MMs)	Y/Y Growth	Population Penetration
1	China	282	538	10%	40%
2	India	88	137	26	11
3	Indonesia	39	55	58	23
4	Iran	35	42	205	55
5	Russia	33	70	6	49
6	Nigeria	31	48	15	30
7	Philippines	28	34	32	35
8	Brazil	27	88	6	45
9	Mexico	19	42	9	37
10	USA	18	244	3	78
11	Argentina	17	28	57	68
12	Egypt	17	30	11	38
13	Colombia	14	25	39	54
14	Turkey	13	35	17	47
15	Vietnam	12	31	7	35
Top 15		673	1,447	15%	34%
World		902	2,406	8%	34%

Note: *Data as of 6/12, 2.4B global Internet users and 8% Y/Y growth rate based on the latest available data.
Source: United Nations / International Telecommunications Union, internetworkworldstats.com.

MOBILE USERS

1.1B Global Smartphone Subscribers, 42% Growth, Q4:12 – @ Only 17% of Mobile Subscribers

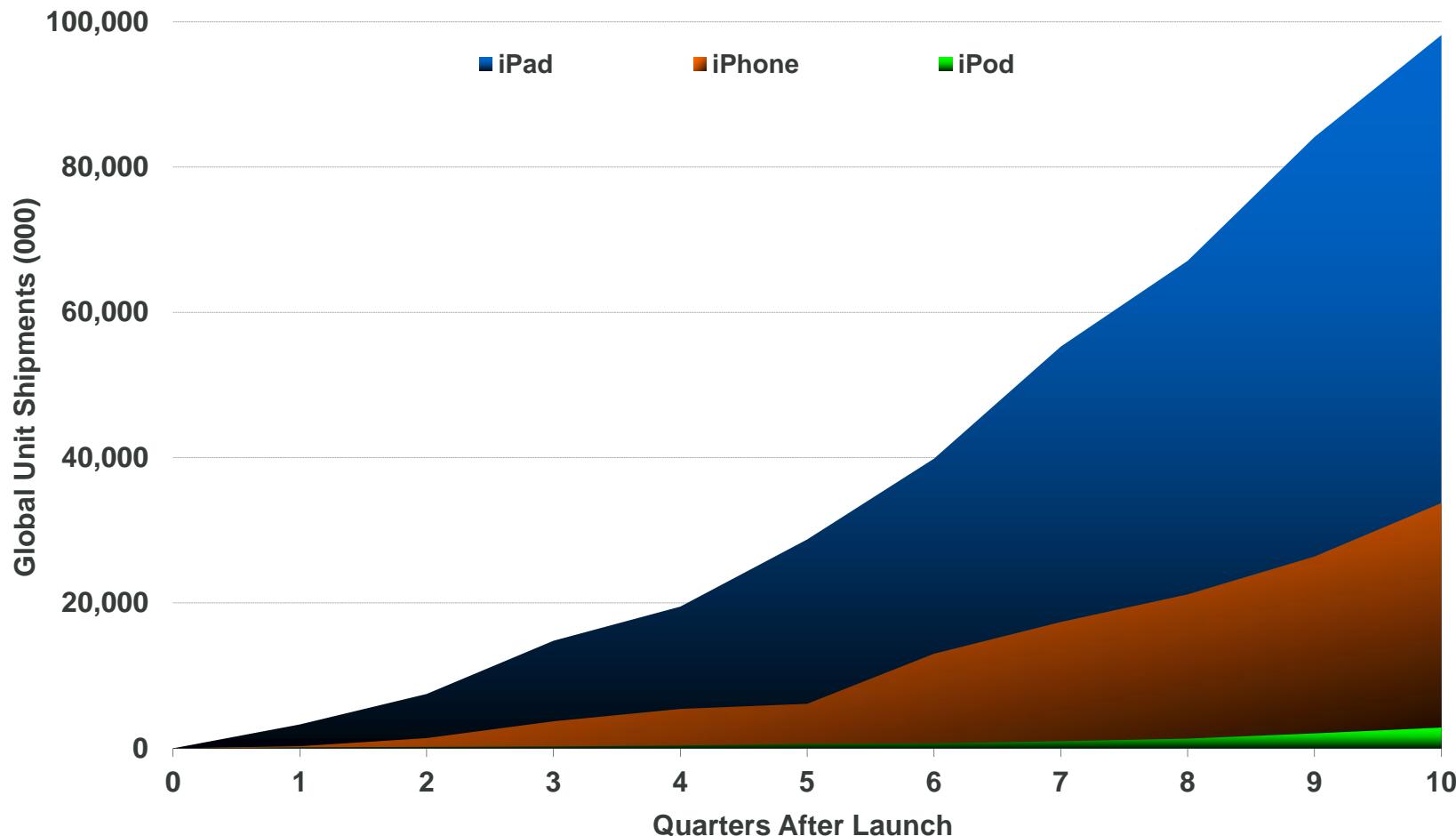
Rank	Country	Q4:12 Smartphone Subs (MM)			Smartphone as % of Total Subs			Smartphone Sub Y/Y Growth			Rank	Country	Q4:12 Smartphone Subs (MM)			Smartphone as % of Total Subs		
		Smartphone Subs (MM)	Total Subs	Sub Y/Y Growth	Smartphone Subs (MM)	Total Subs	Sub Y/Y Growth	Smartphone Subs (MM)	Total Subs	Sub Y/Y Growth			Smartphone Subs (MM)	Total Subs	Sub Y/Y Growth	Smartphone Subs (MM)	Total Subs	Sub Y/Y Growth
1	China	270		24%		50%					16	Saudi Arabia	15		31%		38%	
2	USA	172		48		50					17	Philippines	15		14		38	
3	Japan*	78		65		11					18	Mexico	15		14		55	
4	Brazil	55		20		35					19	Thailand	14		17		43	
5	India	44		4		52					20	Turkey	13		19		52	
6	UK	35		45		31					21	Malaysia	12		32		23	
7	Korea	32		59		35					22	South Africa	11		18		26	
8	Indonesia	27		9		36					23	Argentina	11		19		55	
9	France	26		38		33					24	Netherlands	9		47		37	
10	Germany	25		23		19					25	Poland	9		16		30	
11	Russia	22		9		44					26	Sweden	8		54		24	
12	Spain	18		30		14					27	Egypt	7		8		40	
13	Italy	16		19		28					28	Iran	7		8		53	
14	Australia	16		50		44					29	Taiwan	7		24		80	
15	Canada	15		55		38					30	Hong Kong	6		48		48	

Global Smartphone Stats: Subscribers = 1,142MM Penetration = 17% Growth = 42%

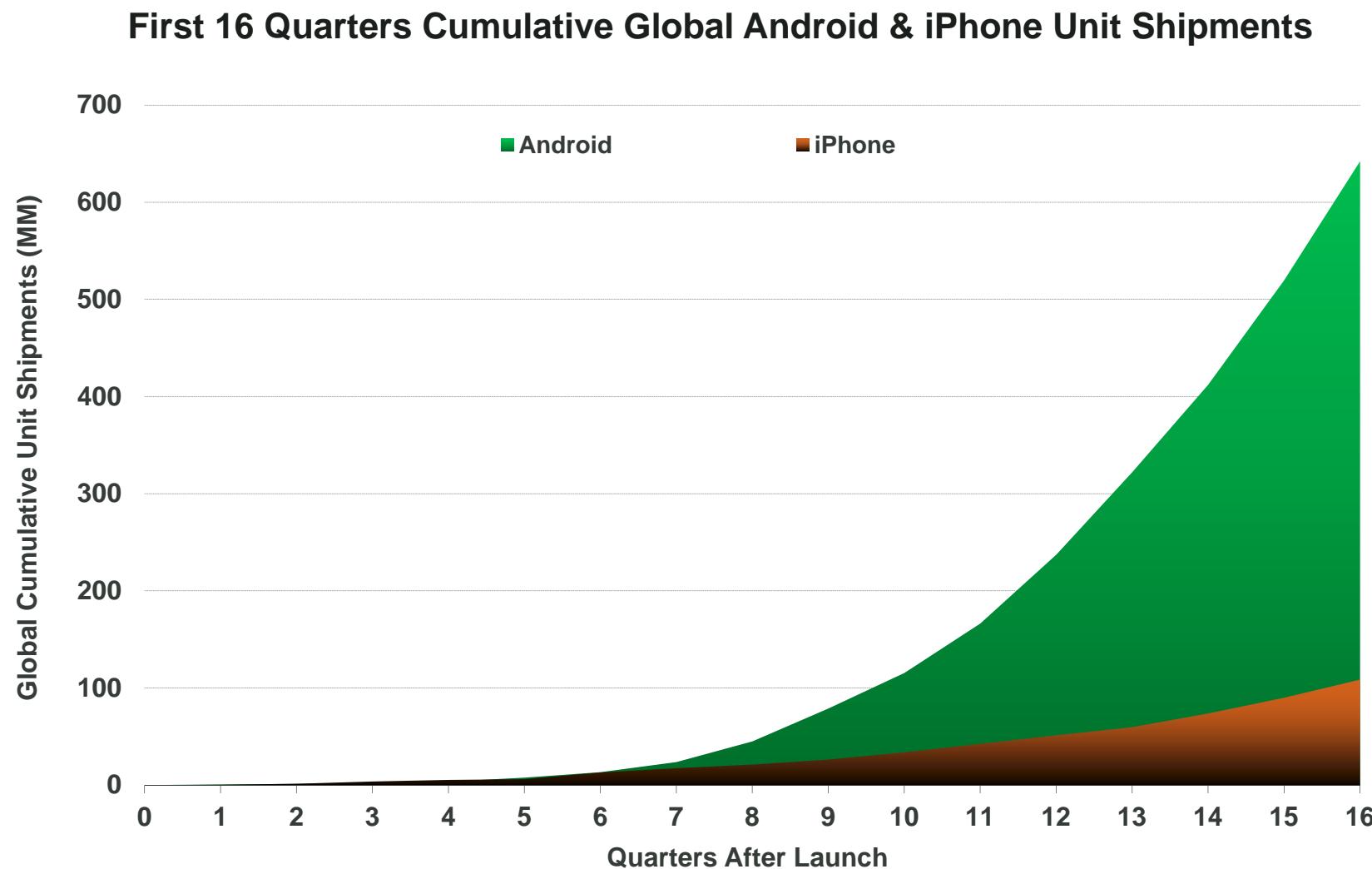
MODERN MOBILE DEVICE EVOLUTION

iPods Changed Media Industry...iPhones Ramped Even Faster...iPad Growth (3x iPhone) Leaves “Siblings” in Dust

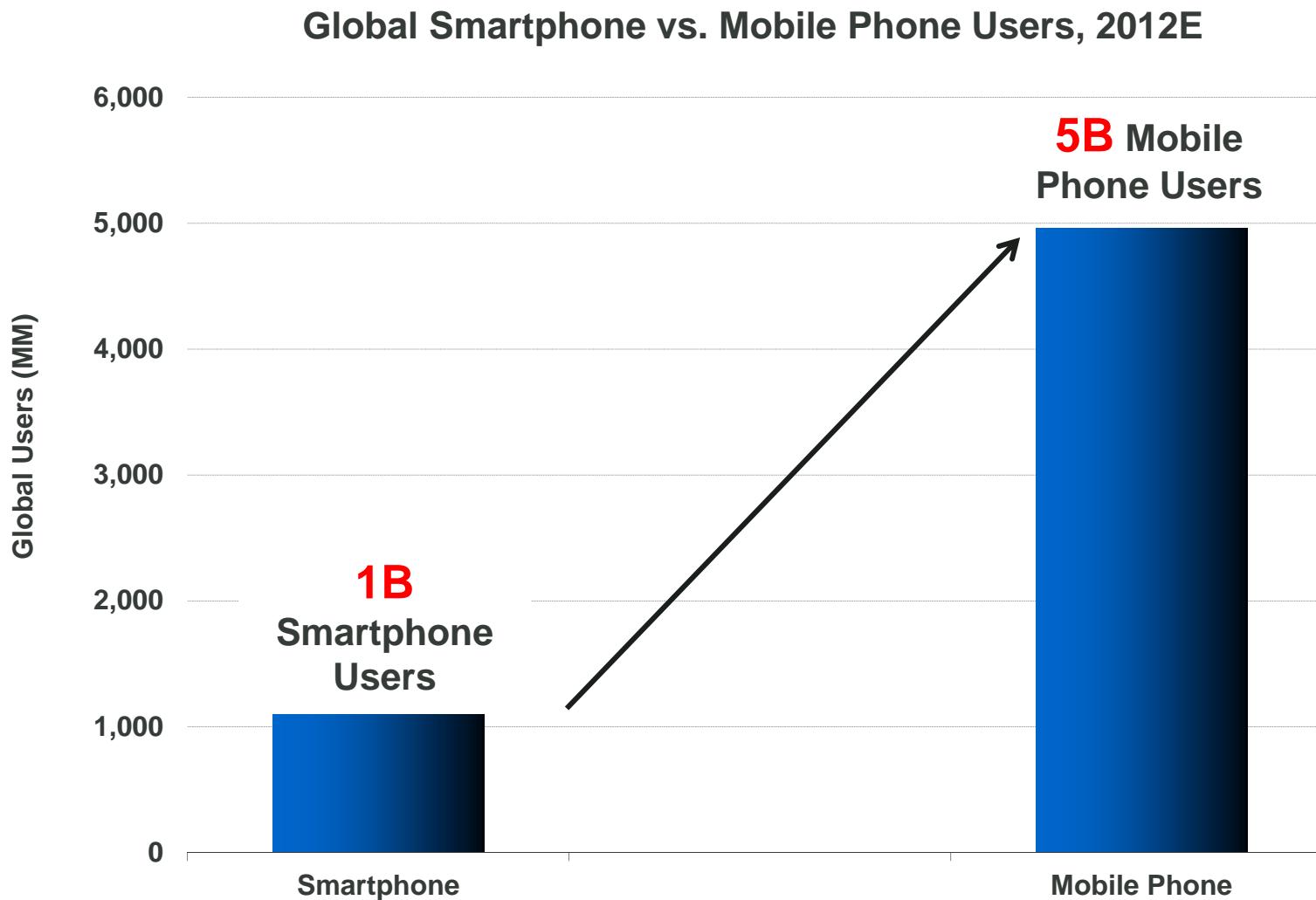
First 10 Quarters Cumulative Unit Shipments, iPod vs. iPhone vs. iPad



Android 'Phone' Adoption Has Ramped Even Faster – Nearly 6x iPhone

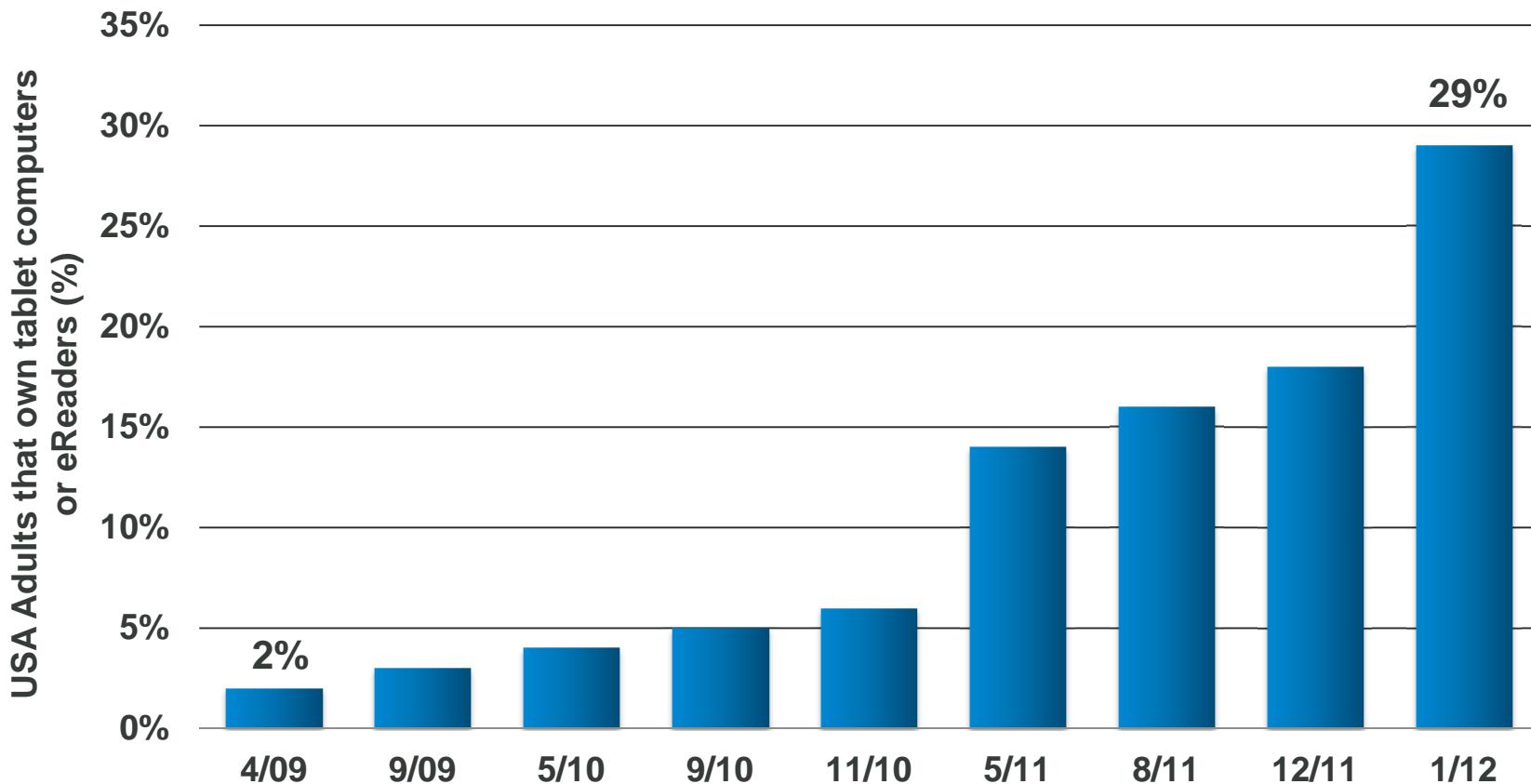


Despite Tremendous Ramp So Far, Smartphone User Adoption Has Huge Upside

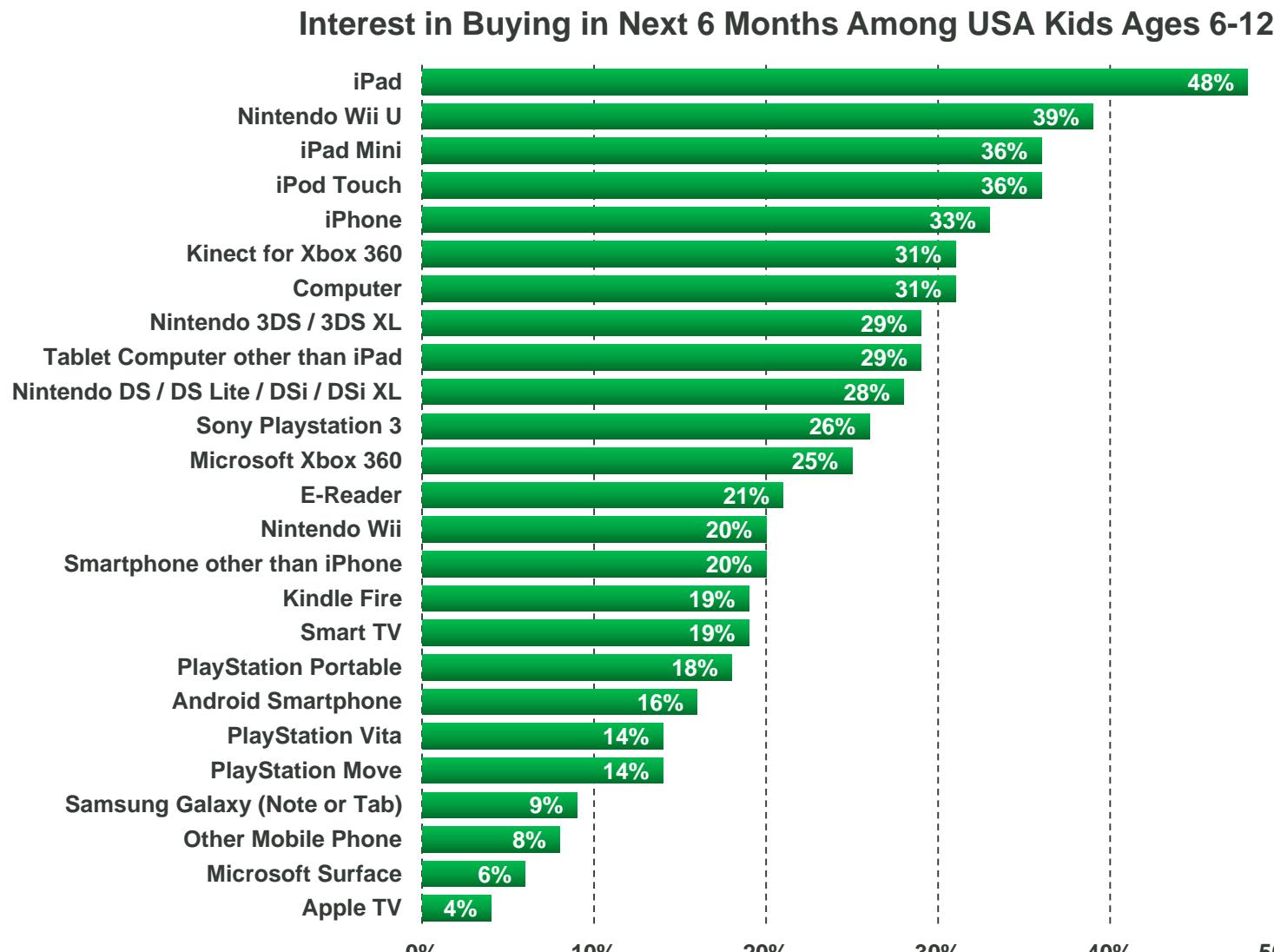


Impressive 29%+ of USA Adults Own Tablet / eReader, Up from 2% Less Than Three Years Ago

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



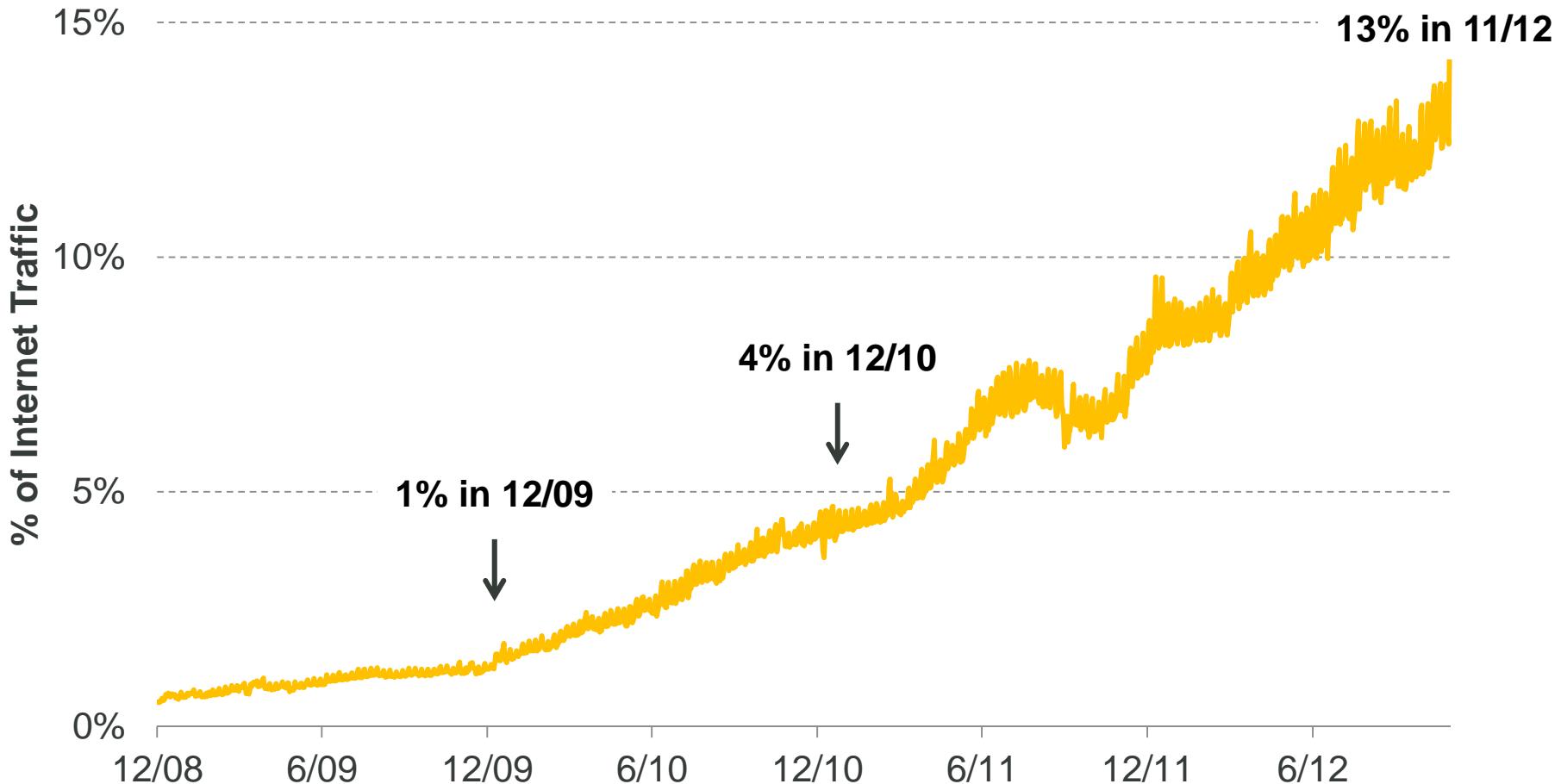
iPad = 48% of American Kids Want One for Christmas While 36% Want a Mini...



MOBILE MOJO

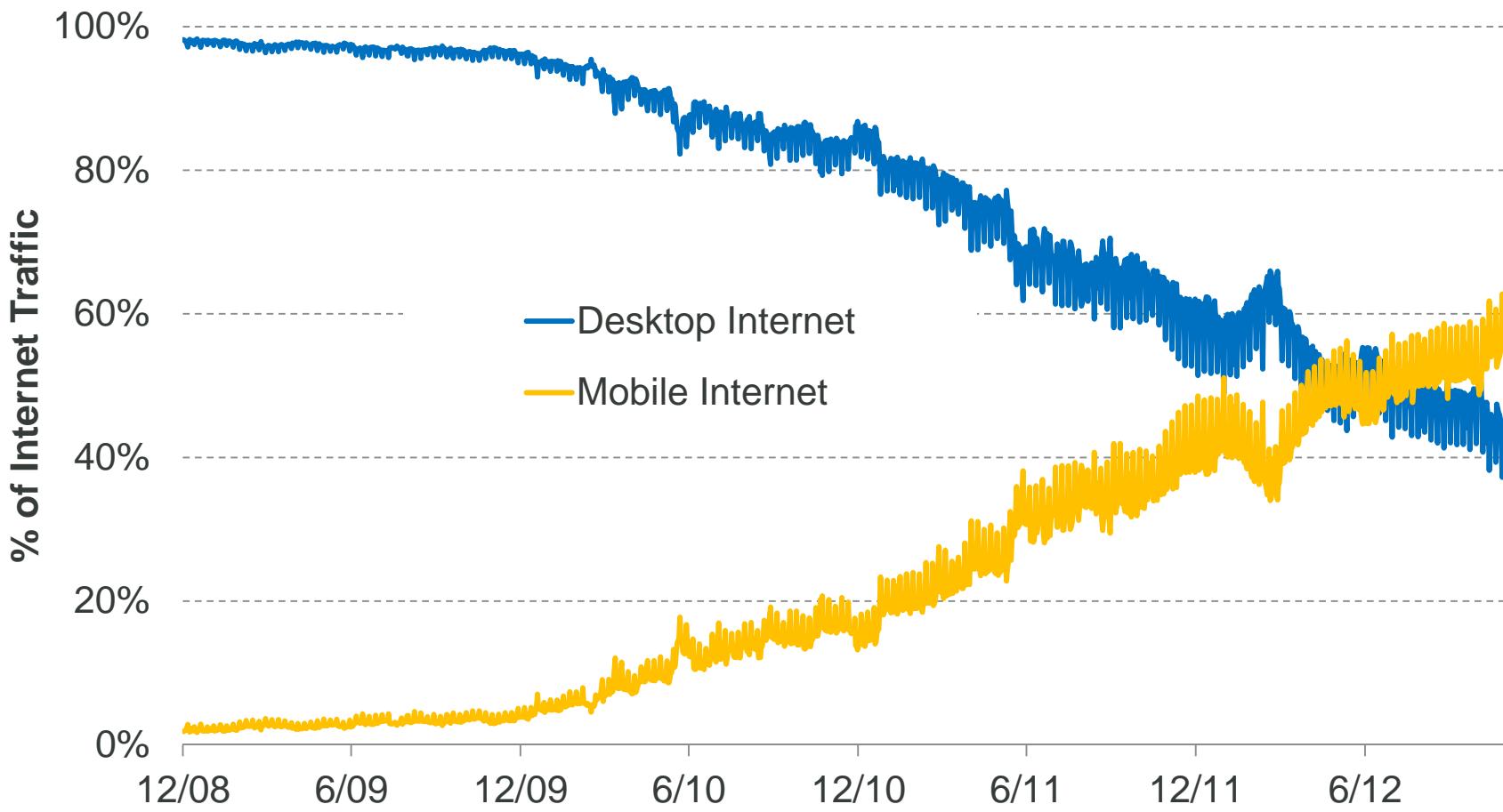
Global Mobile Traffic Growing Rapidly to 13% of Internet Traffic

Global Mobile Traffic as % of Total Internet Traffic, 12/08 – 11/12

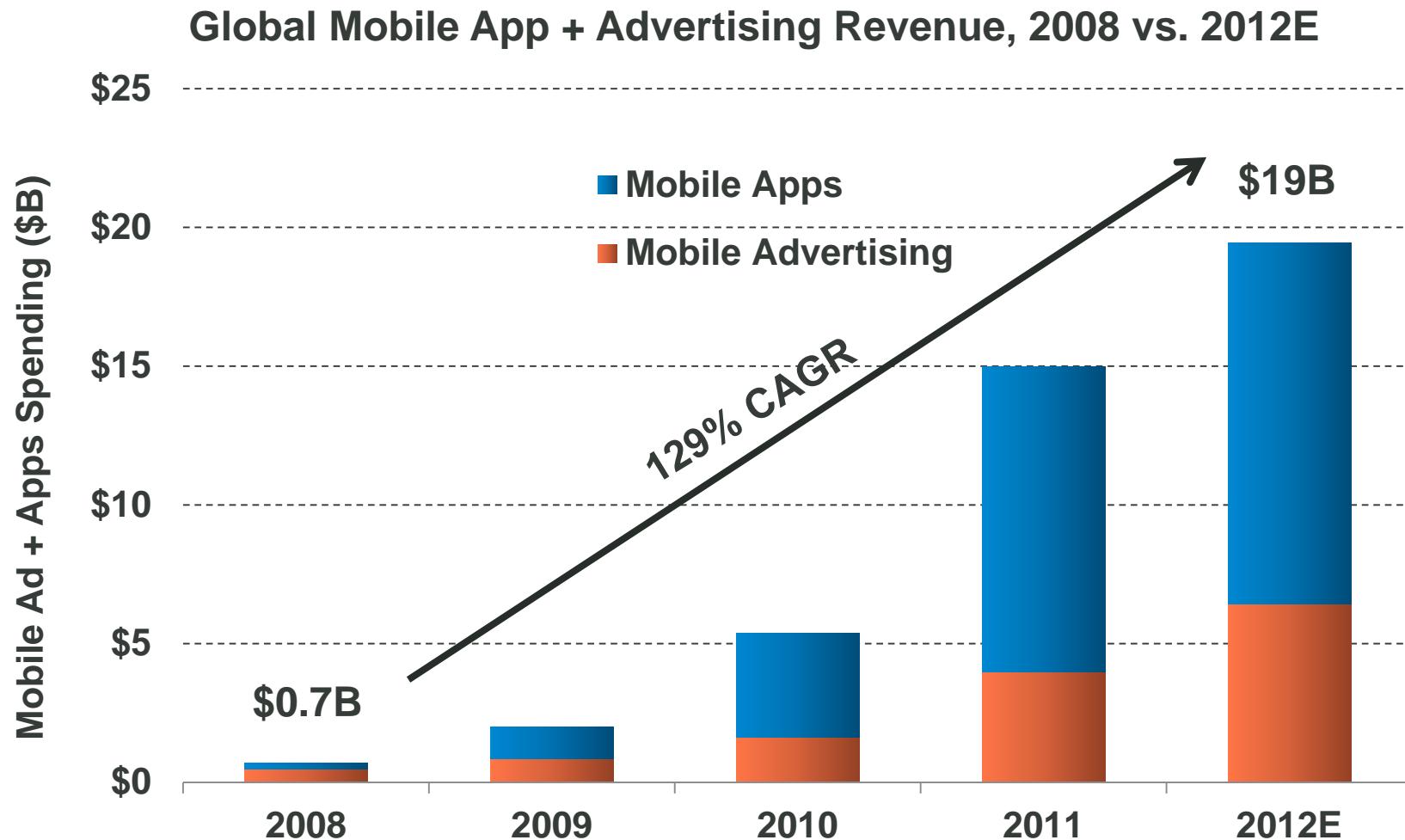


In India, Mobile Internet Traffic Surpassed Desktop Internet Usage in May, 2012 - Other Countries to Follow...

India Internet Traffic by Type, Desktop vs. Mobile, 12/08 – 11/12



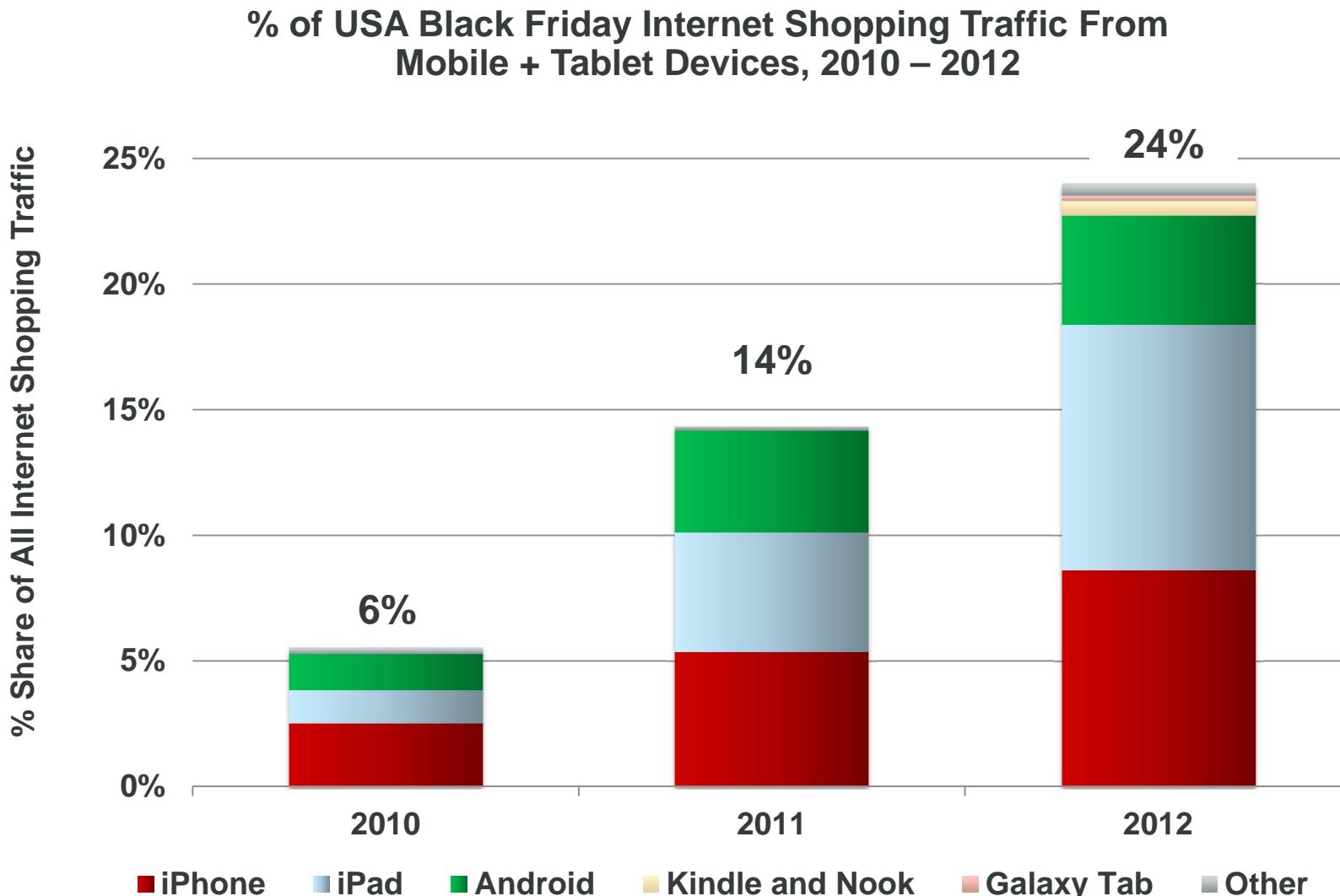
Mobile Monetization Growing Rapidly (67% Apps, 33% Ads)



Source: Gartner, eMarketer, Strategy Analytics. CAGR is compound annual growth rate.

Note: Apple has paid \$6.5B+ to developers as of 9/12, implying gross app market revenue of \$9B+ in 4 years; Google indicated during Q3:12 earnings call that its mobile revenue (from advertising and apps / content) run rate is \$8B+, up from \$2.5B mobile ad revenue run rate in Q3:11.

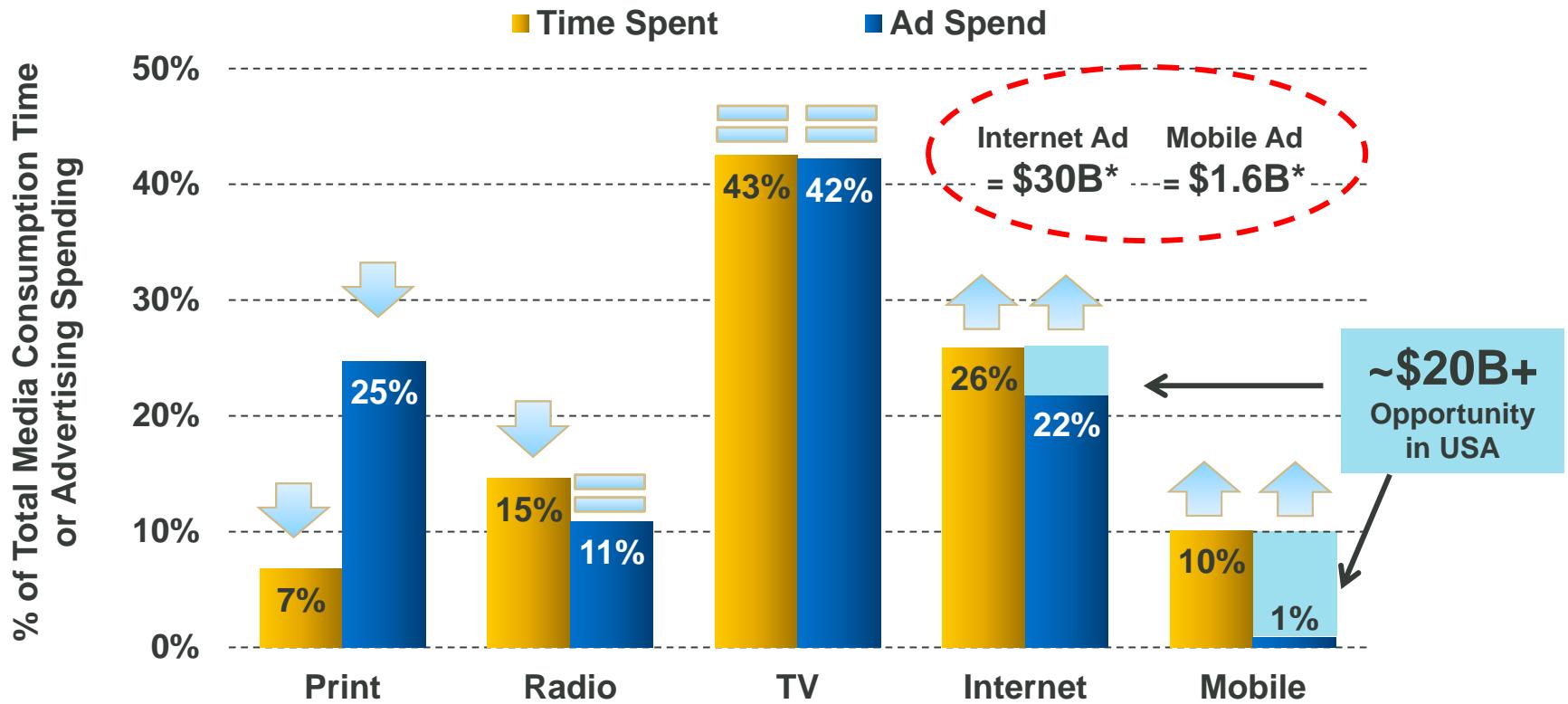
Mobiles + Tablets = 24% of Online Shopping on Black Friday in 2012
(vs. 6% Two Years Ago), iOS 4x > than Android



Note: Black Friday (11/23/12) is the day following Thanksgiving Day in USA, traditionally the beginning of the Christmas shopping season. On this day, most major retailers open early and offer promotional sales to kick off the holiday shopping season. Source: IBM Digital Analytics Benchmark

Material Upside for Mobile Ad Spend vs. Mobile Usage

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



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.

**RE-IMAGINATION OF NEARLY
EVERYTHING –
POWERED BY NEW DEVICES +
CONNECTIVITY + UI + BEAUTY –
WHERE WE ARE NOW...**

Re-Imagination of a Big Idea...

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 Computing Devices...

THEN...

(Desktops / Notebooks)



NOW...

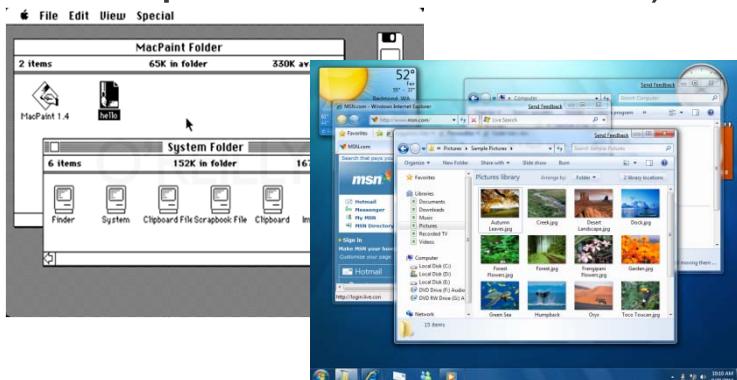
(Tablets / Smartphones)



Re-Imagination of User Interfaces...

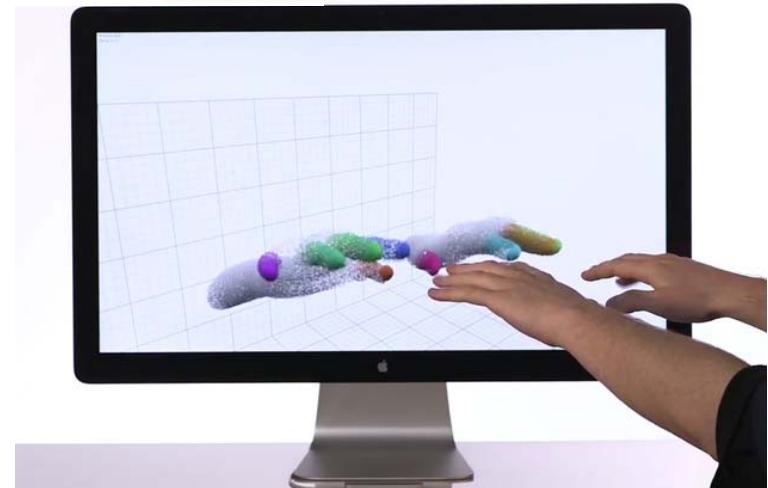
THEN...

(Keyboard + Mice =
Graphical User Interface)



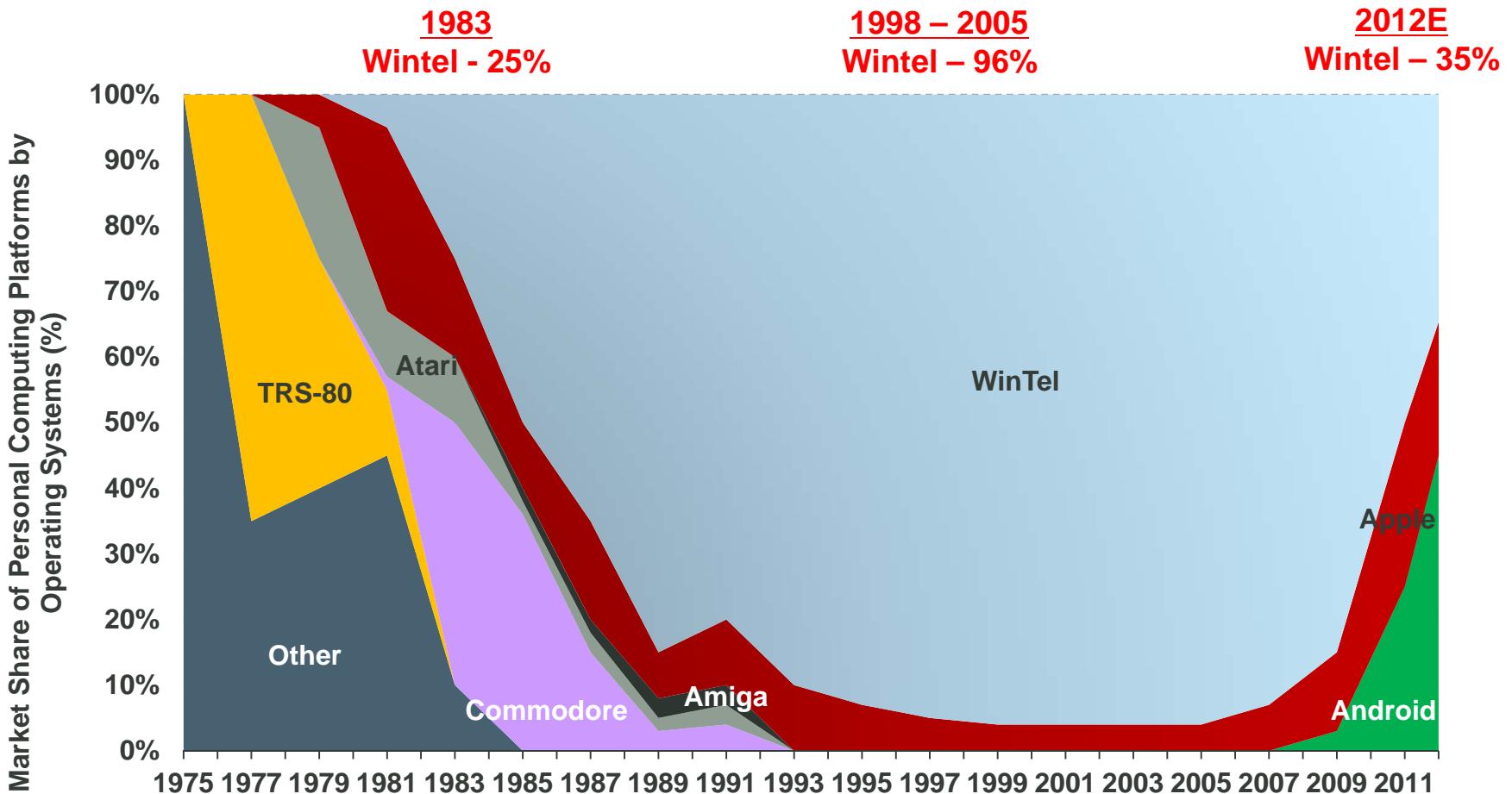
NOW...

(Touch + Voice + Gesture =
Natural User Interface)



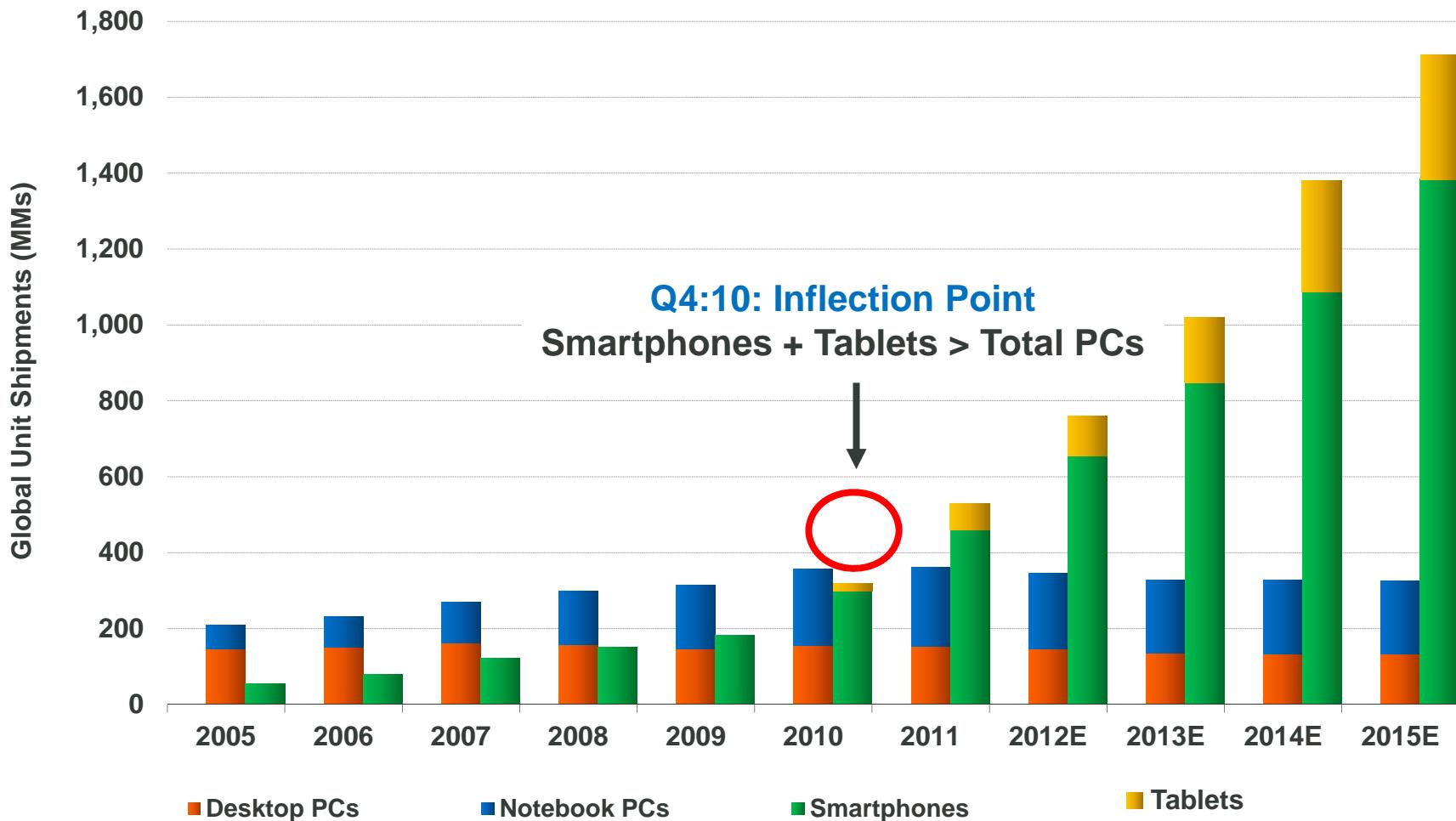
Re-Imagination of Computing Operating Systems - iOS + Android = 45% Share vs. 35% for Windows

Global Market Share of Personal Computing Platforms by Operating System Shipments, 1975 – 2012E



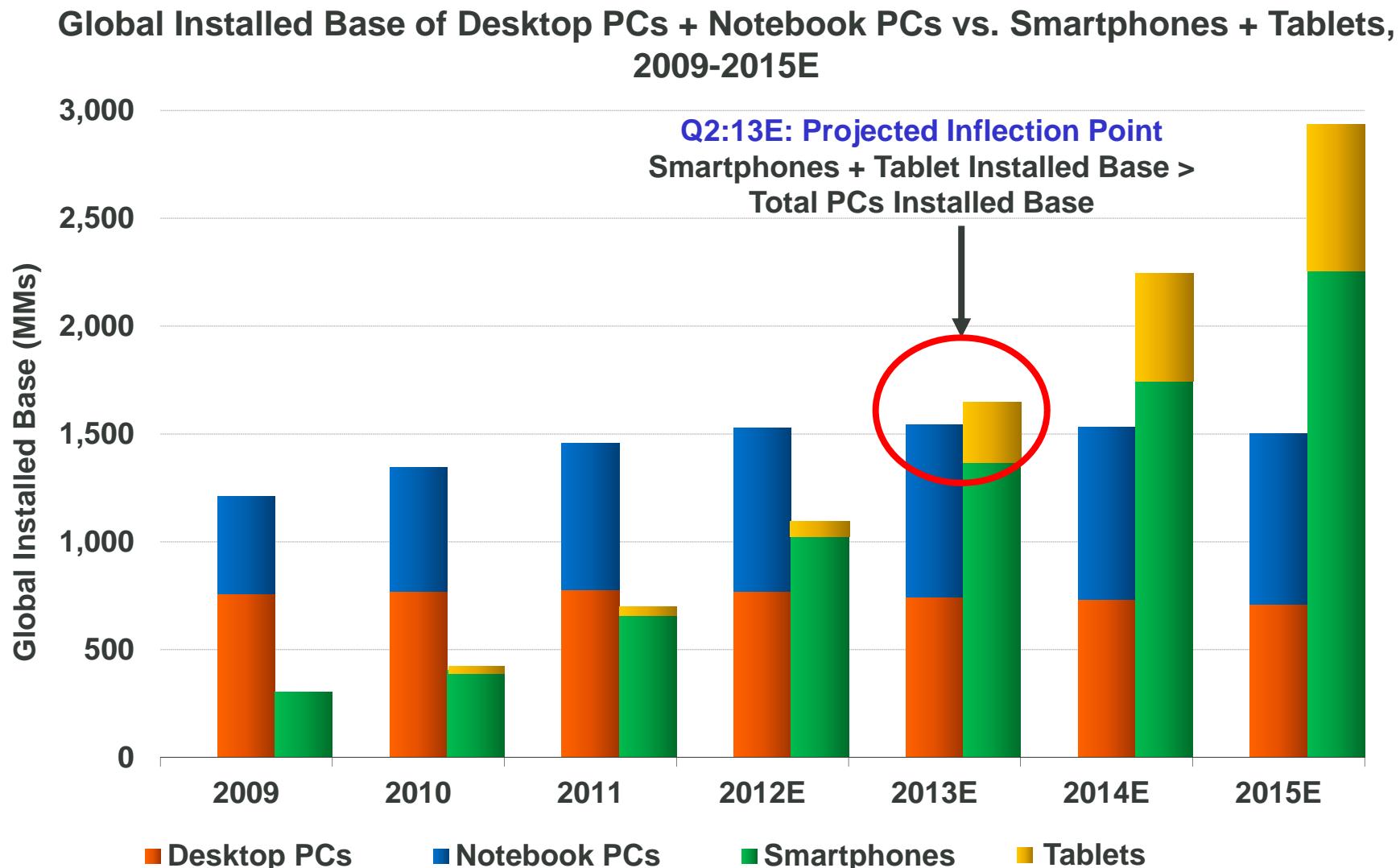
Global Smartphone + Tablet *Shipments* Exceeded PCs in Q4:10

Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones + Tablets,
2005-2015E



Note: Notebook PCs include Netbooks. Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research.
Data and Estimates as of 9/12.

Global Smartphone + Tablet *Installed Base* Should Exceed PC Installed Base in Q2:13E



Note: Notebook PCs include Netbooks. Assumes the following lifecycles: Desktop PCs – 5 years; Notebooks PCs – 4 years; Smartphones – 2 years; Tablets – 2.5 years. Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Data and Estimates as of 9/12.

Re-Imagination of Connectivity...

THEN...

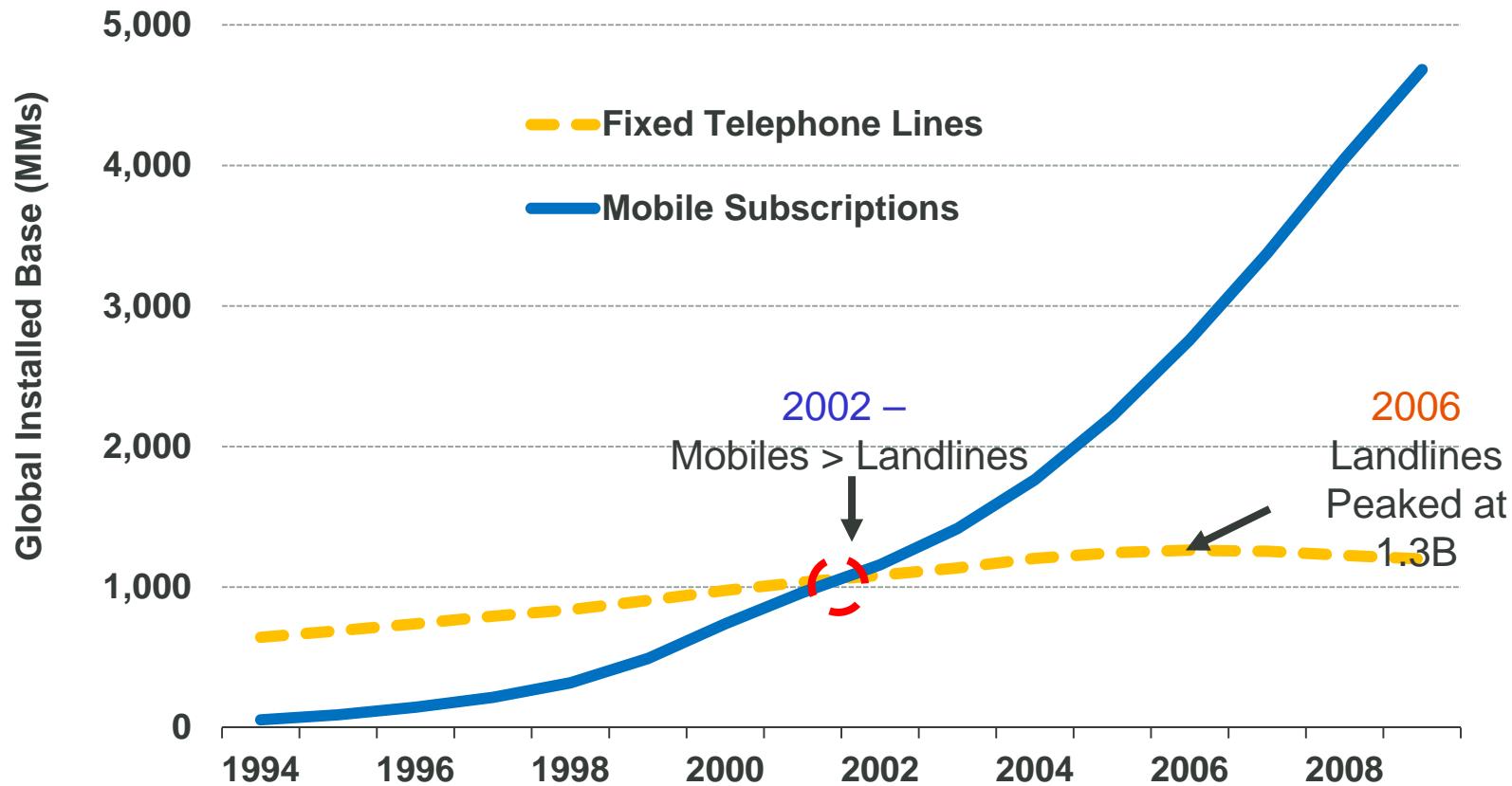


NOW...



125 Years In, Landlines Were Surpassed by Mobiles in 2002

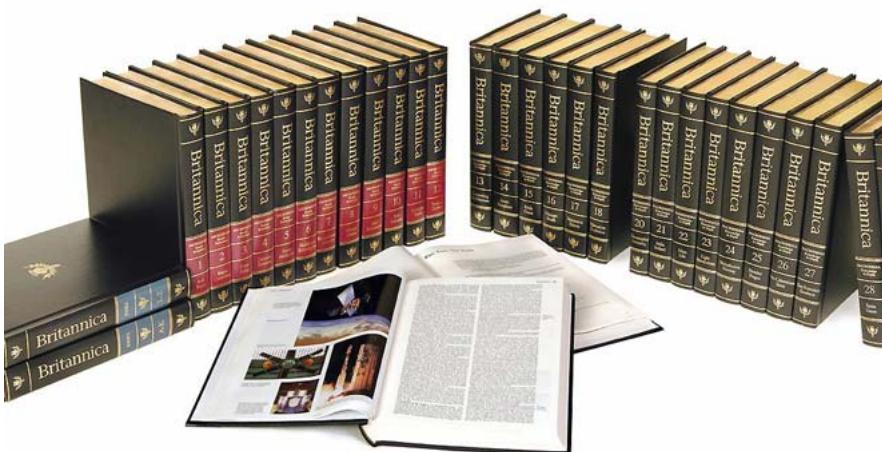
Global Fixed Telephone Lines vs. Mobile Subscriptions, 1994 - 2009



Re-Imagination of Knowledge...

THEN...

(Print Copies / Updated Annually)

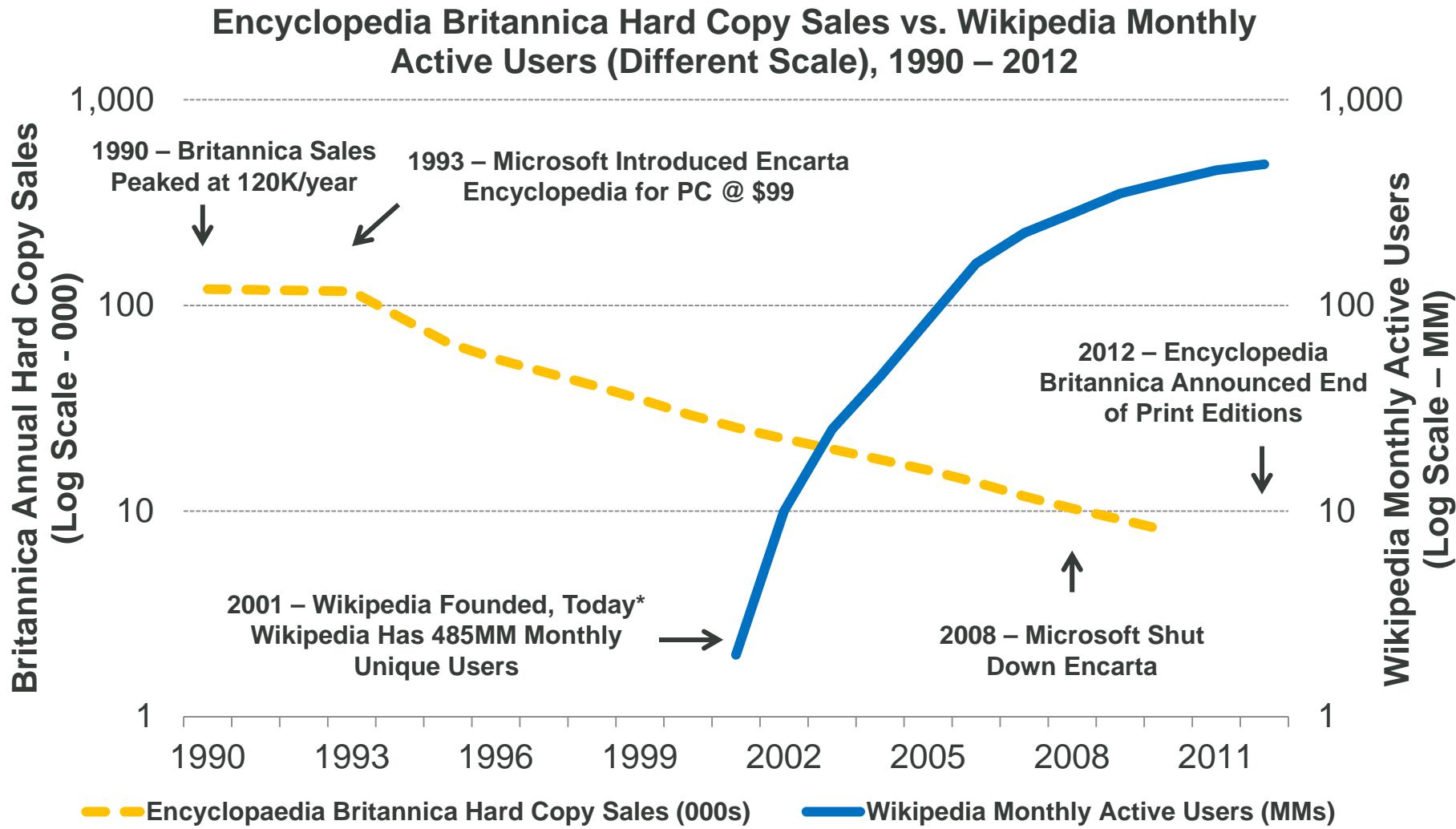


NOW...

(Accessible Everywhere / Updated Real-Time / Everyone Can Contribute)

The screenshot shows the English Wikipedia homepage. At the top, there's a navigation bar with links for Main Page, Talk, Read, View source, View history, and Search. Below the search bar is the iconic Wikipedia logo. The main content area features a "Welcome to Wikipedia" message and a link to 4,107,537 articles in English. A "From today's featured article" section highlights "The Cologne War (1583–88)". To the right, there's a "In the news" sidebar with several bullet points about Formula One, Canadian football, a fire in Bangladesh, Egyptian President Mohamed Morsi, and Israel-Hamas ceasefire negotiations. The bottom of the page includes a "Languages" section with links to Simple English and other language versions.

244 Years In, Encyclopedia Britannica Went Out of Print in 2012



Re-Imagination of Photography...

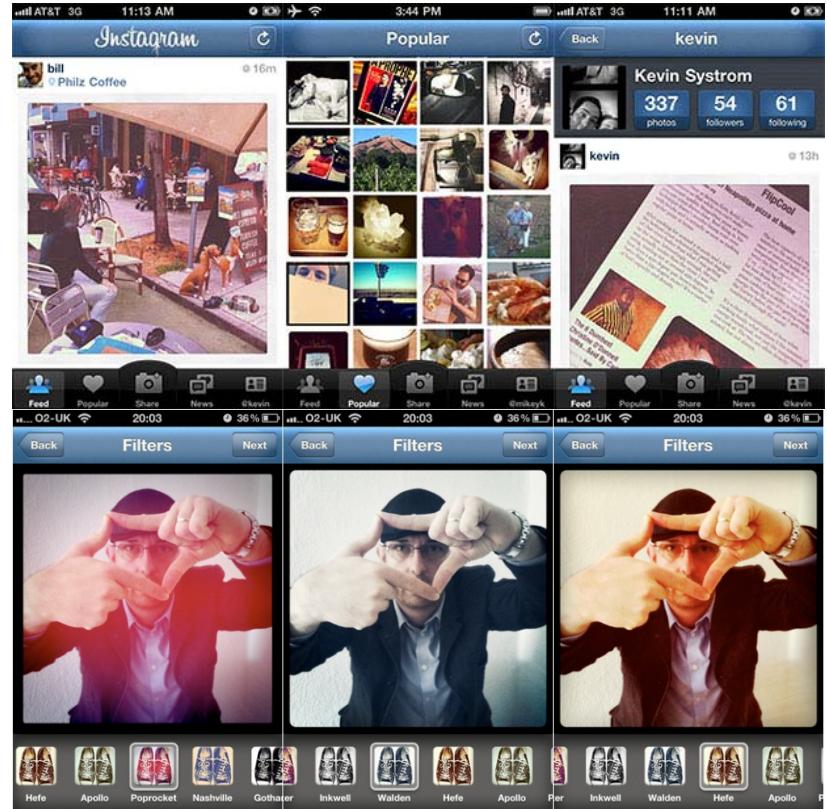
THEN...

Dedicated Camera / Manually
Transfer Digital Files / Develop Films



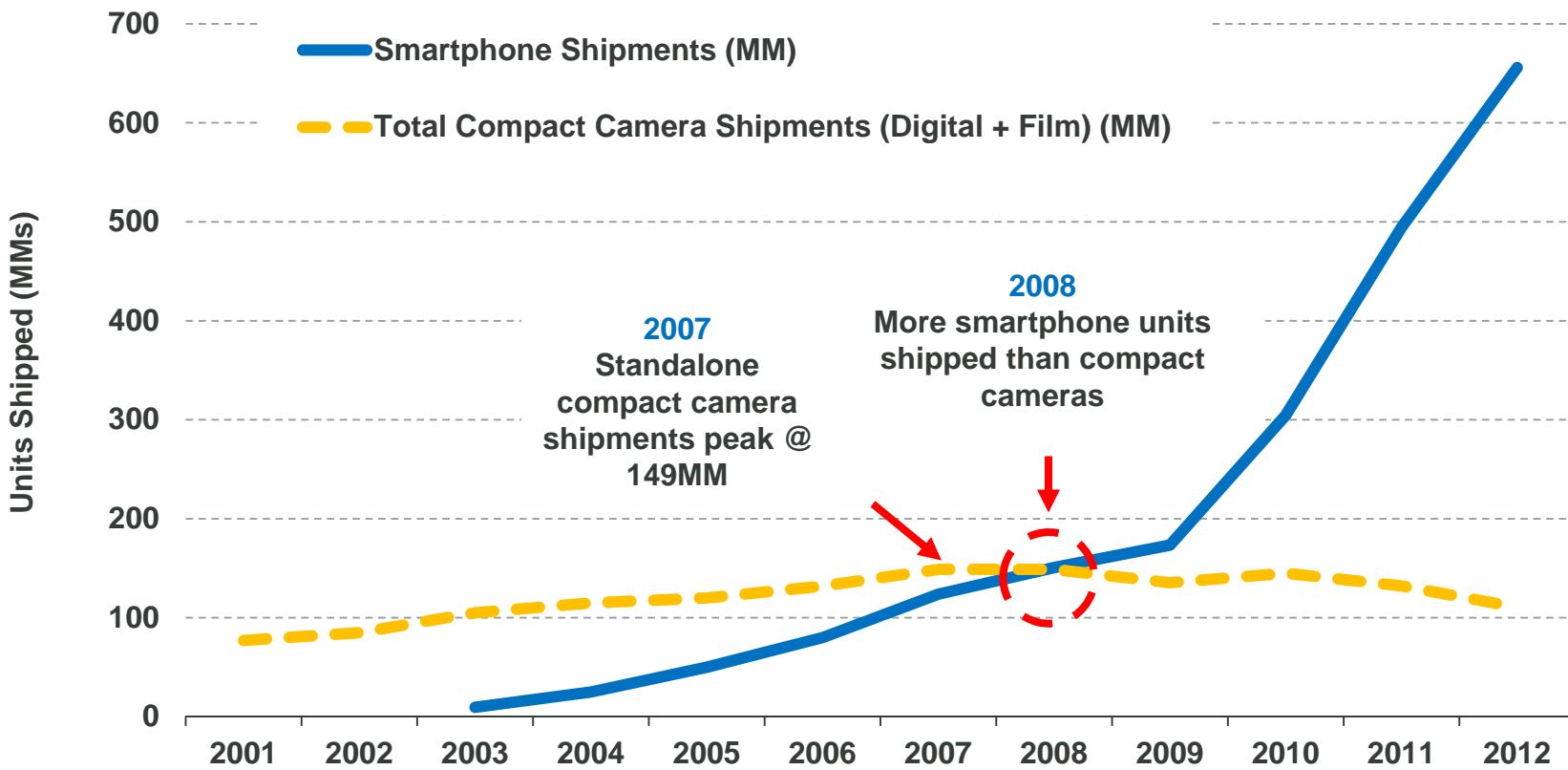
NOW...

(Instagr.am / Camera+ / Hipstamatic...)
Always With You Camera (Smartphone) /
Instant Digital Effects / Share / Sync / Discover



169 Years In, Standalone Compact Camera Shipments Were Surpassed By Smartphone (with Camera) Shipments in 2008

Worldwide Smartphone vs. Standalone Compact Camera Shipments 2001 – 2012E



Source: Digital Camera: 2001-2002 data per Photo Marketing Association; 2003-2012E data per IDC. Film Cameras: 2001-2005 data per Photo Marketing Association; 2006-2012E data per KPCB estimates. Smartphone units data per Morgan Stanley Research

Re-Imagination of Navigation + Live Traffic Info...

THEN...

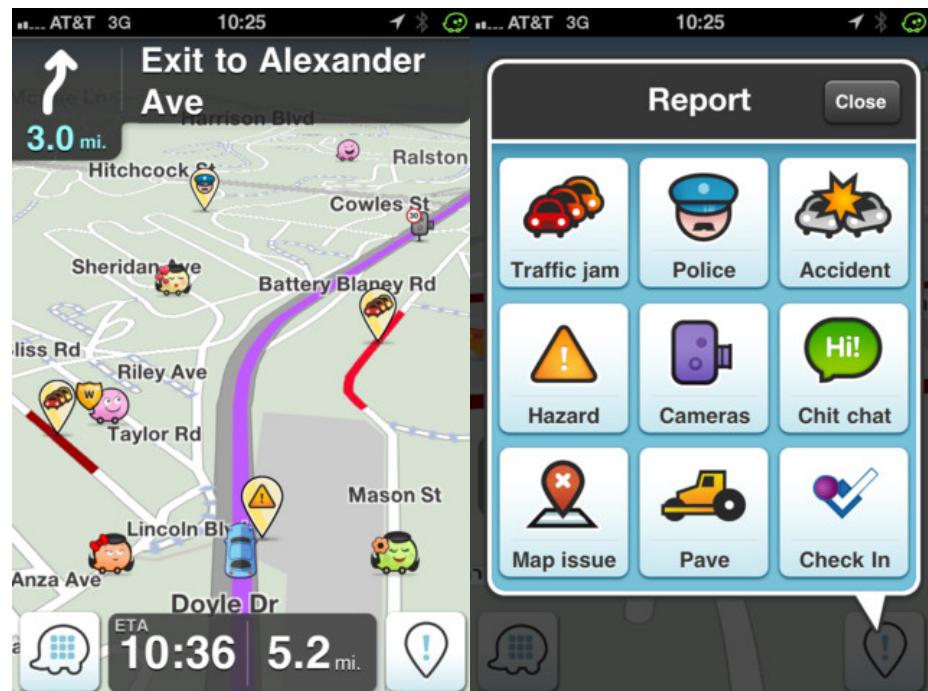
Physical Copies of Map in Car /
TV, Radio Reporting of Traffic Info



NOW...

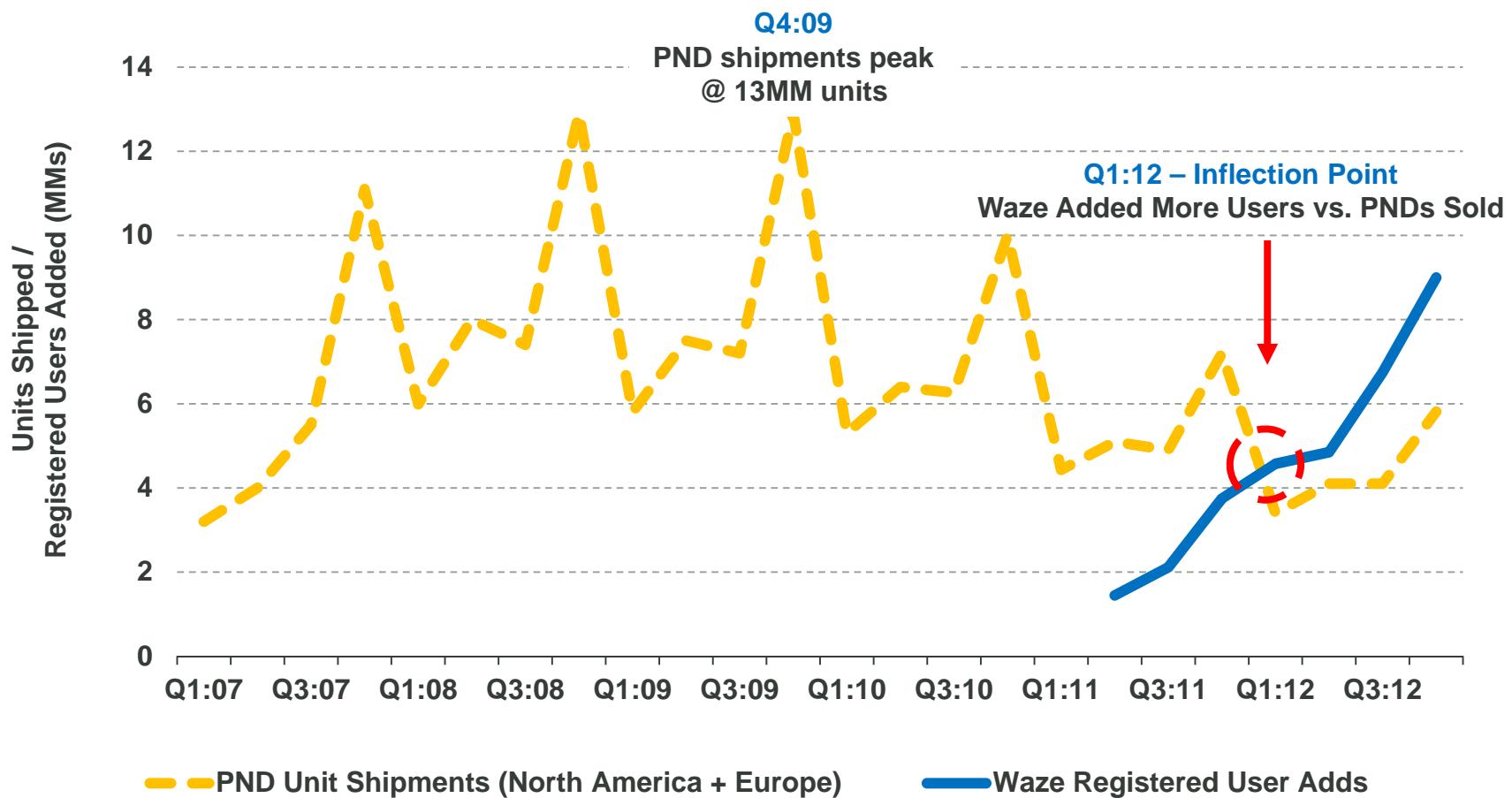
(Waze)

User-Generated Digital Map /
Live Crowd-Sourced Traffic Data



20+ Years In, Portable Navigation Device Unit Shipments Were Surpassed by Waze User Additions in Q1:12

Quarterly N. America + Europe Unit Shipments of Portable Navigation Devices (PNDs) vs. Waze Registered User Adds, Q1:07 – Q4:12E



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

Home Profile Find People Settings Help Sign out

<http://twitpic.com/135xa> - There's a plane in the Hudson. I'm on the ferry going to pick up the people. Crazy.

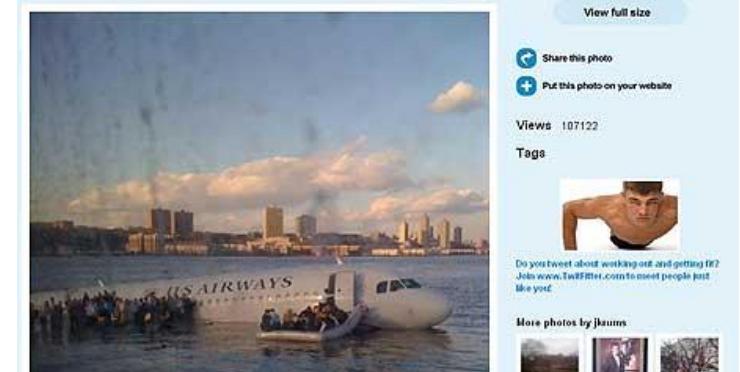
8:36 PM Jan 15th, 2009 from TwitPic

Retweeted by 1 person

Reply Retweet

jkruits Janis Krums

© 2010 Twitter About Us Contact Blog Status Goodies API Business Help Jobs Terms Privacy



Re-Imagination of Note Taking...

THEN...

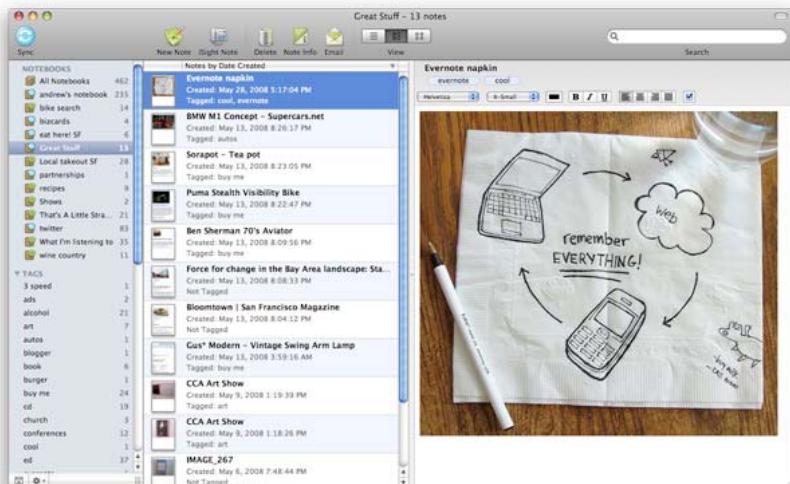
Pencil + Notepad



NOW...

(Evernote)

Always Synced / Multi-Device /
Picture + Audio Enabled / Searchable



Re-Imagination of Files & Folders...

THEN...

Print Copies / Storage Cabinets / Color Tabs



NOW...

(Dropbox / Box.net / Google Drive / Apple iCloud / Microsoft SkyDrive / Amazon Cloud Drive)
Always Synced / Always Accessible / Multi-Device
Searchable Digital Files



Meet your Drive

My Drive is home to your Google Docs, files, and folders. With Google Drive for your PC, sync files from your computer to My Drive.

[Download Google Drive for PC](#)

<input type="checkbox"/>	TITLE	OWNER	LAST MODIFI
<input type="checkbox"/>	Conference documents	me	Mar 26 me
<input type="checkbox"/>	About Solarmora.pdf	me	Mar 26 me
<input type="checkbox"/>	Attendance List	me	8/8/09 me
<input type="checkbox"/>	Book1	me	2/17/11 me
<input type="checkbox"/>	Conference Presentation	me	Mar 26 me
<input type="checkbox"/>	Contact Us Template	me	8/24/11 me

Re-Imagination of Content Organization / Aspiration...

THEN...

Paper / Scissors / Glue



NOW...

(Pinterest)

One-Click to Pin / Share /
Follow / Always Accessible

A screenshot of a Pinterest board titled "my recipes". The board features a grid of nine food-related pins. The pins include "Stuffed Figs with Honey-Balsamic Syrup", "milkshake cupcakes", "funfetti", "Uptown Mac and Cheese", "Carnival Cruise's 'Warm Chocolate Melting Cake' recipe...", "Thanks to Six Sisters Stuff for this awesome honey sesame chicken slow cooker recipe! It's SOOOOO delicious!", "These are delicious!", "Bernie Lopez onto YumiCravings/Recipes/To Make", and "Jennifer Klima onto Try". Each pin includes a thumbnail image, the recipe name, and the user who pinned it.

Re-Imagination of Magazines...

THEN...

Piles of Print Copies



NOW...
(Flipboard)

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



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 Borrowing / Lending Money...

THEN...

Brick 'n Mortar Bank Branch / Paper Applications / Lengthy Approval Process



NOW...

(Lending Club...)

Online Interface / Apply & Get Funded in Days / Lower Interest Rates For Borrowers / Better Diversification / Returns For Investors



Apply
online in minutes



Get Funded
in a few days



Make
fixed monthly
payments

LendingClub

[Investing](#) | [Personal Loans](#) | [How It Works](#) | [About Us](#)

Browse Notes

Showing Notes 1 - 15 of 870									
Investment	Rate	Term	FICO®	Amount	Title / Purpose	% Funded	Amount / Time Left	Action	Action
\$0	A 1	36	750-779	\$10,000	credit card payoff	99%	\$25	6 days	
\$0	A 2	36	780+	\$8,000	Credit Card Refinancing	96%	\$250	6 days	
\$0	A 2	36	750-779	\$6,600	Moving Loan	96%	\$600	6 days	
\$0	A 2	36	750-779	\$6,600	Credit Card Refinancing	96%	\$200	6 days	
\$0	A 2	36	750-779	\$6,600	Assisted Living Business	96%	\$200	6 days	
\$0	A 2	36	750-779	\$6,600	Small Business	96%	\$200	6 days	
\$0	A 3	36	714-749	\$5,000	Major Purchase	86%	\$700	5 days	
\$0	B 1	36	679-713	\$12,800	Major Purchase	86%	\$875	5 days	
\$0	B 1	36	679-713	\$3,600	My New Loan	93%	\$875	6 days	
\$0	B 1	36	679-713	\$3,600	Debt Consolidation	93%	\$875	6 days	
\$0	B 1	36	679-713	\$10,000	CENTRAL AC	82%	\$625	7 days	
\$0	B 1	36	679-713	\$10,000	Home Improvement	82%	\$650	7 days	
\$0	B 1	36	679-713	\$10,000	Home Improvement	82%	\$650	7 days	

Re-Imagination of Idea Building / Funding...

THEN...

Flyers / Loudspeakers / Dinners / Checks



NOW...

(KickStarter)
Online / Social Distribution /
Real-Time Progress

KICKSTARTER Discover Start your project

The HuMn Wallet - the best minimal RFID blocking wallet

A Design project in Portland, OR by Scott Hussa - send message

PROJECT HOME UPDATES 3 BACKERS 1973 COMMENTS 445 REMIND ME

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

THIS PROJECT WILL BE FUNDED ON MONDAY APR 2, 11:59PM EDT.

BACK THIS PROJECT \$1 MINIMUM PLEDGE

PLEDGE \$25 OR MORE 6 BACKERS

Newly Added Additional Single Aluminum Plate: If you want to add more color and personality to your HuMn wallet, you can now add this to your existing order

716 people like this. Be the first of your friends.

About This Project

We're two righteous dudes who need your help in making the world's best RFID wallet!

A screenshot of a Kickstarter project page for "The HuMn Wallet". The page features a large image of the wallet, which is black with a textured surface and a small rectangular slot. The top banner shows the project has reached 1,973 backers and pledged over \$155,000. Below the banner, there's a video thumbnail showing a close-up of the wallet. The page includes social sharing buttons for Facebook, Twitter, and Embed, along with a link to the project's URL. The "About This Project" section describes the team as "two righteous dudes" working on a "minimal RFID blocking wallet". There's also a note about a newly added "Single Aluminum Plate" pledge option.

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

LinkedIn People Jobs Answers Companies Account & Settings | Help | Sign Out Language

Explore People Search: Engineer at IBM - Internet - Senior Consultant Search People Advanced

People

Mark Presnell Director, Career Center at Johns Hopkins University Washington D.C. Metro Area | Education Management

Current • Director at Johns Hopkins University Career Center

Past • Senior Associate Director, Career Center at University of Rochester
• Director of Architecture Career Services at University of Virginia

Education • University of Kansas
• Purdue University

Connections 149 connections

Websites • My Company

Public Profile <http://www.linkedin.com/in/markpresnell>

+ Send a message
+ Add Mark to your network
+ Forward this profile to a connection
+ Search for references

Ads by LinkedIn Members The Document of Your Life A Resume Can Change Your Career Award-Winning Shimmering Resumes www.ShimmeringResumes.com From: Paul Freiberger

8K Miles SMB Survivability 8K Miles Pay-as-you-go infrastructure and professionals on demand for SMBs www.8KMiles.com From: 8KMiles What's this?

How you're connected to Mark

You
↓
Lindsey Pollak
↓
Mark Presnell

Summary

Career professional with a track record of developing comprehensive career services for both undergraduate and graduate students. Ability to create programs and services that link alumni, students, and recruiters to identify both entry-level and advanced talent. Experience counseling and advising students and alumni in a wide range of fields including consulting, finance, government, non-profit, biotechnology, engineering, and research.

Specialties SI and MBTI interpretation, student development, career counseling, employer relations, alumni relations, networking

Re-Imagination of Product Design...

THEN...

Secretive / In-House R&D



NOW...
(Quirky)

Open / Crowd-Sourced / Collaborative Design / Live Online Broadcast of Product Evaluation / 3D Printed Prototypes



Re-Imagination of Selling Digital Goods...

THEN...

Dedicated Shopping Site / Fulfillment Infrastructure

The screenshot shows a product page for the 'DMB Away From The World' DELUXE Album. At the top, there's a navigation bar with links like Home, New Downloads, Studio Recordings, Live Recordings, Live Trax Series, DMBLive Series, Side Projects, and Box Sets. Below the navigation is a search bar and a 'CHECKOUT' button. The main content area features a large image of the album cover, followed by a section titled 'SELECT Format' with options for MP3 (selected) and CD. It also includes a 'Buy CD' option for \$15.99. A sidebar shows 'People Who Bought This Also Bought' with three other album covers. Below this is a social sharing section with 'Like' and 'Share' buttons. The 'Album Description' section states: 'The new studio album from DMB, produced by Steve Lillywhite. This Deluxe version includes 3 new exclusive live tracks.' The 'Customer Reviews' section notes: 'Currently, there are no reviews available.' At the bottom, there's a table of songs with their respective play buttons, titles, artists, and album information.

NOW...

(Gumroad)

Democratization of Commerce / Leverage Distribution Platforms such as Twitter / Facebook

Your creation and a price → → a short link you can share to sell.



The screenshot shows a listing for a file named 'Oh! Helicopter'. It includes a play button, the file name, a price of '\$1+', a waveform visualization, and a 'SOUNDCLOUD' link. Below the file details, there's a purple button labeled 'I want this!' and a note: 'You'll get an MP3.' Technical specifications listed are SIZE: 9.8 MB, DURATION: 5:20, and BITRATE: 256 Kbps. A note at the bottom states: 'Let's try something... here's an unreleased unheard demo from 2008. Totally different to the music I write now, this is all glitches and guitar. It's a taste of what could have been. If you dig it, click the buy link, it's limited to the first 50 downloads.'

Powered by
 gumroad

KPCB

Re-Imagination of Signatures...

THEN...

Scan / Fax / Mail to Return
Signature Page



NOW...

(DocuSign)

Electronic Documents / Secure Audit
Trail / Instant E-Signature

18. Addenda: 22D(Opt. Clauses); 22J(Lead Disci); 22K
35(Inspection); 41C(SB Commission);

2FEF11E53C5944F... 

John Hancock 
Buyer's Signature
DocuSigned By: John Hancock Date

Buyer's Signature Date
1234 1st Avenue
Buyer's Address

Adopt Your Signature

Your Full Name: Your Initials:

Draw your signature 

Draw your initials  Try Again

or Select your Signature Style

By clicking the button below, I agree that the signature and initials I have selected above will

Re-Imagination of Health Awareness...

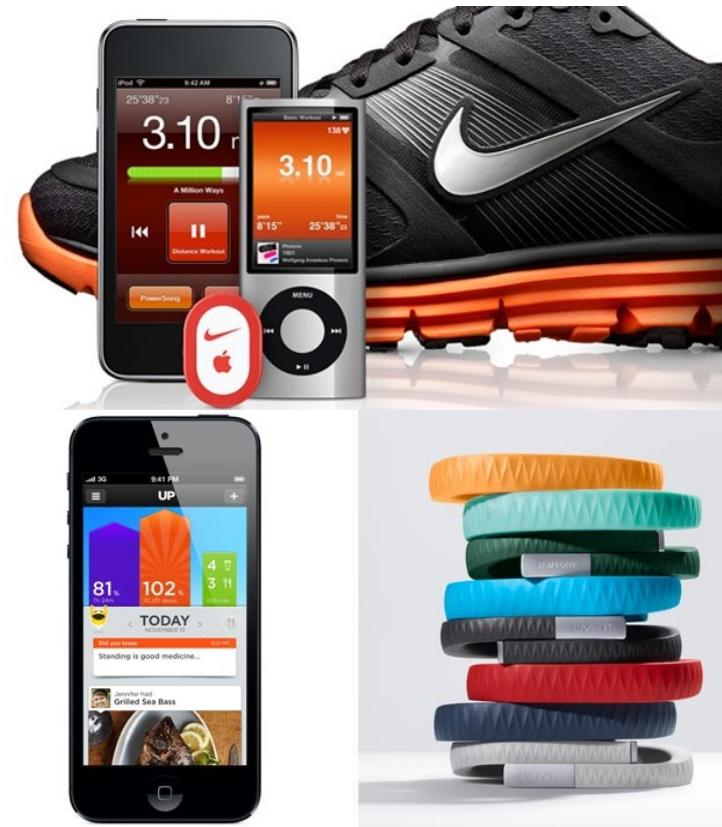
THEN...

Awareness Campaigns /
Physician Visits



NOW...

(Nike+ / Jawbone UP)
Always-On Tracking + Syncing + Analytics /
Quantified Self



Re-Imagination of Door Locks...

THEN...

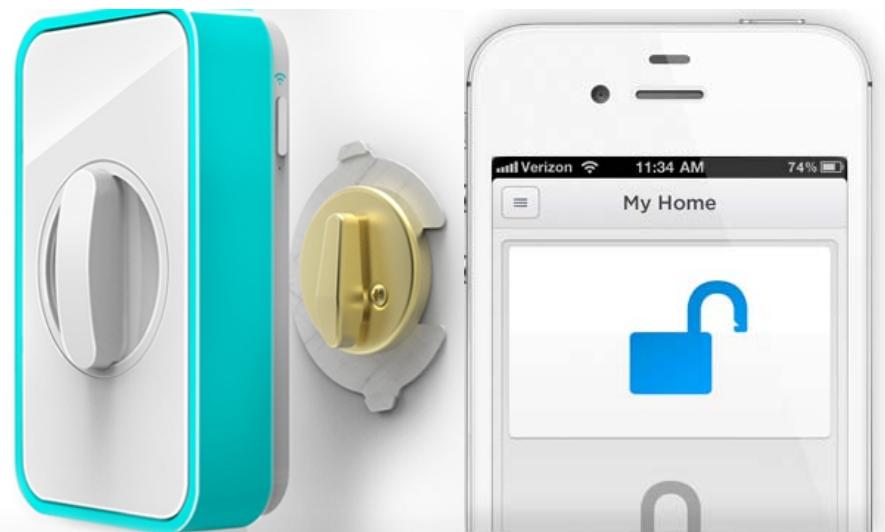
Keys & Latches



NOW...

(Lockitron)

Lock / Unlock From Your Smartphone Anywhere in
the World / Keyless Entry with Bluetooth Auto-
Sensing / Wi-Fi Enabled



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 Education...

THEN...

Classrooms / Lectures / Reading Materials



NOW...

(Codecademy / Coursera / Khan Academy...)
Interactive / Online / Accessible by
Anyone Anywhere Anytime

The screenshot shows the Codecademy homepage. At the top, there's a navigation bar with links for Courses, Creators, Jobs, Sign In, and Create Account. Below the header, a main section titled "Learn to code" features a sub-section "Getting Started". This section includes a "Get Started (it's free)" button, a snippet of sample code, and a grid of icons representing various programming concepts like "HTML", "JavaScript", "CSS", "Numbers", "Loops", "Conditionals", and "Functions". To the right, there's a "Track and Share Your Progress" section showing a progress bar for a user named "Ryan" who is 37% complete with 3 of 8 lessons finished. Other sections visible include "Program Websites and More" and "Learn with Friends".

Re-Imagination of Learning...

THEN...



NOW...



*From learning by listening to learning by doing...
Education and learning will become as much fun as
videogames. We call it 'full body learning.'*

- Bing Gordon, Interactive Arts Hall-of-Famer, KPCB Partner

Re-Imagination of The Rose Bowl...



Games are even more engaging for fans with the sports screen trifecta - mobile / tablet / TV.

Megan Quinn, Stanford Fan, KPCB Partner

Re-Imagination of Data – Big to Bigger to Bigger & It's Still “The Wild West”...

In less than ten years, Facebook garnered massive volunteered (and shared) big data from its 1B+ users – to tune of 300MM+ images uploaded everyday / 125B+ friend connections / \$3B+ in capex.

THEN...

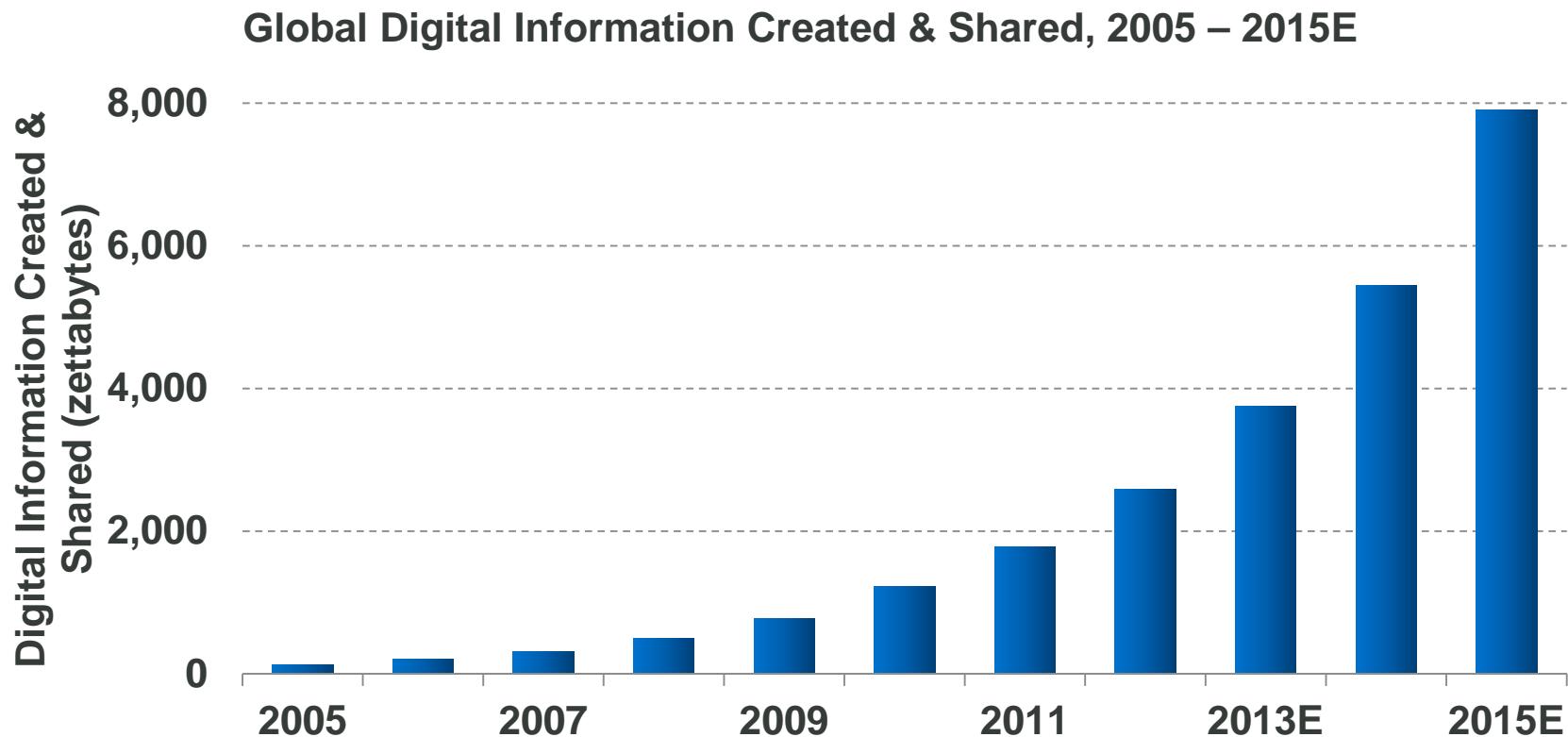
A screenshot of the original Facebook interface. At the top, there's a blue header bar with the word "facebook" and navigation links for "Profile", "Events", "Inbox", "Settings", and "Logout". Below the header is a profile picture of Zahar Chougle. A post from Zahar Chougle is visible, followed by several other posts from the same user. On the left side, there's a sidebar with links for "Wall", "Info", "Friends", and "Photos & Video".

NOW...

A screenshot of the modern Facebook interface. The layout is more complex and visually rich. It shows a post from Matt Brown about his weekend at SF Moma, followed by a photo of a park with the San Francisco skyline. Below that is a post from Matt Brown about his 2nd Anniversary Backpacking trip to Point Reyes, featuring three photos of him and his gear. Further down, there's a post from Matt Brown about becoming friends with Nicholas Felton, with a photo of them together. The interface also includes a "Likes" section with four items (George Saunders, Mountain Biking, Brian Eno, Christopher Walken) and a "Places" section showing a map of San Francisco with visited locations marked.

...Re-Imagination of Data – Big to Bigger to Bigger and It's Still “The Wild West”...

Amount of global digital information created & shared – from documents to pictures to tweets - grew 9x in five years to nearly 2 zettabytes* in 2011, per IDC.

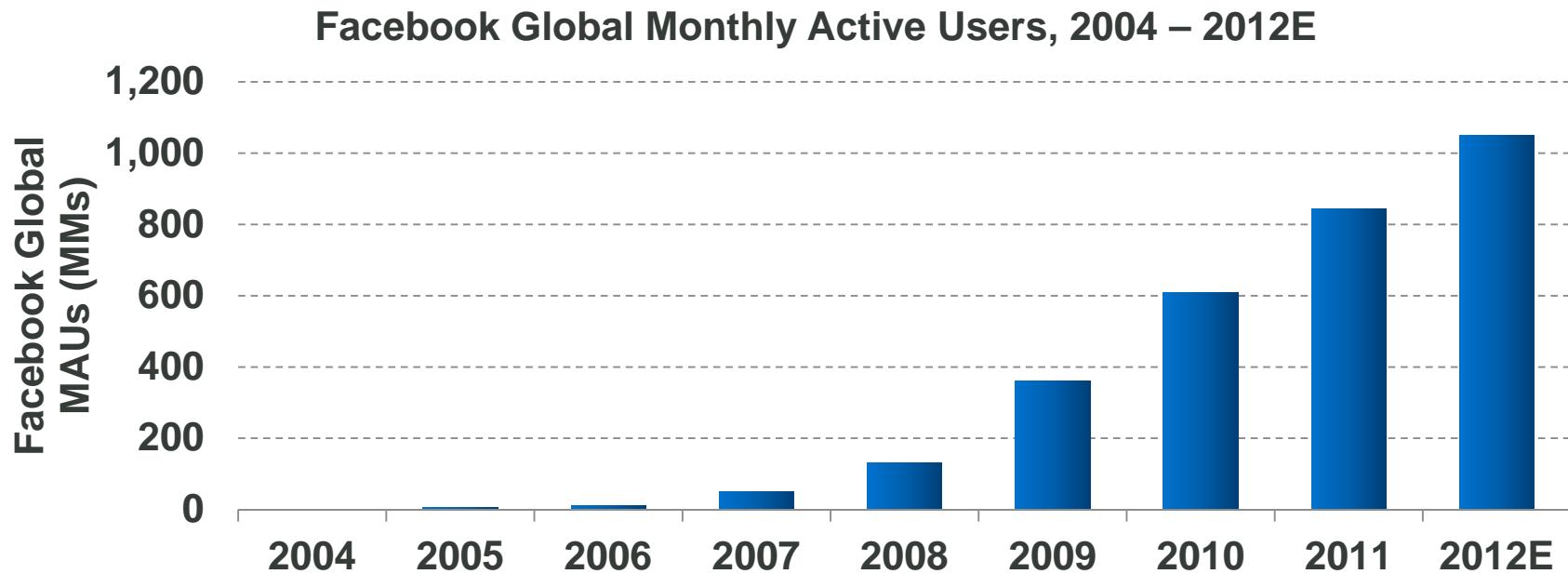


...Re-Imagination of Data – Big to Bigger to Bigger and It's Still “The Wild West”

If Facebook can create a ‘front-end’ to massive amounts of largely new & personal “big data,” in spite of huge initial resistance to “sharing” – think what can come to pass with “front-ends” + connections to *most* types of data over the next ten years.

Headlines From *The New York Times*

- “Facebook Retreats on Online Tracking” – 11/2007 @ 50MM Users
- “Facebook’s Users Ask Who Owns Information” – 2/2009 @ 200MM Users
- “Facebook Privacy: A Bewildering Tangle of Options” – 5/2010 @ 500MM Users



Source: Facebook, 2012E MAUs are KPCB estimates.

55

Re-Imagination of Data – Help Me, Help You, Help Others...

Waze

- 30MM Users, +3x Y/Y
- 600MM+ Miles Driven per Month with Waze Open



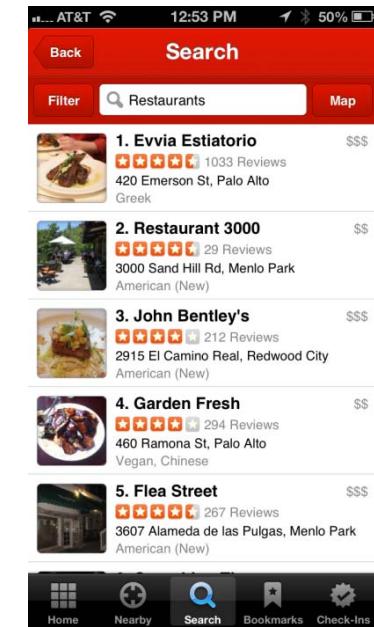
Jawbone UP

- Initial Launch of ~70K Users (11/11) =
 - 7B+ Steps
 - 800 Years of Sleep
- Re-launched 11/12



Yelp

- 84MM Users, +37% Y/Y
- 33MM User-Generated Reviews, +49% Y/Y



Re-Imagination of Always On...

Bluetooth

~2B Bluetooth-Enabled Devices Shipped Globally in 2012E, Up 87x in 10 Years



Wi-Fi

~1.5B Wi-Fi Enabled Devices Shipped Globally in 2012E, Up 5x in 4 Years



Personal Server in Your Pocket + Sensors / Signals Uber Alles

How Many of You are Wearing a “Wearable” Now?

How Many of You will be Wearing a “Wearable” in 5 Years?

Magnitude of Upcoming Change Will be Stunning - We are Still in Spring Training

- **Nearly Ubiquitous High-Speed Wireless Access in Developed Countries**
- **Unprecedented Global Technology Innovation**
- Ultra Competitive Markets for Mobile Operating Systems + Devices
- Broadly Accepted Social + Interest 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

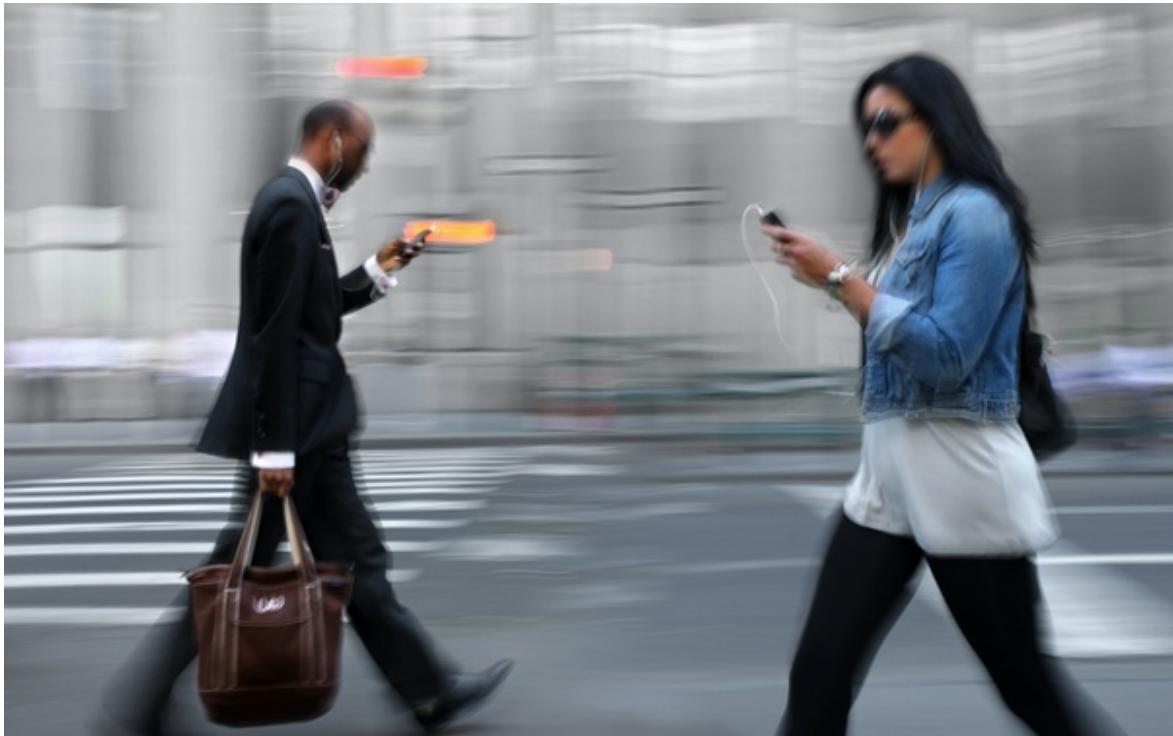
ASSET-LIGHT GENERATION – FROM HAND TO CLOUD & BACK... RISE OF THE SHARING ECONOMY

Who Ya Gonna Text? *to tune of 'Ghostbusters'*

You Can Walk Out Your Door...

With the Clothes on Your Back, a Charged Mobile Device...

Cash in the 'Bank' & Happily Go a Very Long Way...



Mobile Internet Re-Imagining Asset-Heavy Lifestyle

Asset-Heavy Lifestyle Consumes:

Space



Time



Money



Asset-Light Lifestyle Frees: Space...

Asset-Heavy...



Asset-Light...



...Frees: Time...

Asset-Heavy...



Asset-Light...



...And Frees: Money

Asset-Heavy...



Asset-Light...



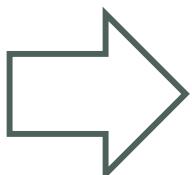
Be a 25 Year Old...

From Hand to Cloud & Back... Cherry Car Wash...

Pull Out Your Smartphone



Rinse &
Repeat...



Set Location

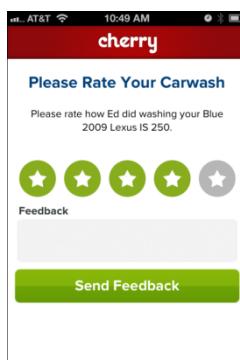
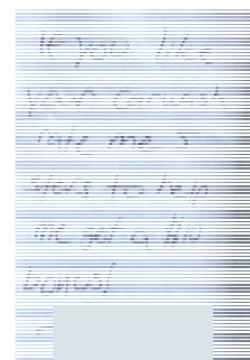
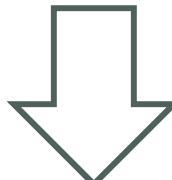


Choose Service



2

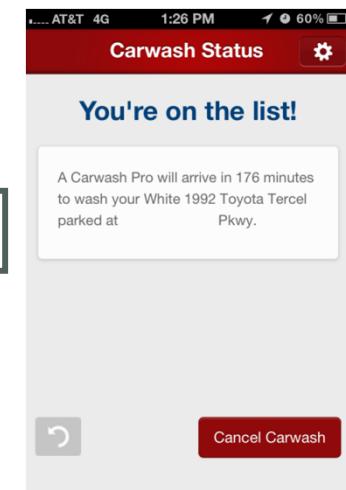
3



Review / Feedback



Receive Service

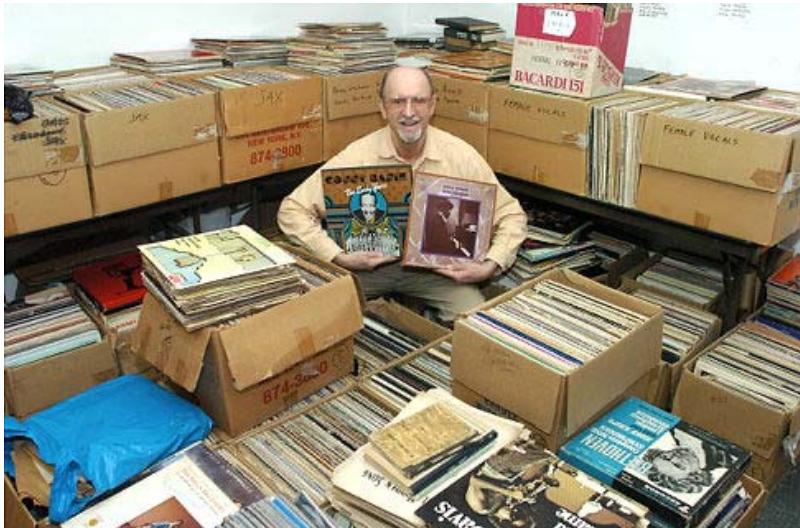


Confirm / Pay

Asset-Light Generation – Music...

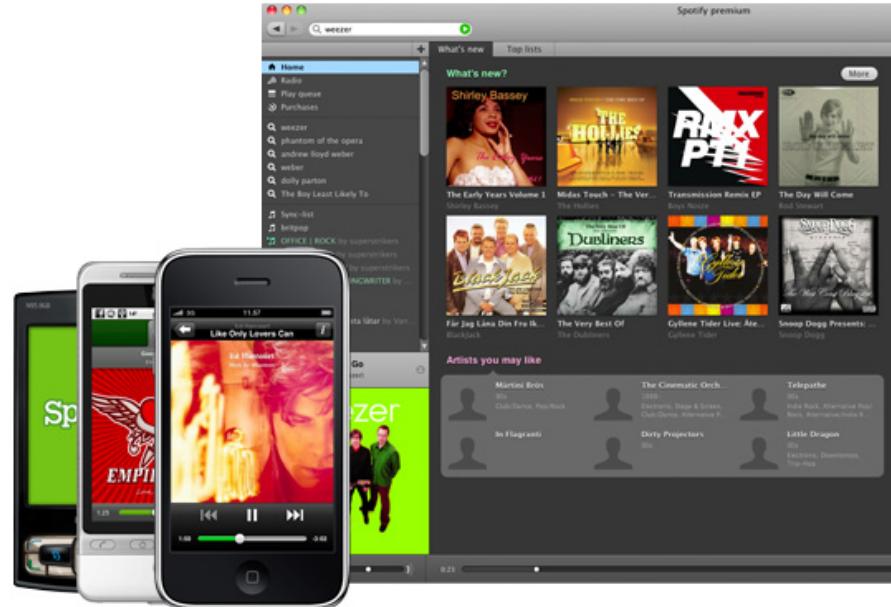
Asset-Heavy...

Pay for Ownership / Buy Albums + CDs in
Stores / Playback via Dedicated Players



Asset-Light...

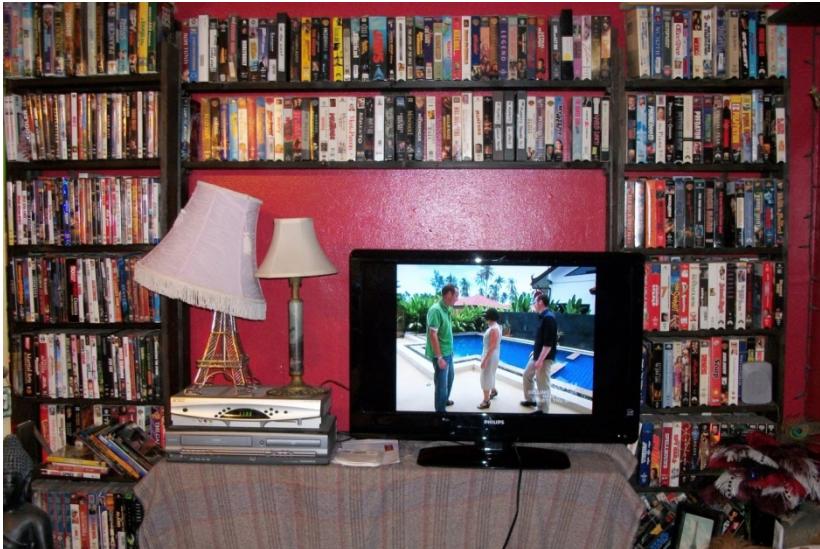
(Spotify, Pandora, iTunes...)
Pay for Access / Instant On-Demand Streaming on
Internet-Enabled Devices / Discovery of Music
Through Friends + Experts /



Asset-Light Generation – Video...

Asset-Heavy...

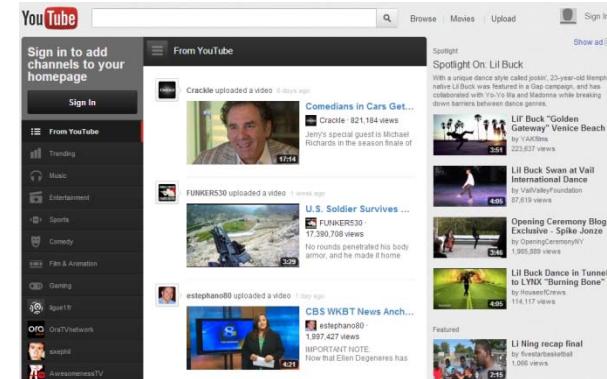
Pay for Ownership / Space Consuming



Asset-Light...

(YouTube / Netflix...)

On-Demand / Instant Access Anywhere / Paid for by Advertising or Subscription



Asset-Light Generation – Housing...

Asset-Heavy...

Dedicated Hotel Buildings / Uniform-Looking
Rooms / 60-80% Utilization



Asset-Light...

(Airbnb / Onefinestay / CouchSurfing...)
Turns Any Privately-Owned House / Apartment / Room
Into a Unique / Local / Adventurous Hotel Experience

A screenshot of the Airbnb website. The main image shows a treehouse built into a large tree with a wooden deck and stairs. The listing is for a treehouse above San Francisco Bay. The page includes navigation links like 'How It Works', 'Sign Up', 'Log In', and 'Wish Lists'. On the right, there's a sidebar with a map of Burlingame, CA, and a section for 'Airbnb Top 40'.

A screenshot of the Onefinestay website. The main image shows a well-decorated room in Central London with yellow walls, framed pictures, and a large window. The listing is for Westminster, Central London, Duke Street 2 from £240 night. The page includes search filters for location, date, guests, bathrooms, bedrooms, and promotion, as well as a map of Central London with specific landmarks labeled A through U. The footer includes an 'About Central London' section and terms of use.

Asset-Light Generation – Getting Around / Riding...

Asset-Heavy...

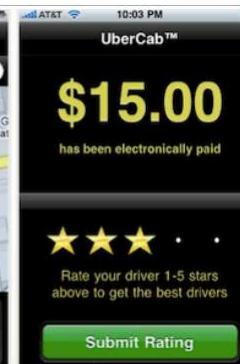
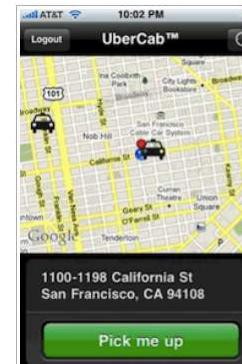
One Car per Person / Inefficient Use of Resources Leading to Traffic Congestion / Pollution



Asset-Light...

(Zipcar / Uber / Hailo...)

On-Demand Car / Ride-Sharing via Mobile Apps / With Reviews / Location-Aware



Asset-Light Generation – Services...

Asset-Heavy...

Do-It-Yourself / Time (Virtual Asset) Consuming



Asset-Light...

(Zaarly / TaskRabbit...)

Getting Grocery Shopping / Laundry / Other Things Done, all via Smartphone

The image displays two screenshots of online platforms for asset-light services:

- Zaarly:** A screenshot of the Zaarly website for the SF Bay Area. It shows a task listing for "Unpacking and new home set-up" with a price of \$330. A woman named Nina Mazur is listed as a verified store-owner. A thumbnail image shows her unpacking a large green plastic bag in a living room.
- TaskRabbit:** A screenshot of the TaskRabbit website for the SF Bay Area. It shows a section titled "Recent Laundry Examples in the SF Bay Area" with three task listings:
 - "Folding clothes/house cleaning 3 hours" by a user with 5 stars and 1 review, with a price range of \$46 - \$64.
 - "Pregnant Mama Needs Your Help :) Unpack & Set Up" by a user with 5 stars and 1 review, with a price range of \$493 - \$667.
 - "Laundry" by a user with 5 stars and 1 review, with a price range of \$27 - \$37.A sidebar on the right shows a map of the San Francisco Bay Area with various locations marked.

Asset-Light Generation – Textbooks...

Asset-Heavy...

Pay for Ownership / Expensive / Inefficient Utilization (Rarely Used After Course Completion)



Asset-Light...

(Chegg / Amazon Textbook Rental...) Pay For Usage Rights During the Semester / Up to 3x Cheaper vs. Buying

A screenshot of the Chegg website. At the top, there is a search bar with the placeholder "Search for book or course". Below the search bar, there is a sidebar with a logo for "Organic Chemistry" and links for "Solutions" and "Q&A". The main content area shows the product page for "Organic Chemistry | 8th edition". It features a thumbnail image of the book, the ISBN (0840054440), the ISBN-13 (9780840054449), and the author (John E McMurry). There are also buttons for "Read while you wait" (7-day eTextbook access) and "Textbook solutions" (Available for this book).

A screenshot of the Chegg website showing the rental options for the "Organic Chemistry | 8th edition" textbook. The page title is "Rent \$103.99". It includes the rental price (\$103.99), the due date (12/21/2012), and the option to "Read While You Wait" (Free). There is also a checkbox for "Textbook solutions" (\$9.99). Below this, there is an option to "Buy from \$202.99".

Asset-Light Generation – Wallet...

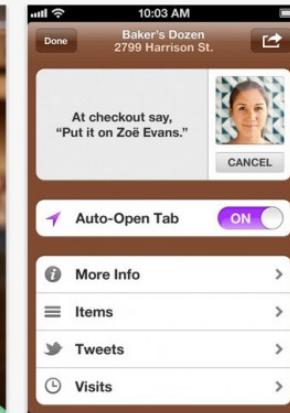
Asset-Heavy...

Wallet with Cash / Coins / Credit Cards /
Reward Cards



Asset-Light...

(Square / PayPal / Google / Apple ...)
Smartphone is the New Wallet w/ Payment Capability /
Reward Cards / Boarding Passes / eTickets



Asset-Light Generation – Employment...

Asset-Heavy...

Full Time / Fixed Cost



Asset-Light...

(oDesk, Freelancer, OnForce...)

Workforce as a Service (WaaS) / On-Demand / Global / 24x7 / Variable Cost



Hire online for a fraction of the cost!

Freelancer.com is the world's largest outsourcing marketplace, empowering entrepreneurs & small businesses worldwide.

- ✓ Outsource anything you can think of!
- ✓ Projects start at \$30 and the average job is under \$200
- ✓ Programmers, designers, content writers are ready now!
- ✓ Only pay freelancers once you are happy with their work

Re-Imagination of Flexibility...

Easier for Consumers to Get What They Want When They Want it...

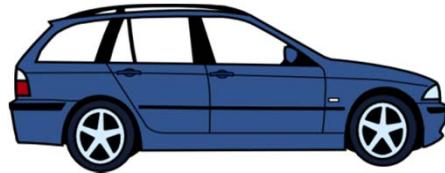
Easier for Crafty & Flexible People to Make Money...

*NET, LOTS OF STUFF BEING RE-
IMAGINED AND THERE'S A LOT MORE
TO BE RE-IMAGINED...*

Consumer Internet ‘White Space’ To Be Re-Imagined...



- 1) **Ear (+ Body)** - owing to better devices (wireless Bluetooth) / services (Siri / Spotify / Soundcloud...) / products (Jambox / 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+ American households have Internet-enabled TVs

...Consumer Internet ‘White Space’ To Be Re-Imagined



- 4) **Back Pocket** – 600MM+ credit cards in use in USA, average American carries 3-4 credit cards in addition to check cards / loyalty cards / coupons / cash in wallet. 17% average credit card borrowing rate vs. 1.7% 10-Year US Treasury bond yield*.



- 5) **Education** – \$1.1T+ annual spending on education in USA, \$460B+ = post-secondary, cost of going to college up +2x (inflation adjusted) over 30 years, \$914B** student loans outstanding (\$25K per graduating student), bigger than credit card (\$672B) & auto loans (\$750B). Student loans up 8x over ten years.

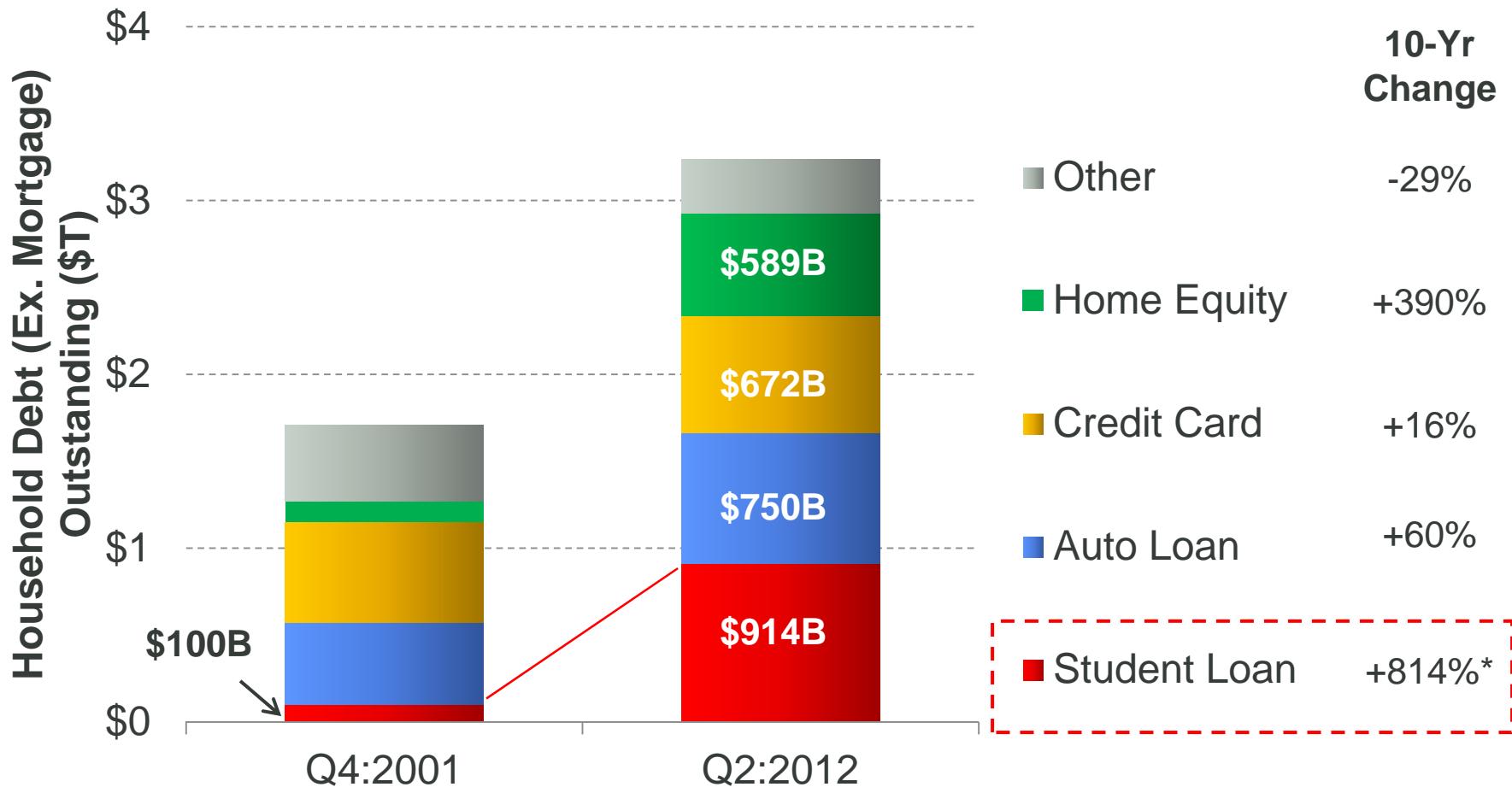


- 6) **Healthcare** – \$2.6T+ annual spend on healthcare in USA, 18% of GDP in 2010, up from 5% 50 years ago, and 2x OECD average, 32% of Americans considered obese in 2008, up from 15% in 1990.***

Source: *Credit Card #s per Federal Reserve Bank of Boston, Credit Card interest rate per Indexcreditcards, 10-year Treasury yield are 11/12 averages, per Dept. of Treasury, **Federal Reserve Bank of New York, *** Center for Medicare & Medicaid Services, OECD, Center for Disease Control.

USA Student Loans Outstanding = \$914B, Up 8x vs. 10 Years Ago, Higher Than Auto Loan & Credit Card Debt

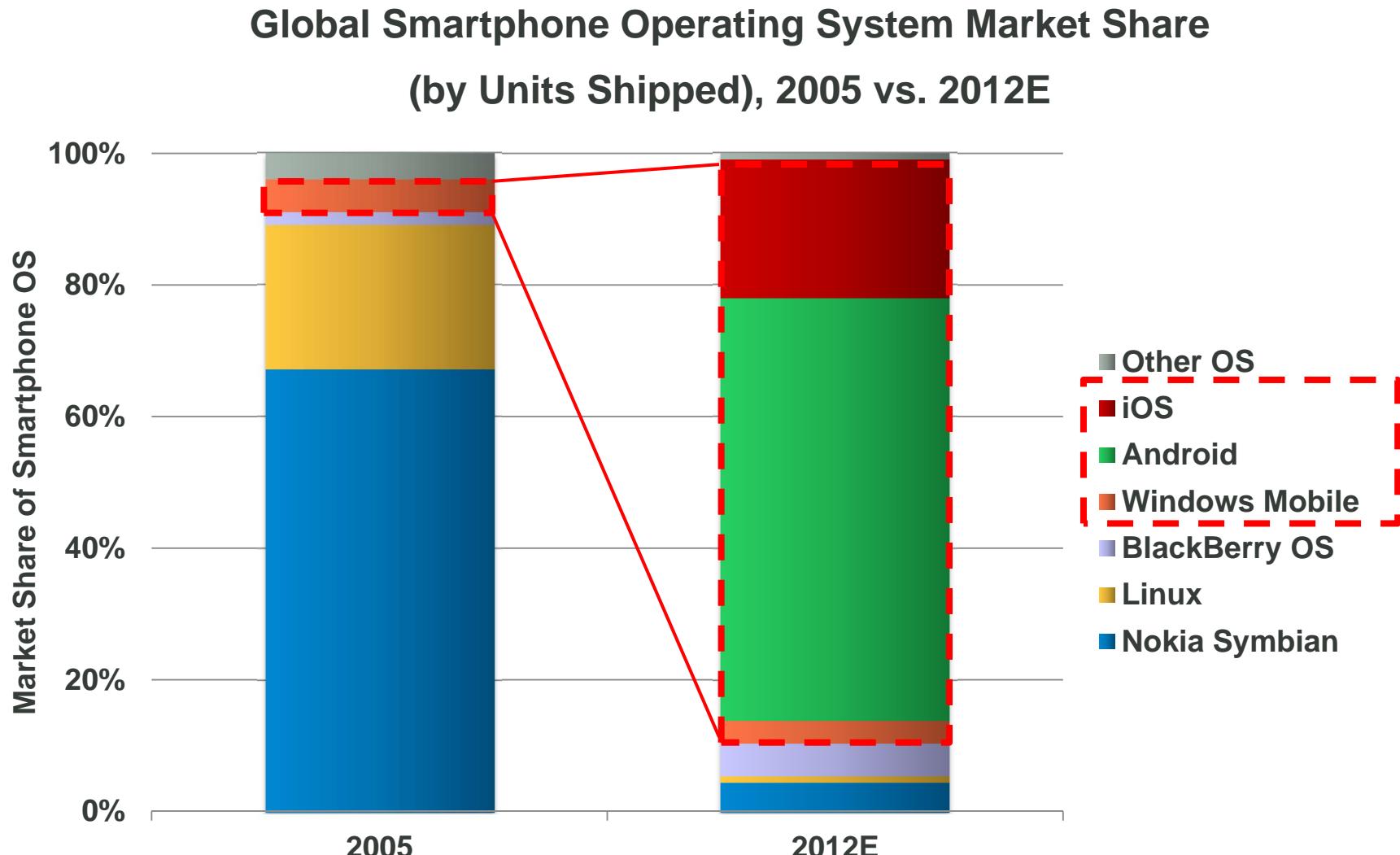
USA Household Debt (Ex. Mortgage) Outstanding by Type, Q4:2001 vs. Q2:2012



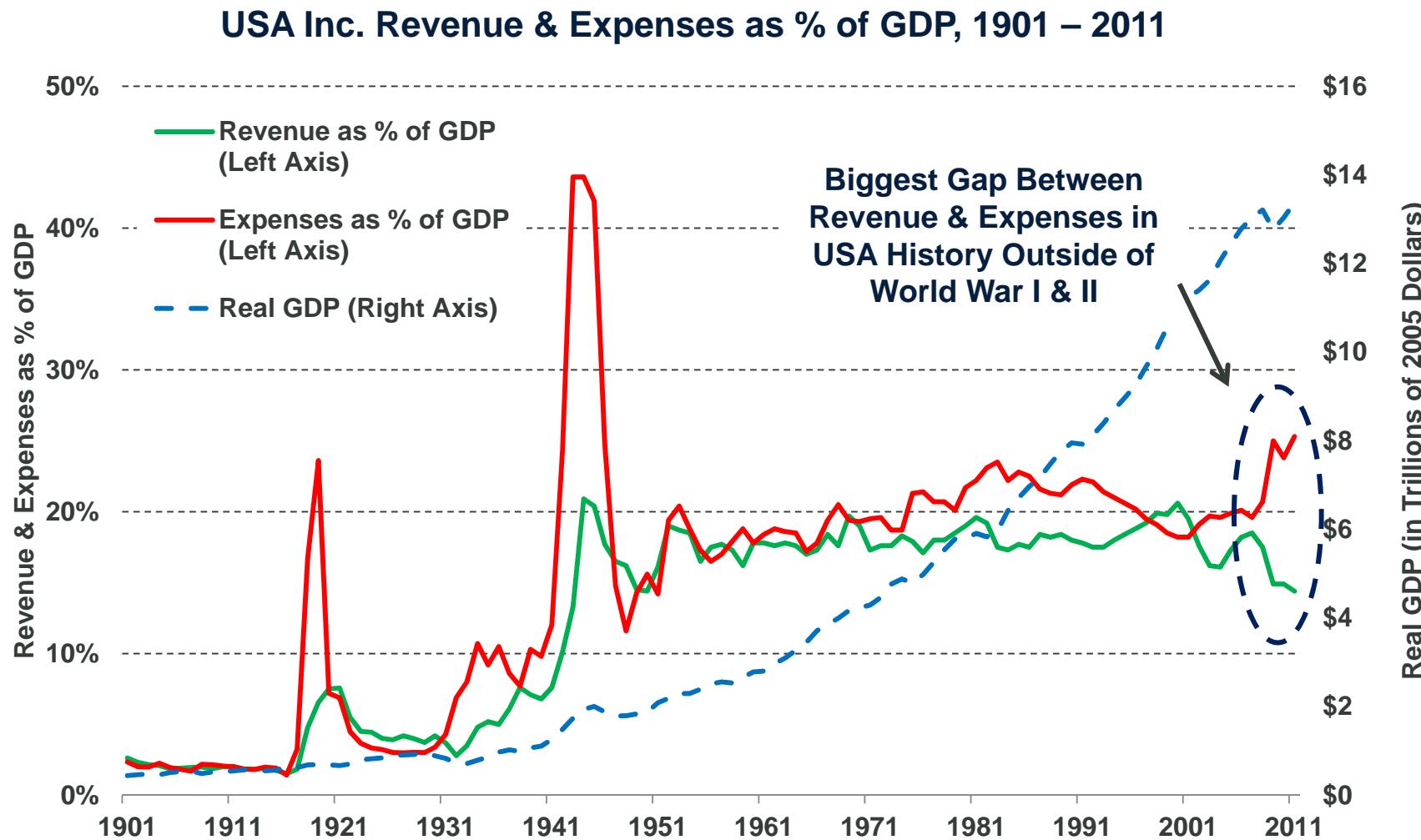
Note: *Federal Reserve Bank of New York improved measurement for student loans in 2011 and believes that student loan data prior to 2011 may be under reported. 'Other' category includes personal loans, retail (clothing, grocery, department stores, home furnishing, gas, etc) loans. There're 36MM+ people with outstanding student loans in USA, average outstanding student loan amount was \$23,300, per FRB NY analysis of 241MM people with Equifax credit reports in 2/12. Source: Federal Reserve Bank of New York.

**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 = 88% Share from 5% Six Years Ago



USA, Inc. – Biggest Gap Between Revenue & Expenses in USA History Outside of World War I & II



ARE YOU HAPPY WITH WHERE YOUR TAX DOLLARS GO?

57%

20%

16%

6%

ENTITLEMENTS

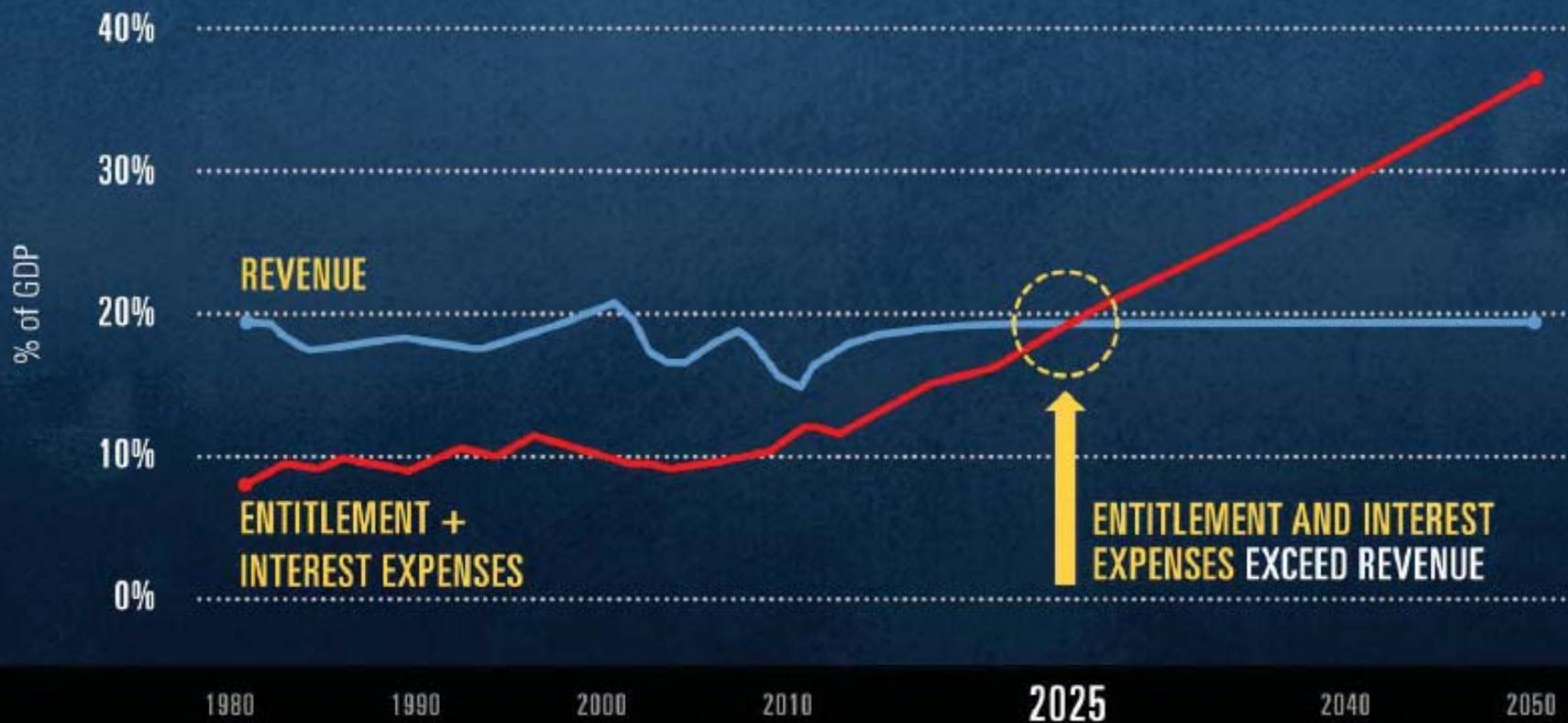
DEFENSE

OTHER*

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**



SOURCE: CONGRESSIONAL BUDGET OFFICE, 2010: USA INC. REPORT PAGE 174. 84

America's Debt Level Relative to Other Countries – You Do the Math...

2010 Gross Government Debt				2010 Gross Government Debt			
Rank	Country	(\$B)	% of GDP	Rank	Country	(\$B)	% of GDP
1	Japan	\$12,009	220%	16	Hungary	\$105	80%
2	Jamaica	19	143	17	Israel	168	77
3	Greece	436	143	18	UK	1,699	76
4	Lebanon	53	134	19	Egypt	161	74
5	Iraq	97	120	20	Austria	272	72
6	Italy	2,445	119	21	Sudan	47	72
7	Belgium	452	97	22	Brazil	1,397	67
8	Singapore	214	96	23	Jordan	18	67
9	Ireland	196	95	24	Côte d'Ivoire	15	67
10	USA	13,707	94	25	India	1,046	64
11	Portugal	213	93	26	Netherlands	497	64
12	Iceland	12	92	27	Cyprus	14	61
13	Germany	2,759	84	28	Spain	848	60
14	Canada	1,324	84	29	Uruguay	23	57
15	France	2,110	82	30	Pakistan	100	57

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).

USA Inc. @ kpcb.com / youtube.com / amazon.com

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32K+ YouTube Views



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

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