Internet Trends 2013

Mary Meeker

May 29 @ D11 Conference

INTERNET TRENDS
D11 CONFERENCE

5 / 29 / 2013

Mary Meeker / Liang Wu

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Outline

- **Key Internet Trends –** Growth Continues
- **Re-Imagination –** Being Re-Imagined & Uploaded
- **Mobile –** Aggressive Momentum
- **Computing –** Yet Another Platform Change…
- **Lots to Learn from China –** Volume + Innovation
- **Most Enabled Entrepreneurs Ever?**
- **So, You Want to Be a Public Company?**
- **High-Skilled Immigration –** Perspective
- **Appendix**
  - Re-Imagination is Alive & Well
  - Traditional Industries Being Re-Imagined
  - USA, Inc.

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KEY INTERNET TRENDS – GROWTH CONTINUES

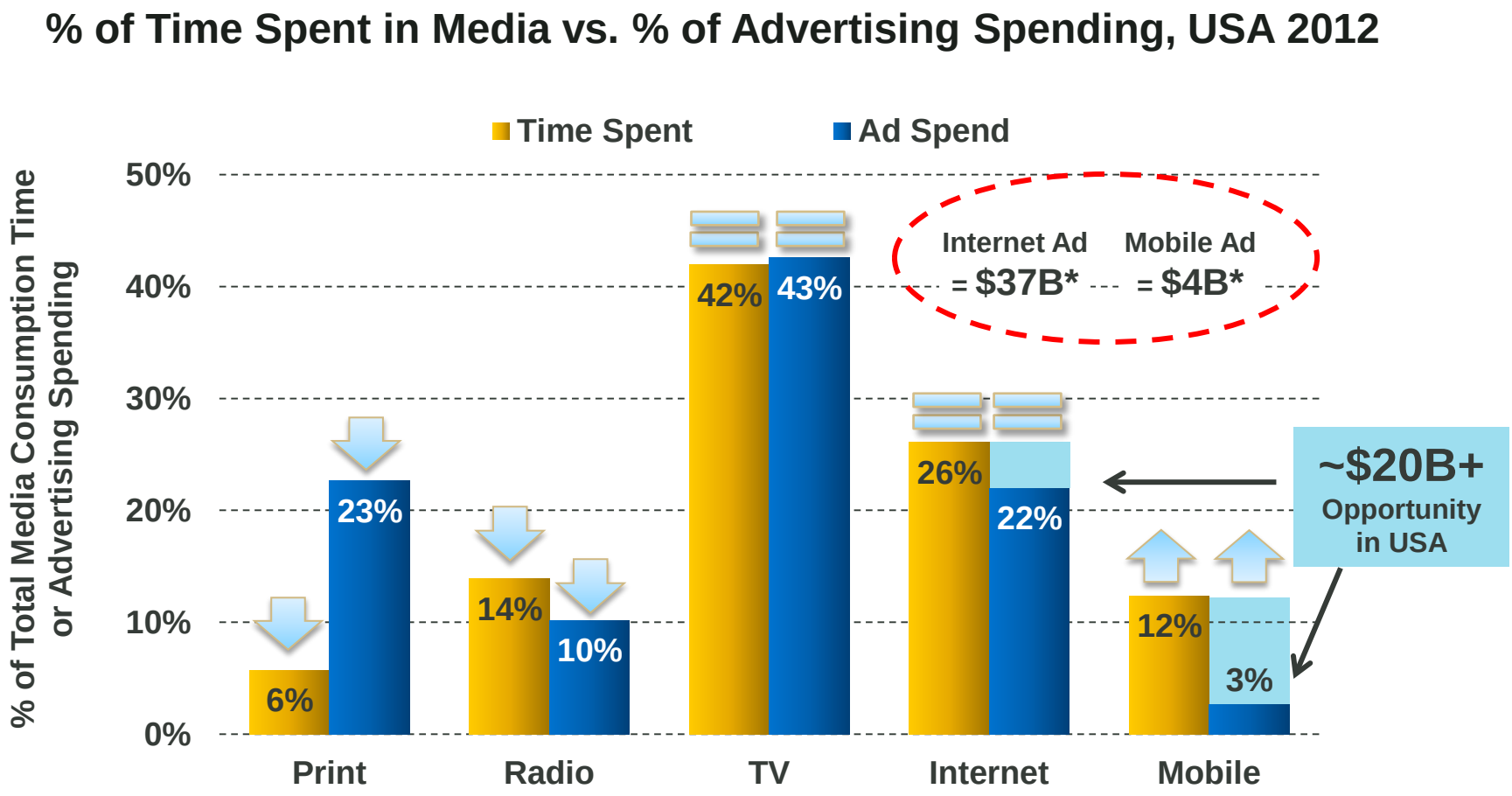
2.4B Global Internet Users in 2012* – 8% Y/Y Growth*, Driven by Emerging Markets

Rank	Country	2008-2012 Internet User Adds (MMs)	2012 Internet Users (MMs)	Y/Y Growth	Population Penetration
1	China	264	564	10%	42%
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	654	1,473	15%	34%
	World	902	2,406	8%	34%

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Note: *All data (except China) as of 6/12, 2.4B global Internet users and 8% Y/Y growth rate based on the latest available data. China Internet user data as of 12/12, per CNNIC. Source: United Nations / International Telecommunications Union, internetworldstats.com.

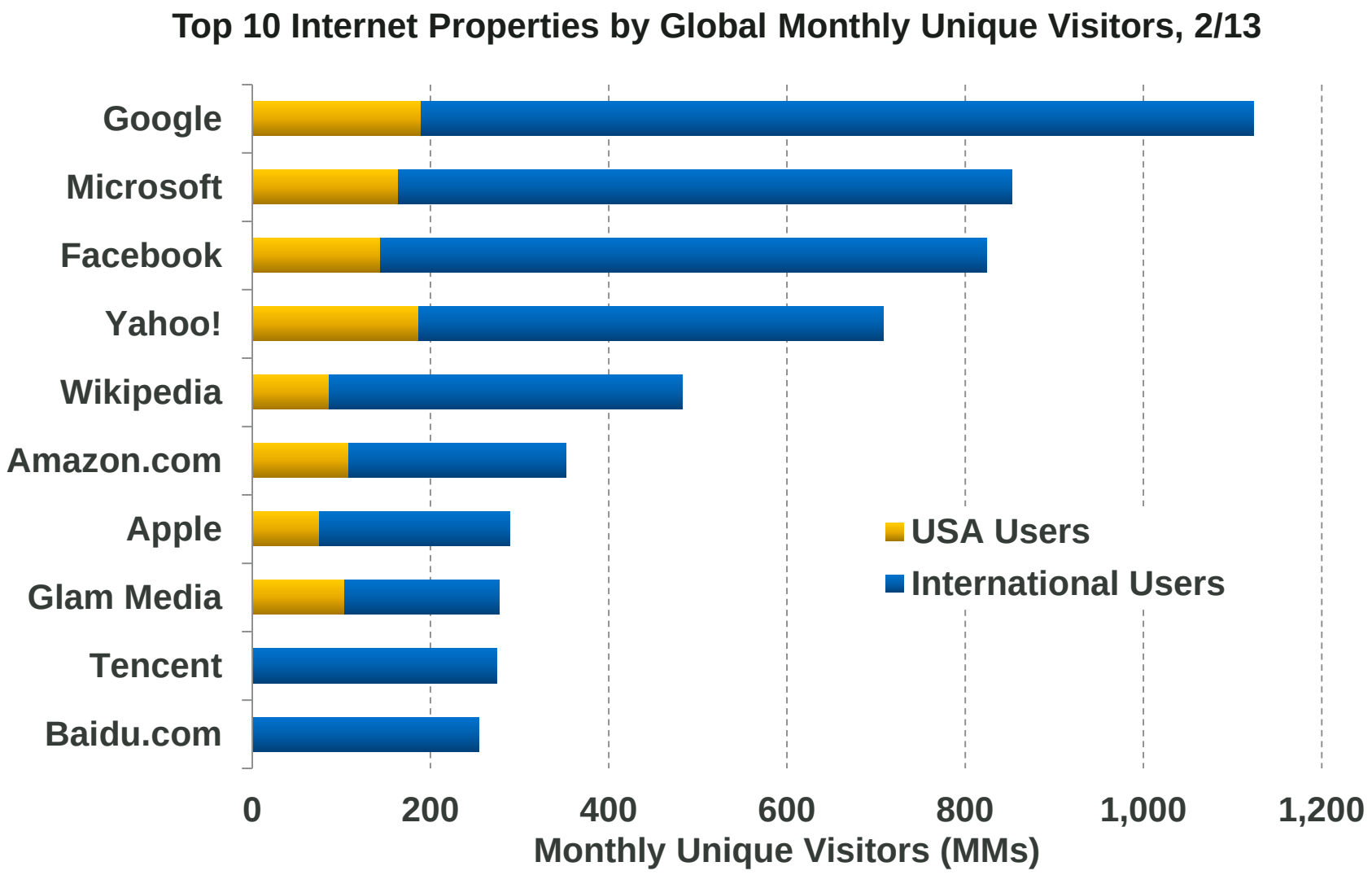
Material Upside for Mobile Ad Spend vs. Mobile Usage



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Note: *Internet advertising reached $37B in USA in 2012 per IAB, Mobile advertising reached $4B per eMarketer. 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 based on eMarketer (adjusted to exclude outdoors / classified media spend), 12/12.

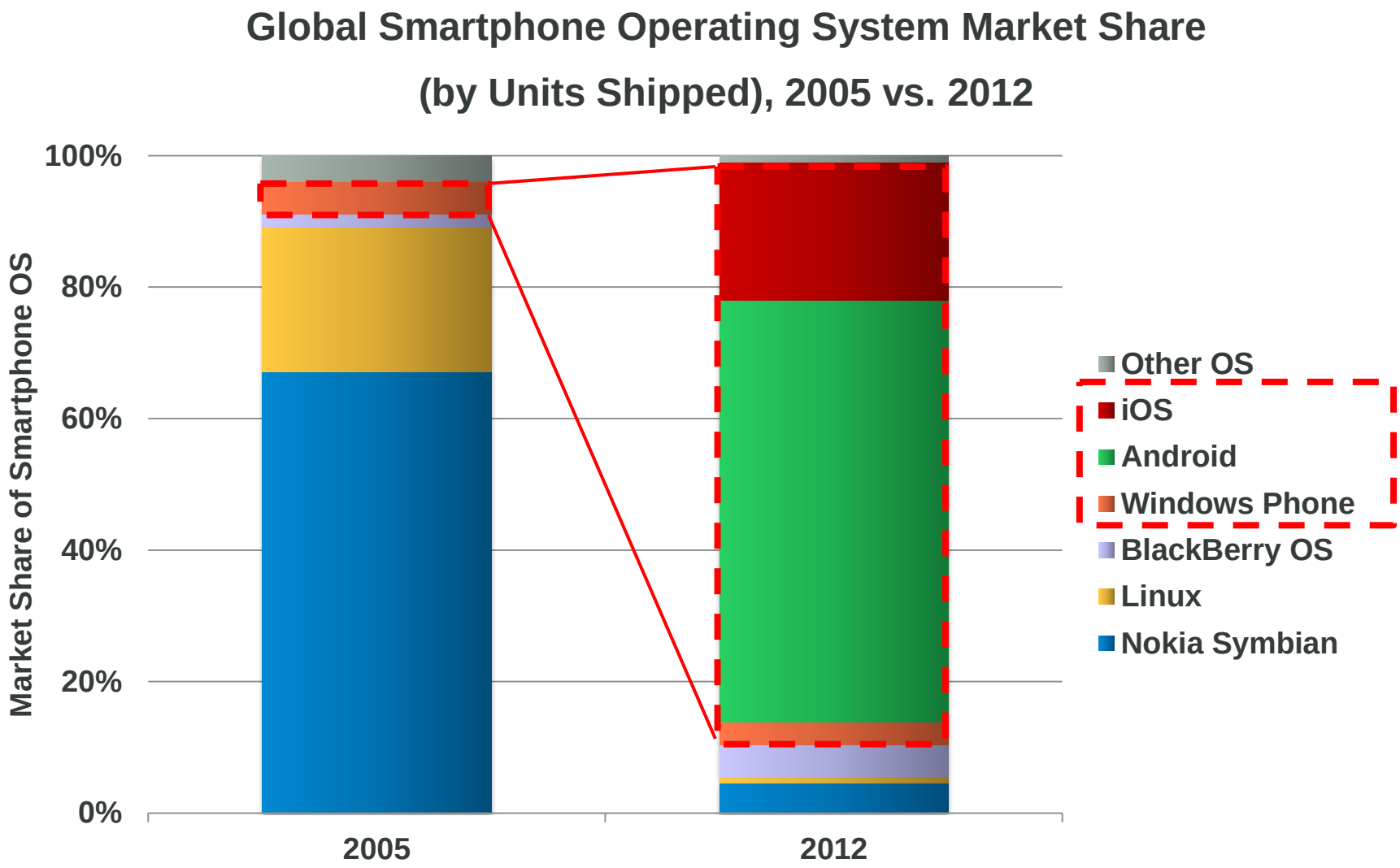
80% of Top Ten Global Internet Properties 'Made in USA'… 81% of Users Outside America



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Source: comScore Global, 2/13.

Global Smartphone Operating Systems ‘Made in USA’… 88% Share from 5% Six Years Ago



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Source: 2005 data per Gartner, 2012 data per IDC.

RE-IMAGINATION -
BEING RE-IMAGINED & UPLOADED @ AN ACCELERATING PACE

Long Ago, People Danced @ Concerts, Now They Video / Click / Share / Tweet…

1990s



2010s



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Source: Left image – 123RF.com. Right image – amadarose.co.uk.

Today = *You Can Run, But You Can't Hide*

1993

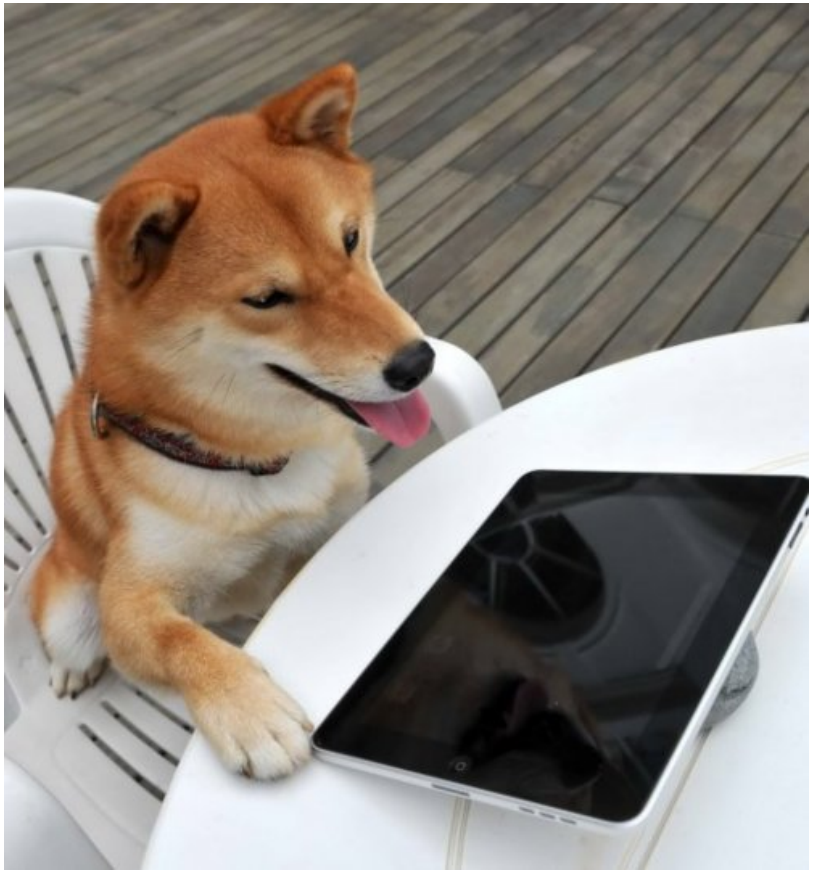
On the Internet, <u>nobody</u> knows you're a dog.



"On the Internet, nobody knows you're a dog."

2013

On the Internet, <u>everybody</u> knows you're a dog.

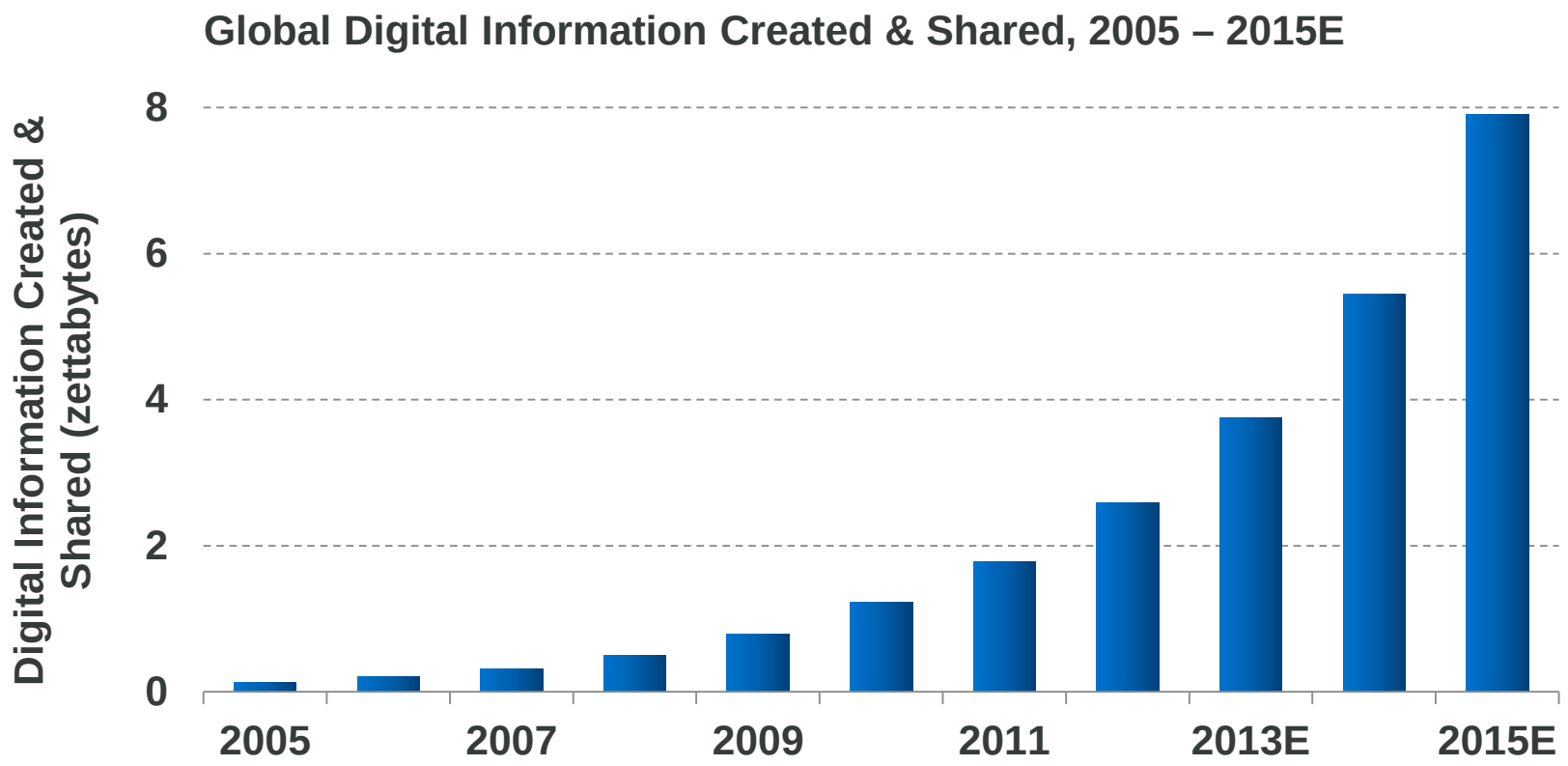


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Source: Quote – Joe Louis (American heavyweight boxer), 1946. Left image – Peter Steiner, cartoonbank.com, The New Yorker, 1993. Right image – Tumblr user cachorro no computador.

World's Content is Increasingly Findable + Shared + Tagged - Digital Info Created + Shared up 9x in Five Years

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.*



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Note: * 1 zettabyte = 1 trillion gigabytes. Source: IDC report "Extracting Value from Chaos" 6/11.

Media + Data Uploading + Sharing from Mobiles = Ramping Fast & Still Early Stage

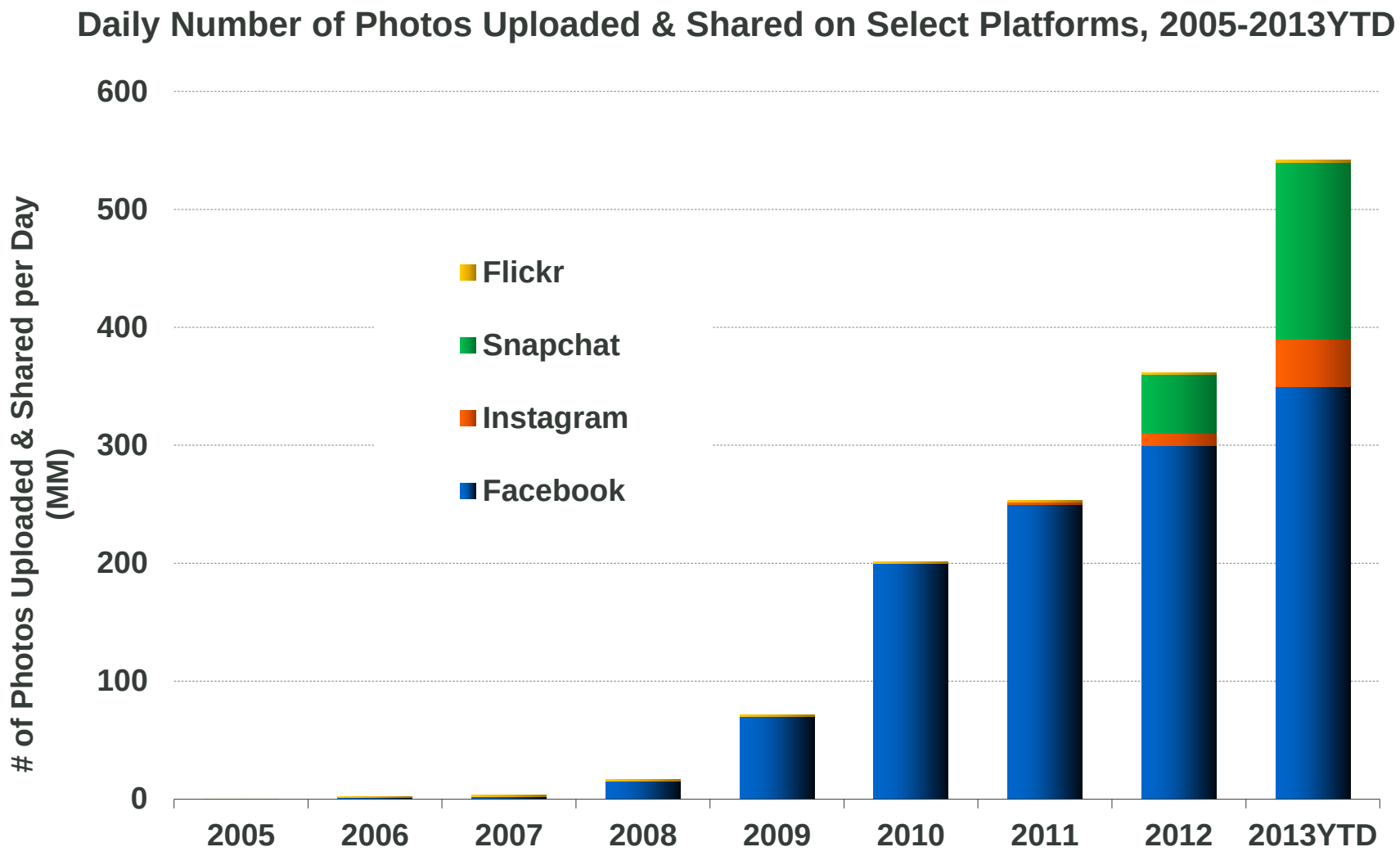
First	Now	Next	Next
			
PHOTOS	VIDEO	SOUND	DATA
Explosive Growth, But Still Early Stage	**Ramping Very Fast**	**Emerging**	**Emerging**

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Source: Far right Illustration – Eric Prommelt.

Photos…

Photos = 500MM+ Uploaded & Shared Per Day, Growth Accelerating, on Trend to Rise 2x Y/Y…

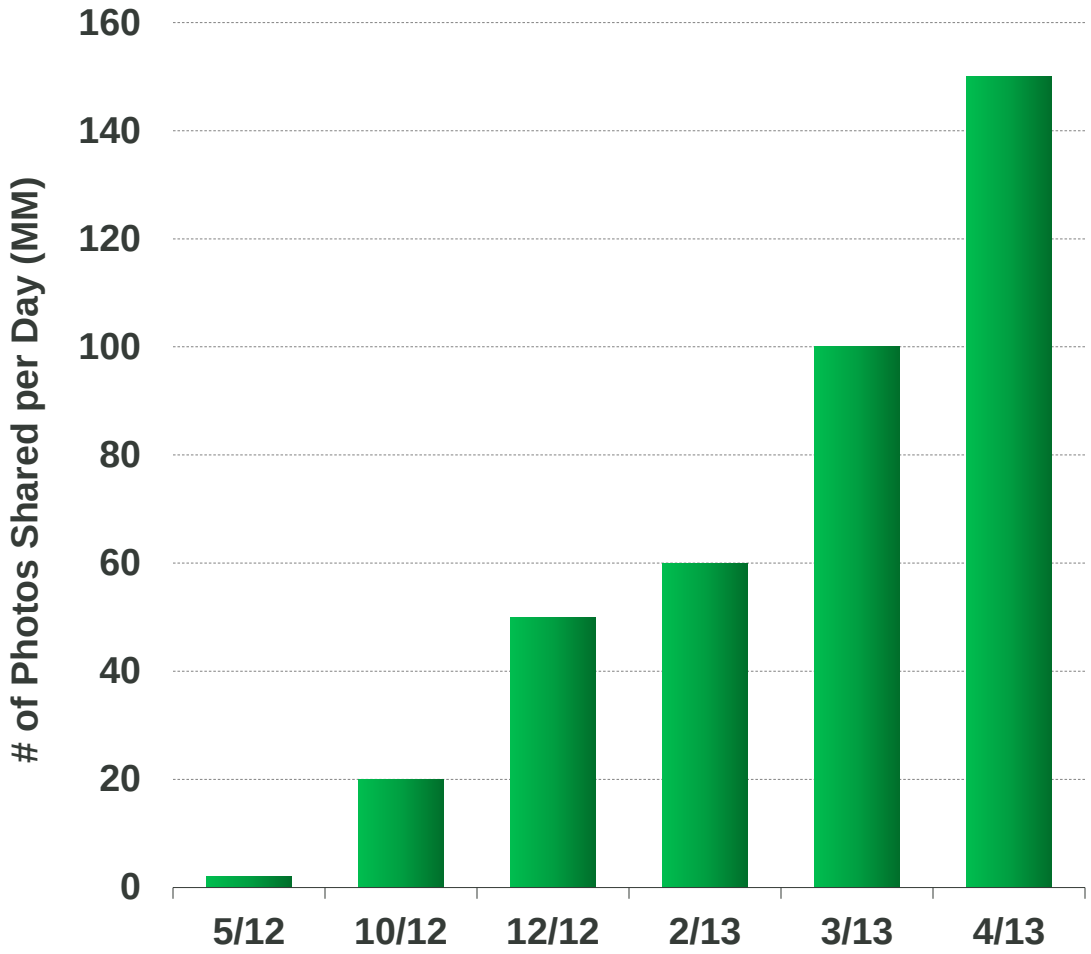


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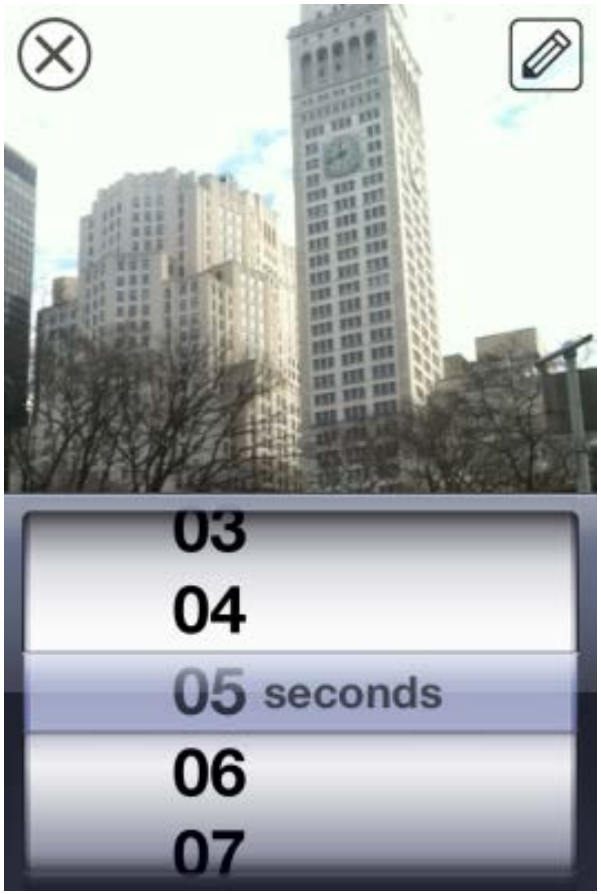
Source: KPCB estimates based on publicly disclosed company data.

Short-Term Sharing Exploding – Snapchat Growth From Content That Disappears, Up >2x in 2 Months

Snapchat Daily Number of 'Snaps'
5/12 – 4/13



Choose How Long Your 'Snap' Lives

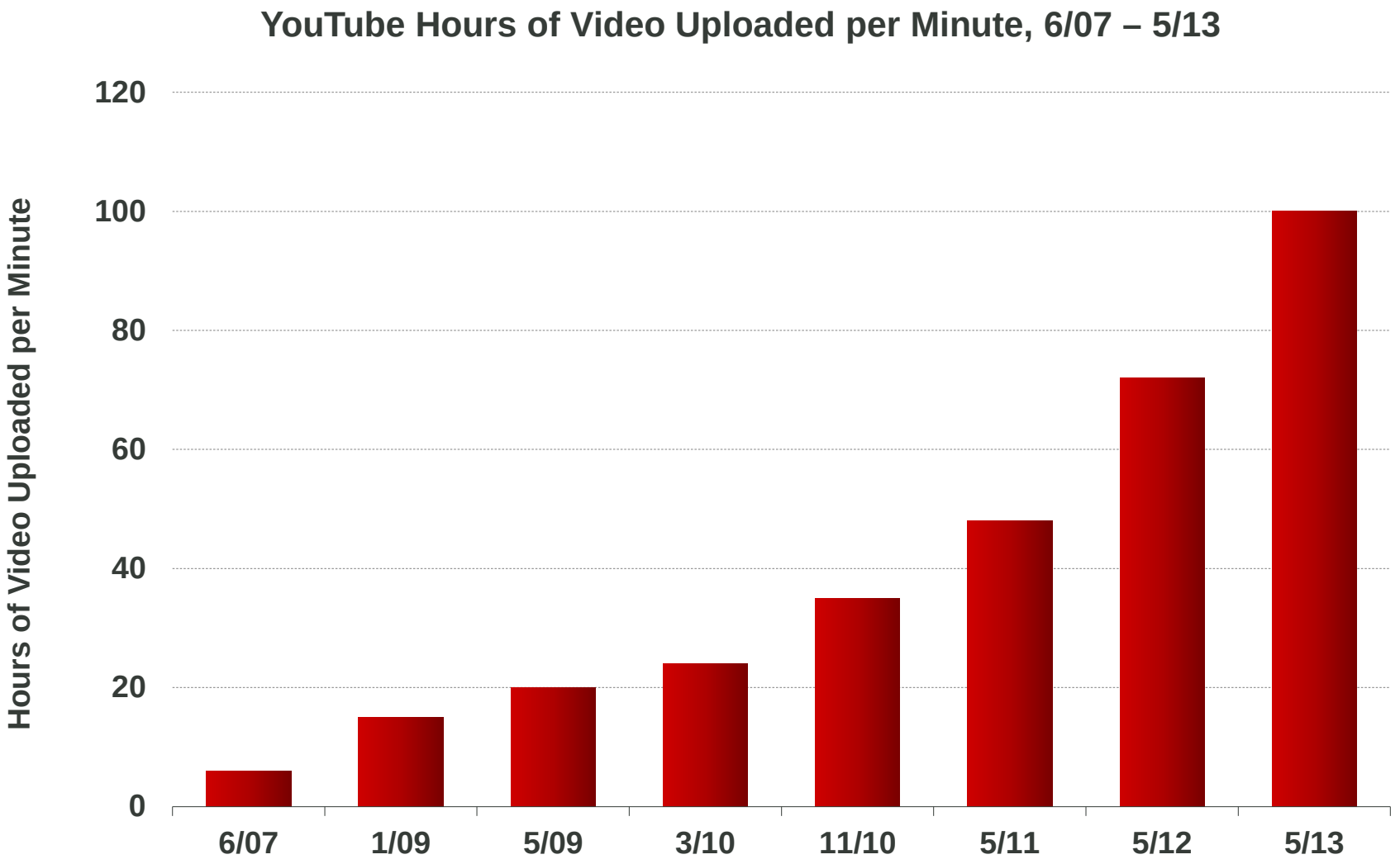


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Source: Snapchat.

Video…

Video = 100 Hours Per Minute Uploaded to YouTube, Up from ~Nada Six Years Ago



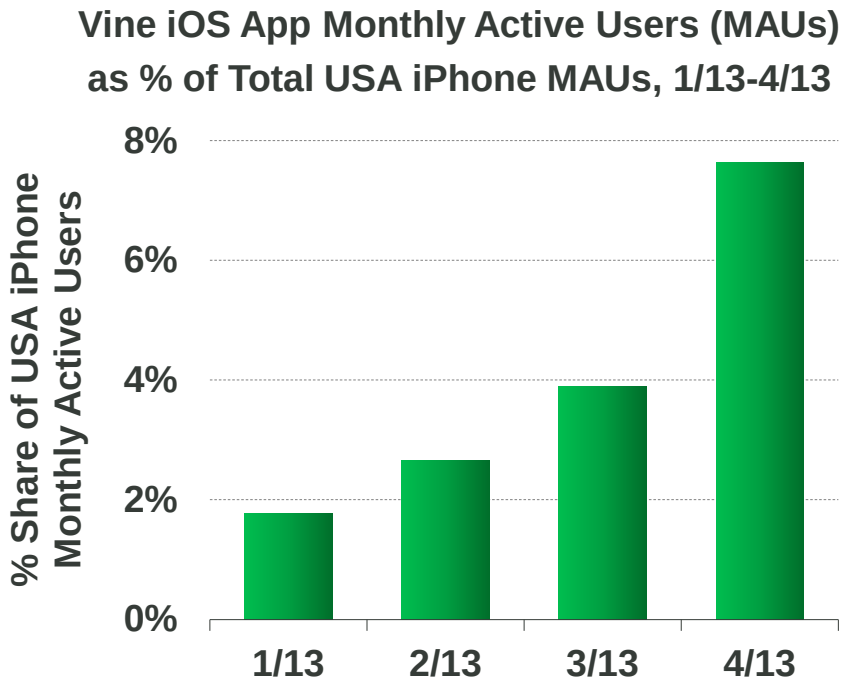
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Source: YouTube.

Video (Short-Form + Persistent) = Ramping Fast

Twitter Vine

6 Second Videos
2x M/M Growth



Dropcam ($149 ASP)

More Video
Uploaded per Minute Than YouTube



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Source: Onavo, Dropcam.

Opt-In Video – ‘Big Brother’ Meets Big Mother?

30% of Dropcam viewers used Talk Back to interact over past 2 weeks.

When I am on the road, I still join my husband in singing bedtime lullabies using Dropcam, a Wi-Fi video monitoring camera that streams to my phone and computer.

– Randi Zuckerberg

Parents Can See & Talk With Children While Away From Home





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Source: Dropcam,5/13. Mashable, 4/13

Sound…

Sound =
Emerging as Voice Comes Back to Phones…

SoundCloud

11 Hours of Sound Uploaded per Minute



Tencent WeChat

400MM+ Users, 4x Y/Y



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Source: SoundCloud, Tencent.

Data…

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Win-Win-Win Sharing = Growing Quickly – You Help Me, I Help You, We Help Others

Waze

- 48MM Users, +2x Y/Y
- 1B+ Miles Driven per Month w/ Waze Open



Jawbone UP

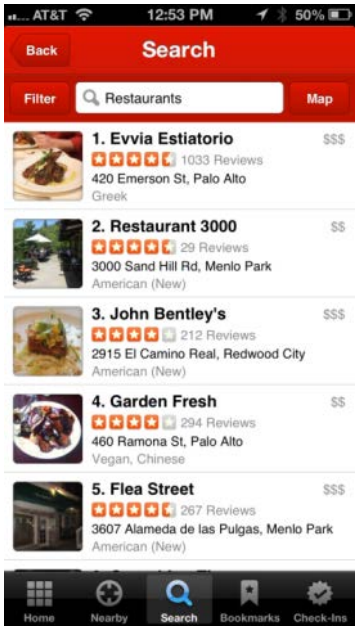
Per Day…

- Billions of Steps
- 700K+ Hours of Sleep
- 5x App Interactions per User



Yelp

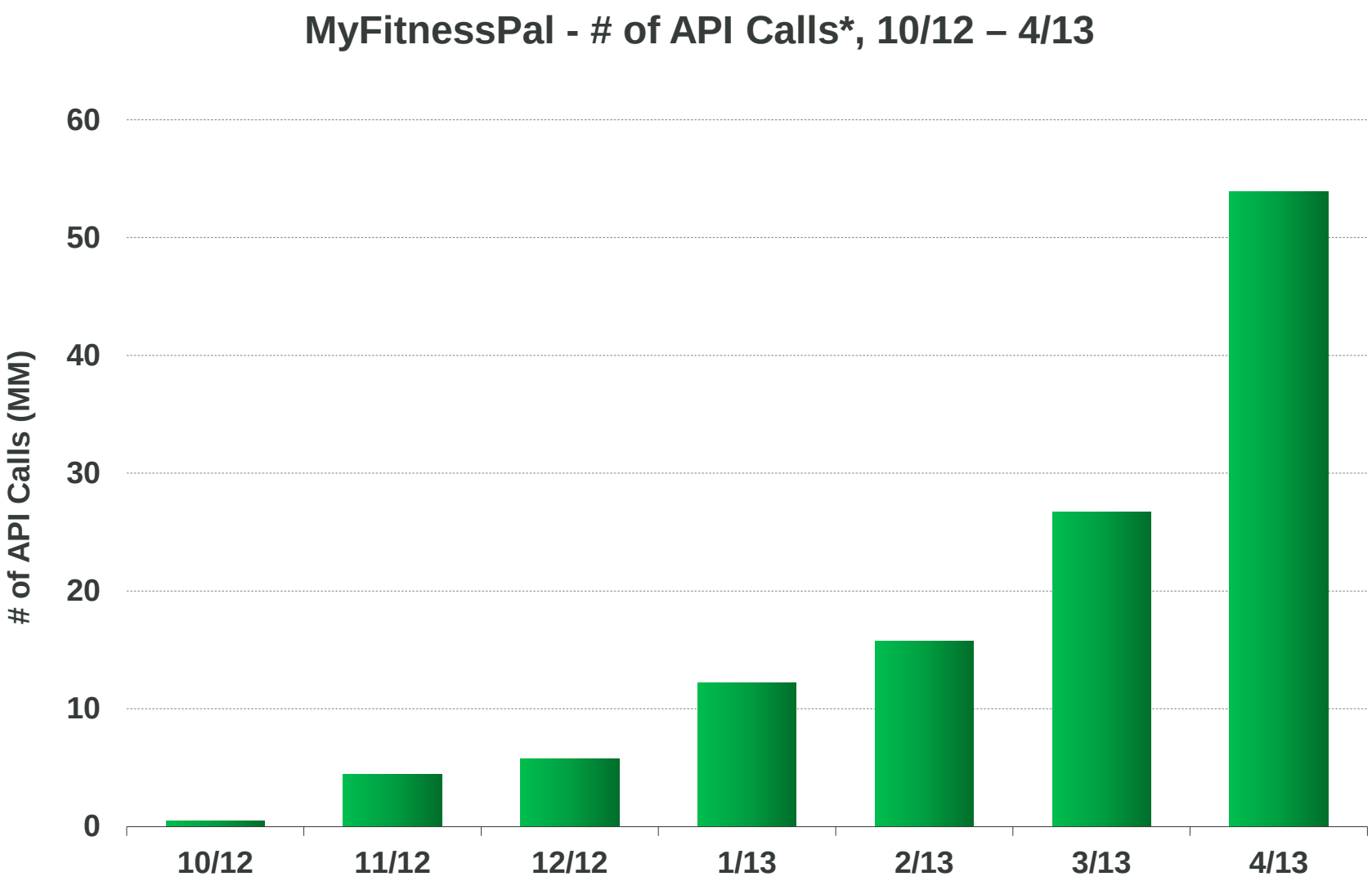
- 102MM Users, +43% Y/Y
- 39MM User-Generated Reviews, +42% Y/Y



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Source: Company data.

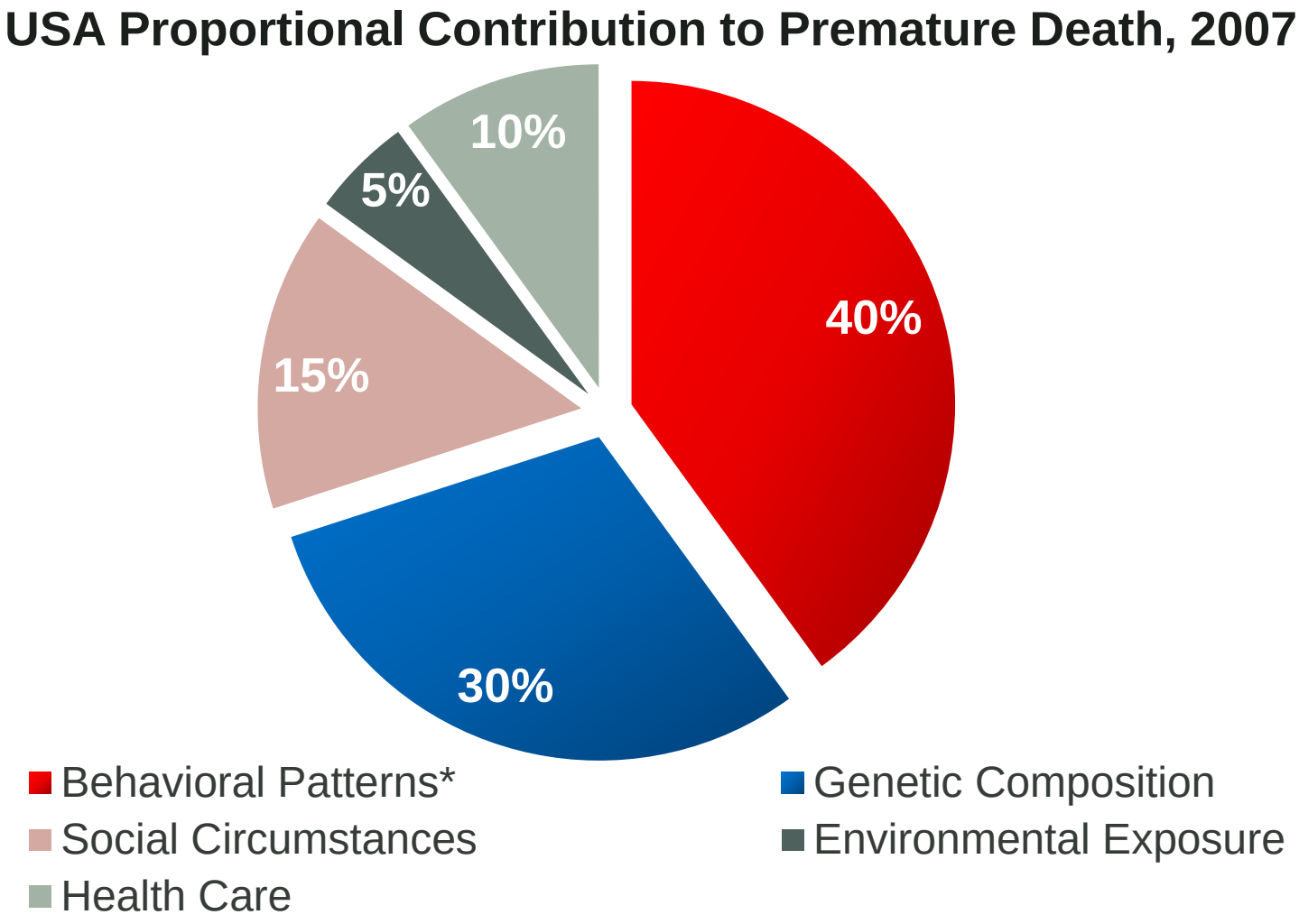
Fitness Data on Mobile + Wearable Devices = ~2x Month-on-Month Growth



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Note: *API calls are data request from fitness devices (such as Jawbone UP) and GPS-enabled activity tracking apps (such as Endomondo / Runtastic) that partner with MyFitnessPal. Source: MyFitnessPal.

Health Outcomes –
Behavior (at 40%) is Biggest Driver of Premature Death



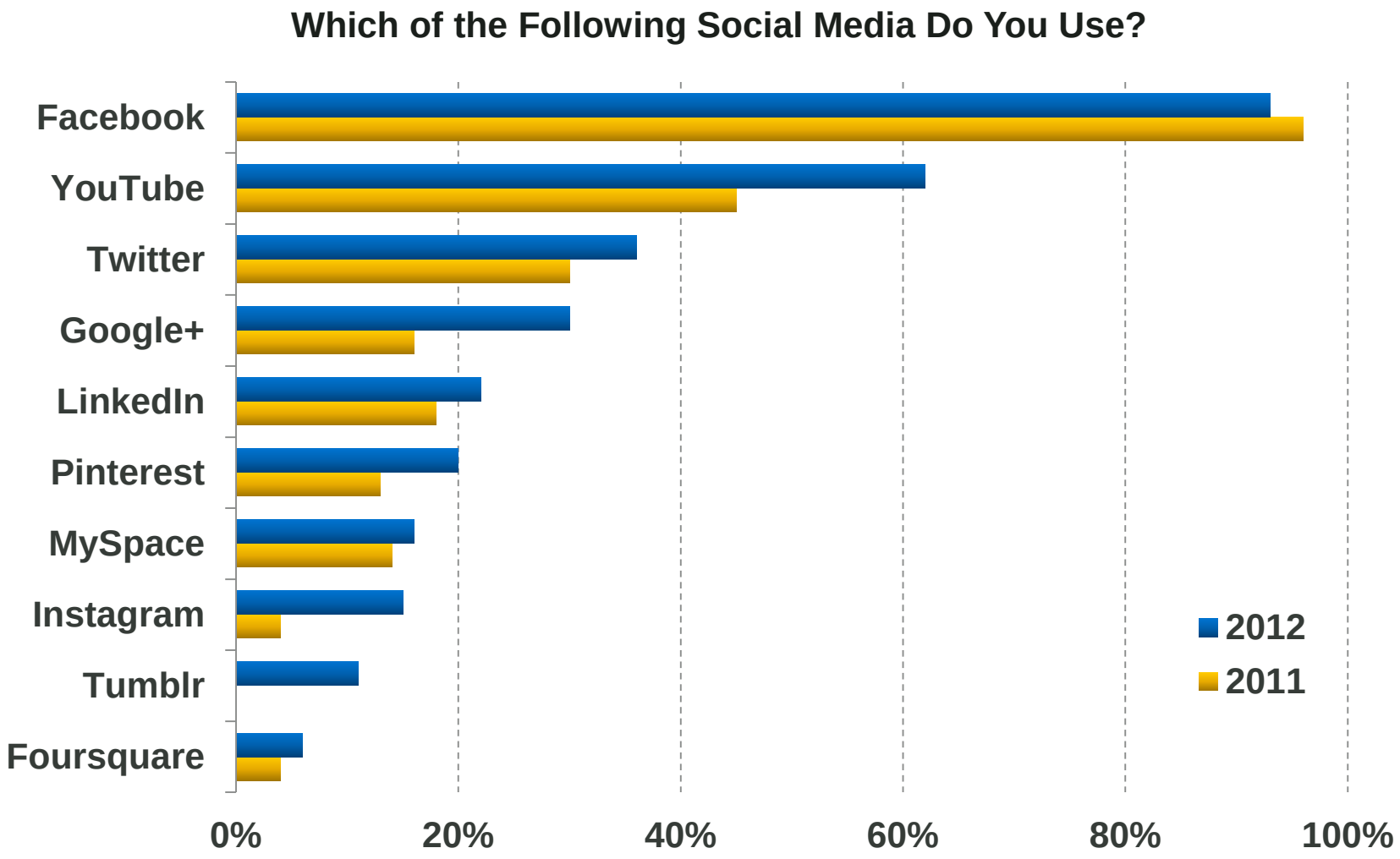
*Smoking: 44%, Obesity & Inactivity 37%, Alcohol 9%, Other 10%.

Source: "We Can Do Better — Improving the Health of the American People" - The New England Journal of Medicine, 2007.

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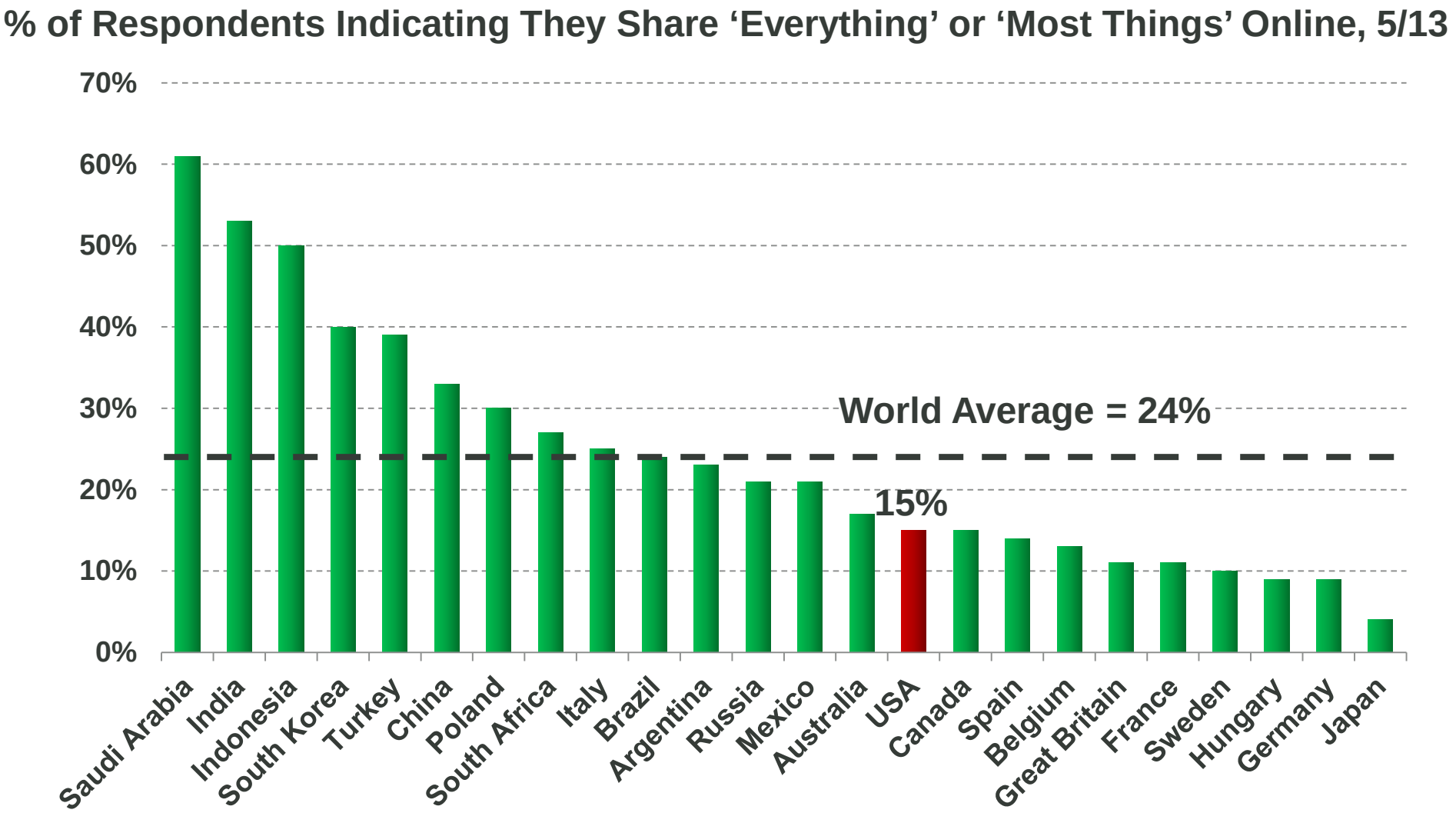
Sharing…

Social Media – Facebook Leads, YouTube + Twitter + Google+ + Pinterest + Instagram + Tumblr Rising Fast



Source: Frank N. Magid Associates, "Facebook Fatigue - Fact or Fiction?", March 2013.
Based on a study of 2K social media users aged 12-64 who were asked "Which of the Following Social Media Do You Use?"
2011 Pinterest and Instagram data from 9/12 / 4/12.

Americans = Sharing Underachievers…



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Note: Survey question is 'describe how much you share online (including status updates, feelings, photos, videos, links, etc.)'
Source: Ipsos Open Thinking Exchange, via Marketingcharts.com.

Unprecedented Transparency in Time of Tremendous Global Uncertainty…

Ramp in Always-On Connected Global Citizens

- 1.1B+ global active Facebook users…68% on mobiles…60% log in daily…with average 200+ friends… 350MM photos uploaded daily…*
- It's hard to hide - 'truth' can be a photo or video / click–send away.
- 'Clean, well-lighted place to do business?' 'People are basically good?'
- Perhaps the world is on cusp of being safer than ever?
- There are lots of sacrifices. This is new terrain.
- Only time will tell how all this plays out…

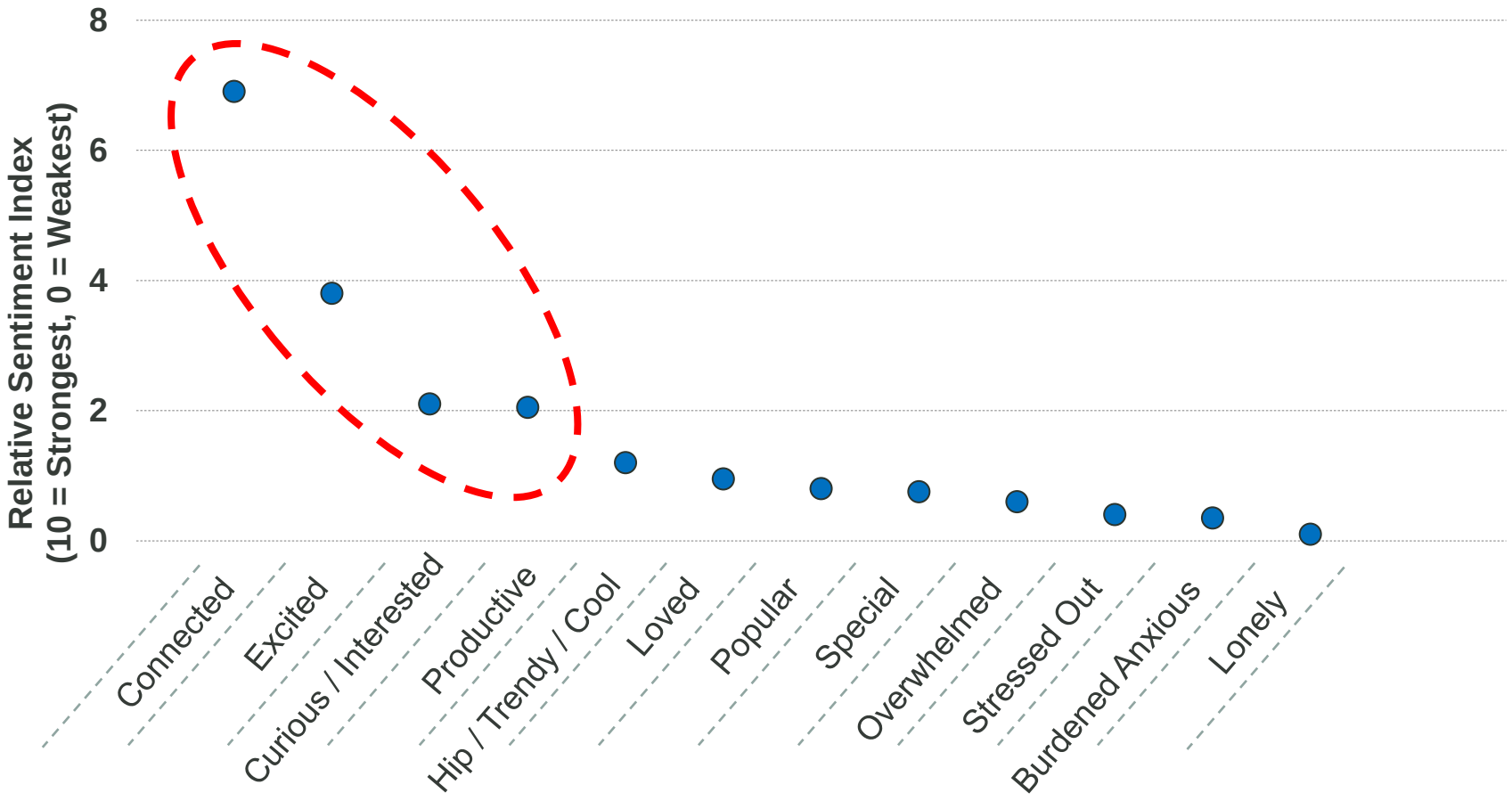
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* Source: Facebook, 5/13.

MOBILE –
AGGRESSIVE MOMENTUM

Smartphones = Extraordinary Attributes -
Connected + Excited + Curious / Interested + Productive

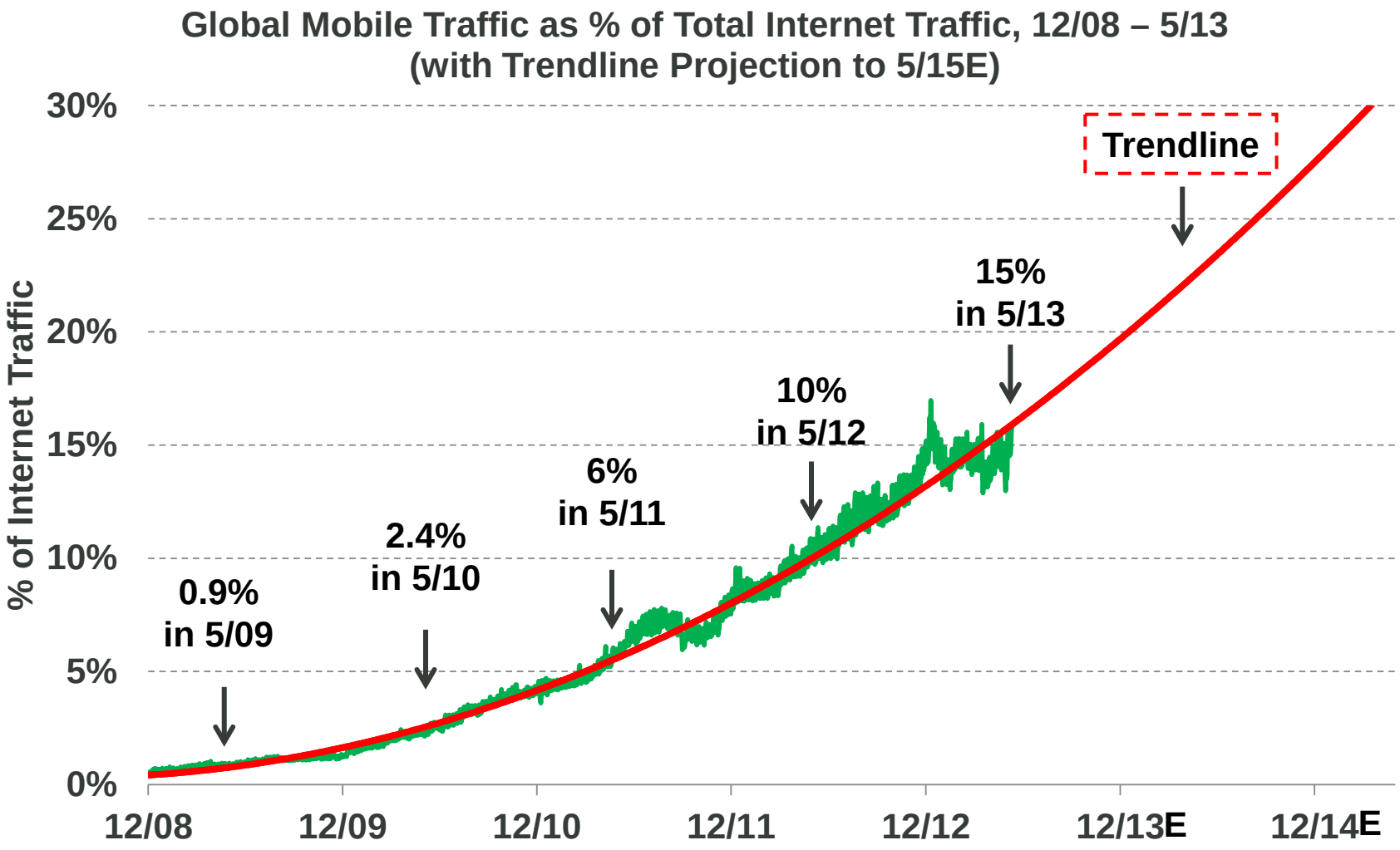
USA Smartphone User Relative Sentiment Index (10 = Strongest, 0 = Weakest), 3/13
When Asked How Social and Communication Activities on Smartphones Made You Feel



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Source: IDC, 3/13. Facebook-sponsored research asked smartphone owners how an array of social and communication activities on their phones made them feel. Most owners use ~7.4 social and communications apps on their phones. Responses are indexed above.

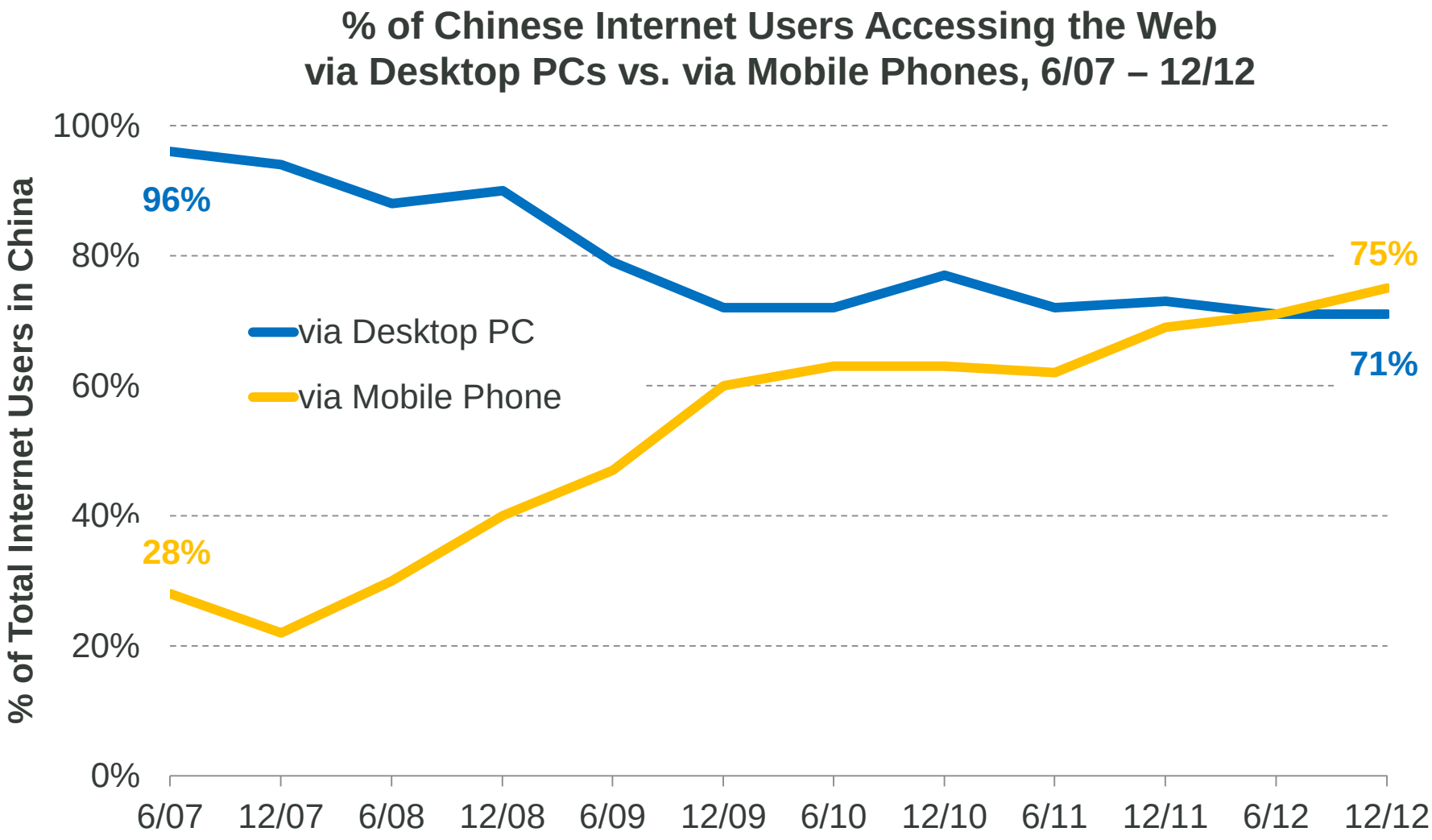
Mobile Traffic as % of Global Internet Traffic =
Growing 1.5x per Year & Likely to Maintain Trajectory or Accelerate



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Source: StatCounter Global Stats, 5/13. Note that PC-based Internet data bolstered by streaming.

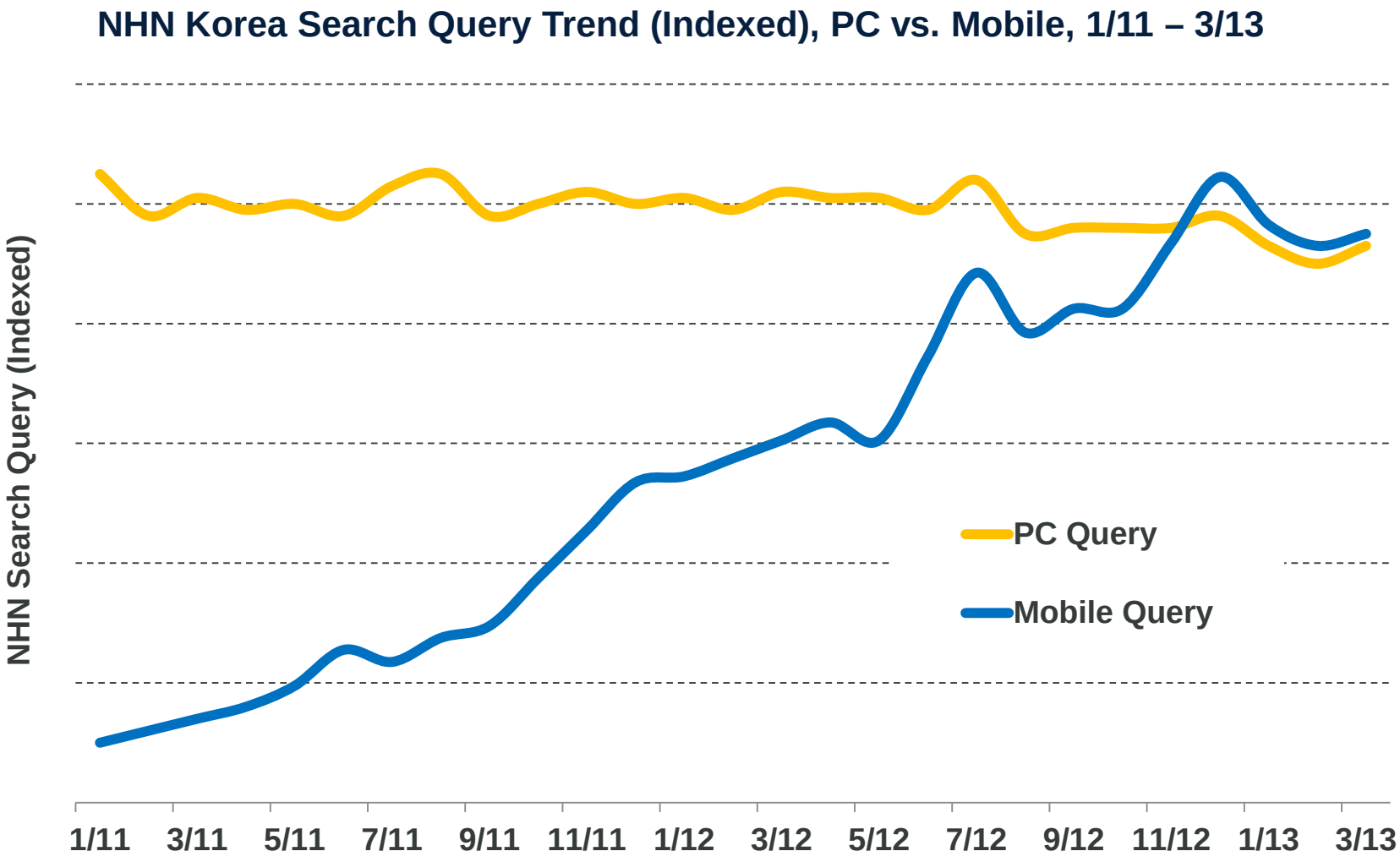
China –
Mobile Internet Access Surpassed PC, Q2:12



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Source: CNNIC, 1/13.

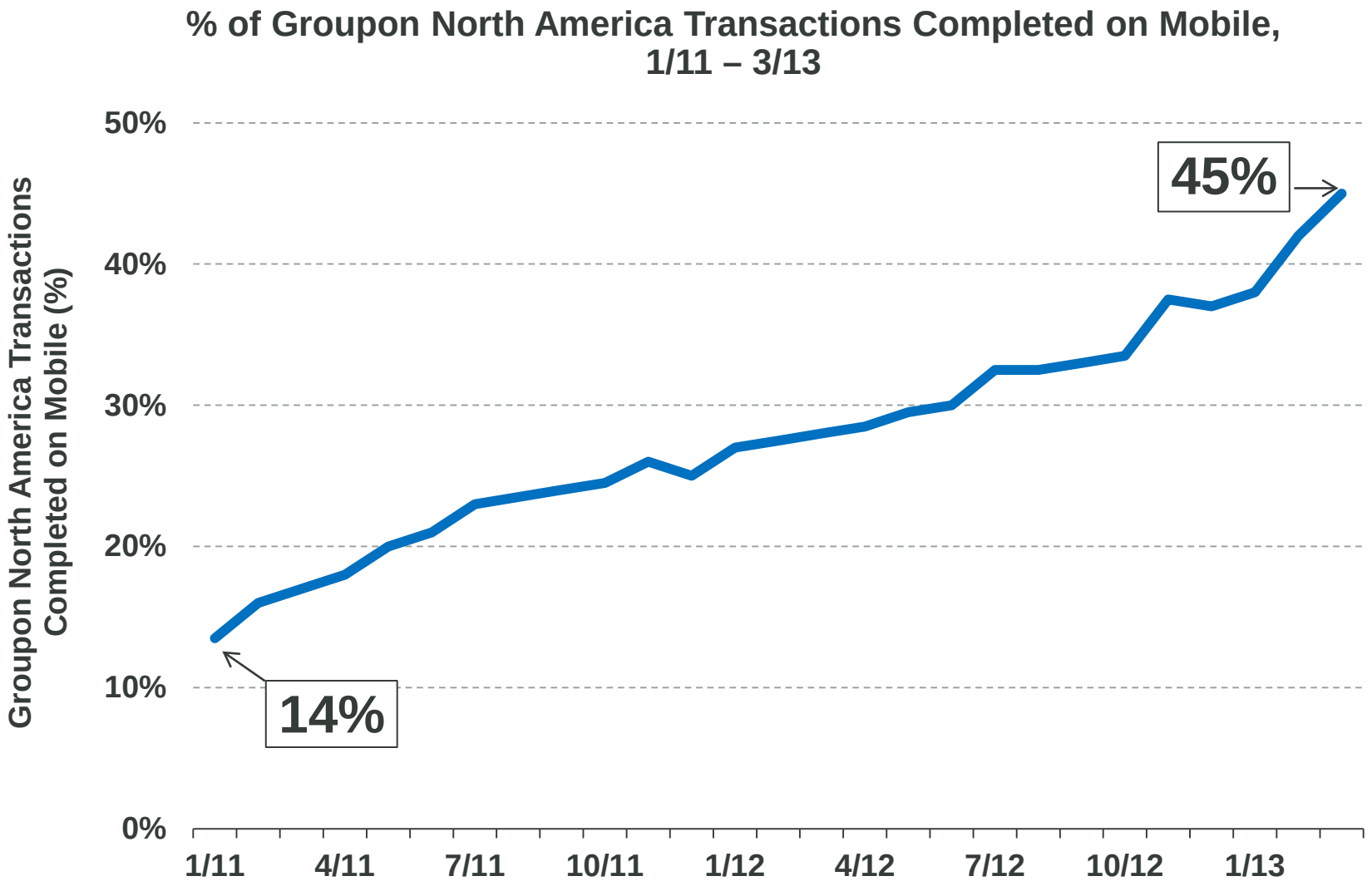
S. Korea –
Mobile Search Queries Surpassed PC, Q4:12



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Source: NHN Corporate Presentation, as of 5/13.

Groupon N. America –
45% of Transactions on Mobile, Up from <15% Two Years Ago



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Source: Groupon, as of 3/13.

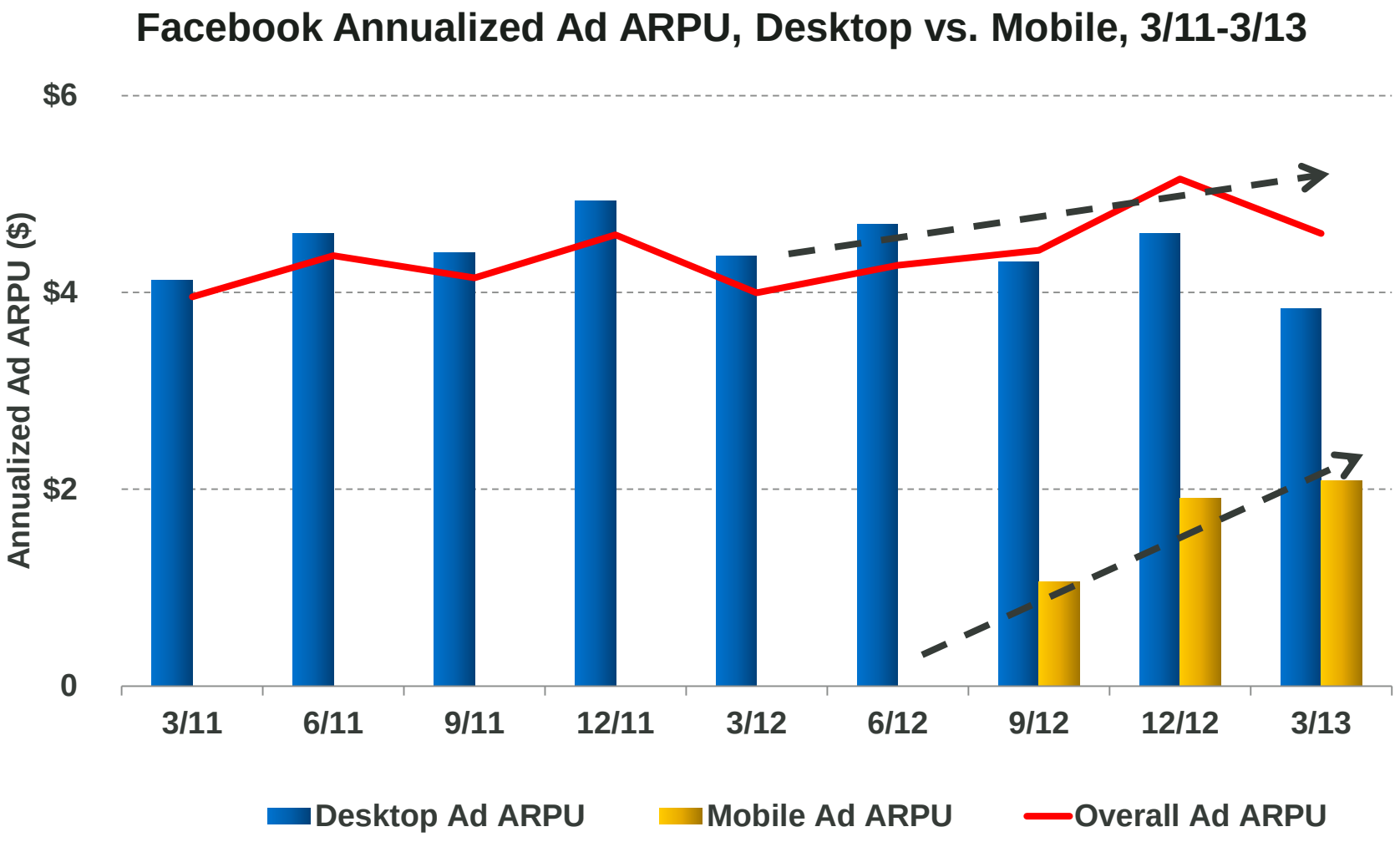
Facebook – Mobile Has Helped Drive Users & Revenue,
Q1 Growth = Revenue +43% Y/Y, Mobile Users +54% (to 68%), ARPU + 15%

	Q2:11	Q3:11	Q4:11	Q1:12	Q2:12	Q3:12	Q4:12	Q1:13
Ad Revenue ($MM)	**$776**	**$798**	**$943**	**$872**	**$992**	**$1,086**	**$1,329**	**$1,245**
Y/Y Growth	*83%*	*77%*	*44%*	*37%*	*28%*	*36%*	*41%*	*43%*
% from Mobile	*--*	*--*	*--*	*--*	*--*	*14%*	*23%*	*30%*
Mobile Active Users (MAUs) (MM)	**325**	**376**	**432**	**488**	**543**	**604**	**680**	**751**
Y/Y Growth	*110%*	*92%*	*76%*	*69%*	*67%*	*61%*	*57%*	*54%*
% of Total MAUs	*44%*	*47%*	*51%*	*54%*	*57%*	*60%*	*64%*	*68%*
Annualized Ad ARPU ($)	**$4.37**	**$4.15**	**$4.59**	**$4.00**	**$4.28**	**$4.43**	**$5.15**	**$4.60**
Y/Y Growth	*18%*	*19%*	*1%*	*1%*	*(2%)*	*7%*	*12%*	*15%*
Q/Q Growth	*11%*	*(5%)*	*11%*	*(13%)*	*7%*	*4%*	*16%*	*(11%)*

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Source: Facebook.

Facebook =
Rising Mobile ARPU Has Offset Declining Desktop ARPU, So Far



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Source: Facebook.

COMPUTING –
YET ANOTHER PLATFORM CHANGE…

We Just Began to Figure Out Smartphones…

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Smartphone Subscriber Growth = Remains Rapid
1.5B Subscribers, 31% Growth, 21% Penetration in 2013E

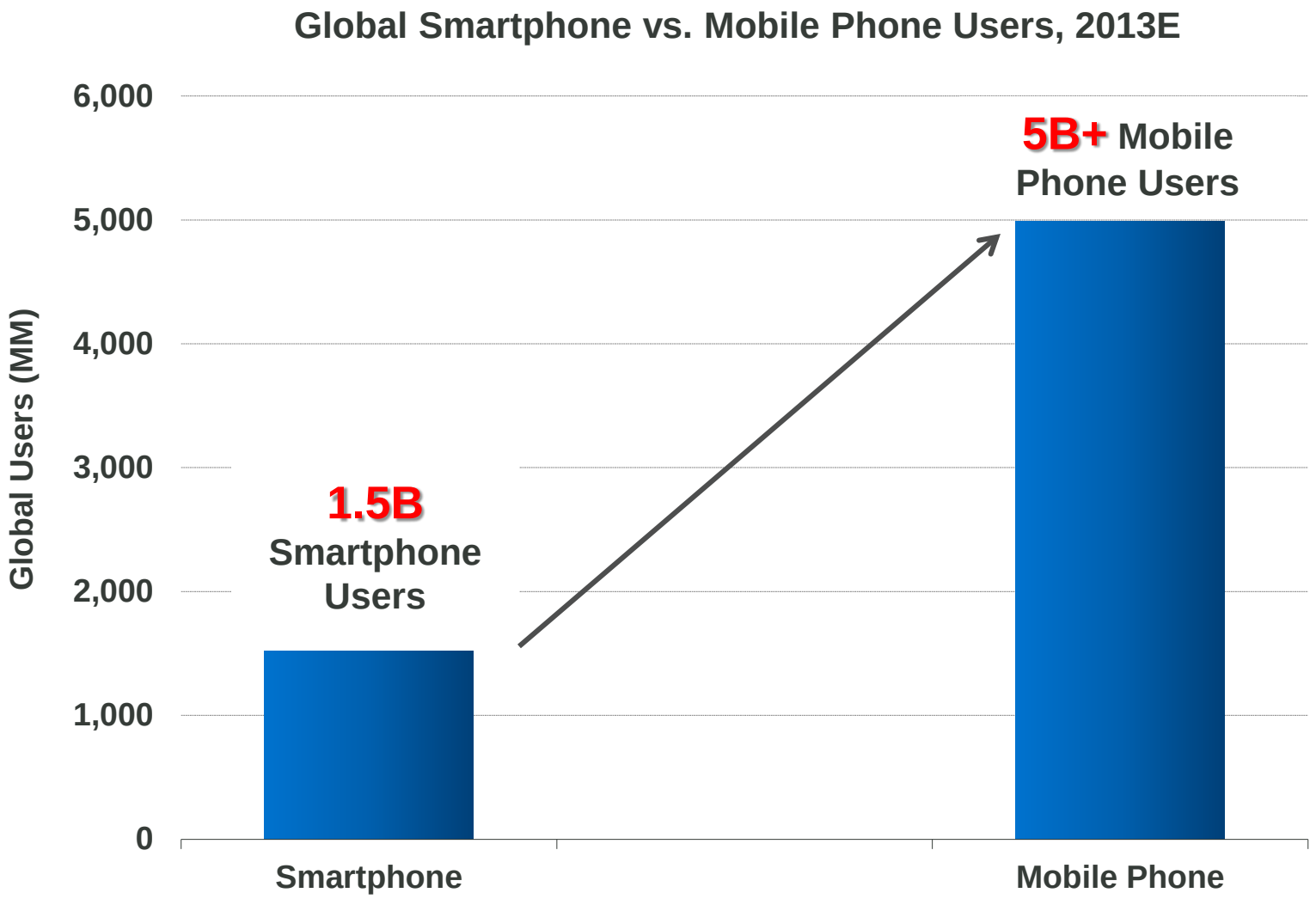
Rank	Country	2013E Smartphone Subs (MM)	Smartphone as % of Total Subs	Smartphone Sub Y/Y Growth
1	China	354	29%	31%
2	USA	219	58	28
3	Japan*	94	76	15
4	Brazil	70	23	28
5	India	67	6	52
6	UK	43	53	22
7	Korea	38	67	18
8	Indonesia	36	11	34
9	France	33	46	27
10	Germany	32	29	29
11	Russia	30	12	38
12	Mexico	21	19	43
13	Saudi Arabia	21	38	36
14	Italy	21	23	25
15	Australia	20	60	27
16	Spain	20	33%	14%
17	Philippines	19	18	34
18	Canada	19	63	21
19	Thailand	18	21	30
20	Turkey	17	24	30
21	Argentina	15	25	37
22	Malaysia	15	35	19
23	South Africa	14	20	26
24	Netherlands	12	58	27
25	Taiwan	12	37	60
26	Poland	11	20	25
27	Iran	10	10	40
28	Egypt	10	10	34
29	Sweden	9	60	16
30	Hong Kong	8	59	31

2013E Global Smartphone Stats: **Subscribers = 1,492MM** **Penetration = 21%** **Growth = 31%**

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Note: *Japan data per Morgan Stanley Research estimate. Source: Informa.

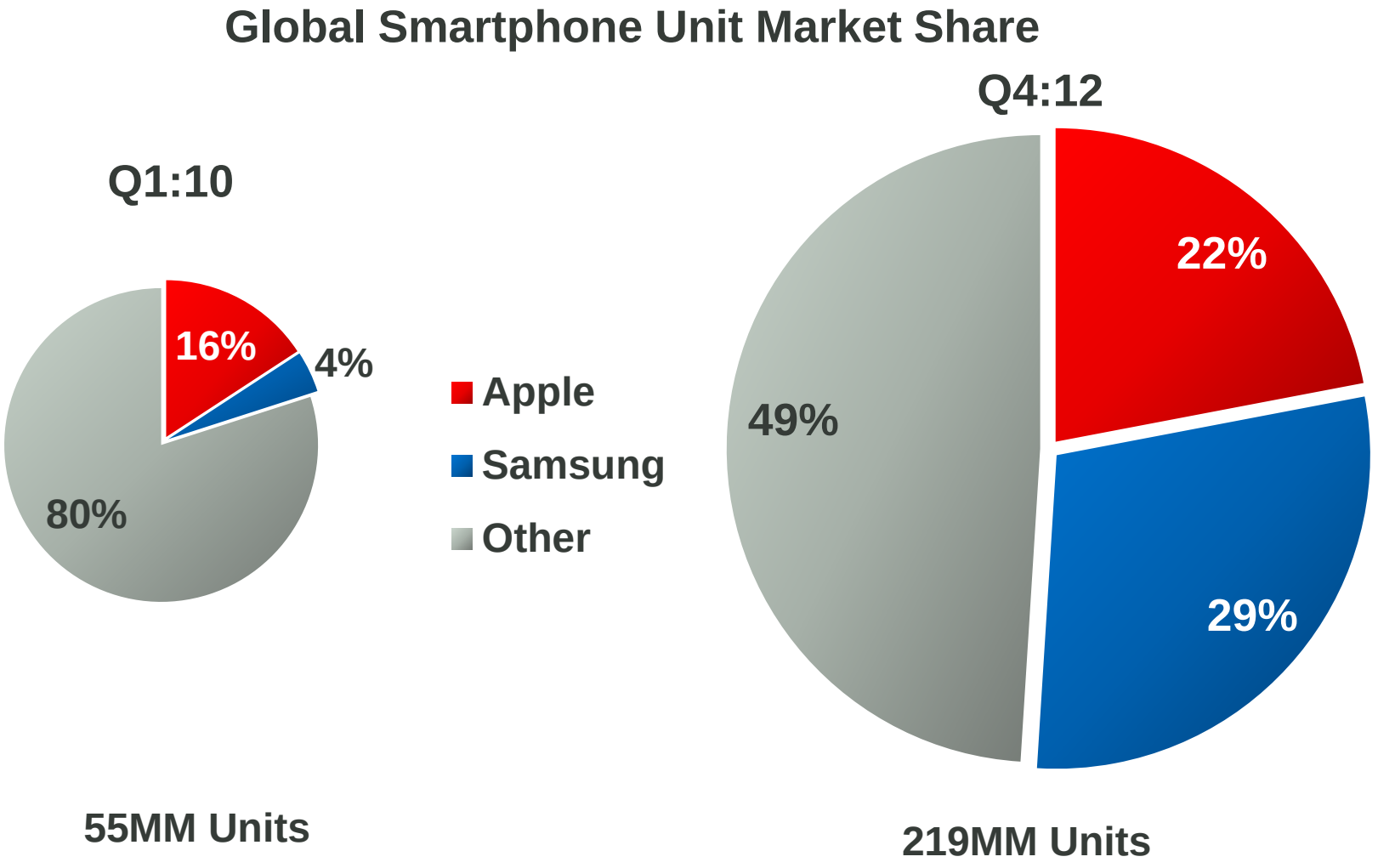
Smartphone Usage =
Still Early Stage With Tremendous (3-4x) Upside



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Source: Morgan Stanley Research estimates.
Note: One user may have multiple devices - actual number of actual smartphone + mobile phone devices in use (subscription numbers) may be higher than user numbers.

Apple Growing Rapidly (1.4x Share Gain)…
Samsung Up 7x Over ~2 Years



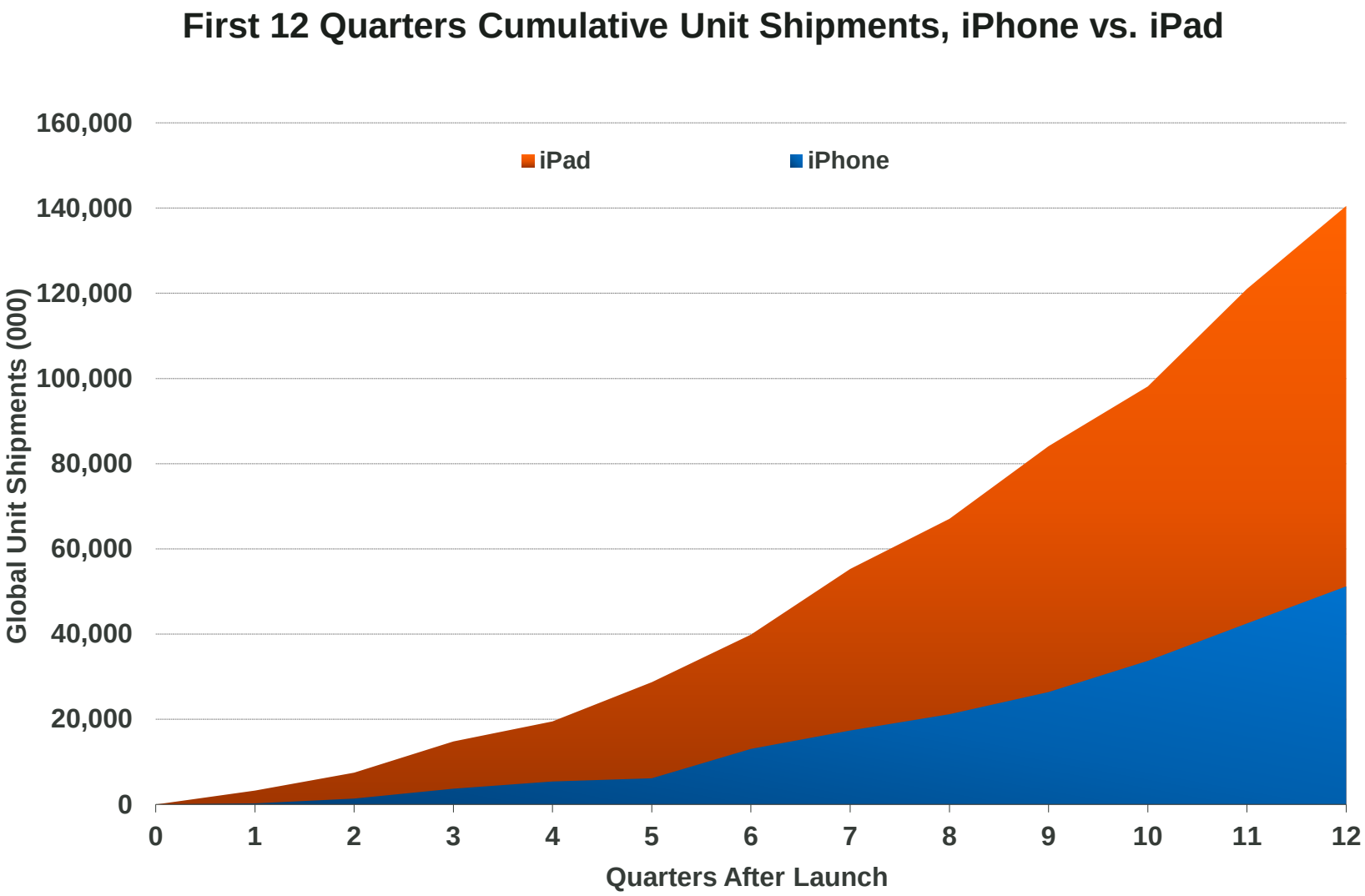
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Source: IDC, Morgan Stanley Research. Data as of 4/13.

…Then Along Came Tablets…

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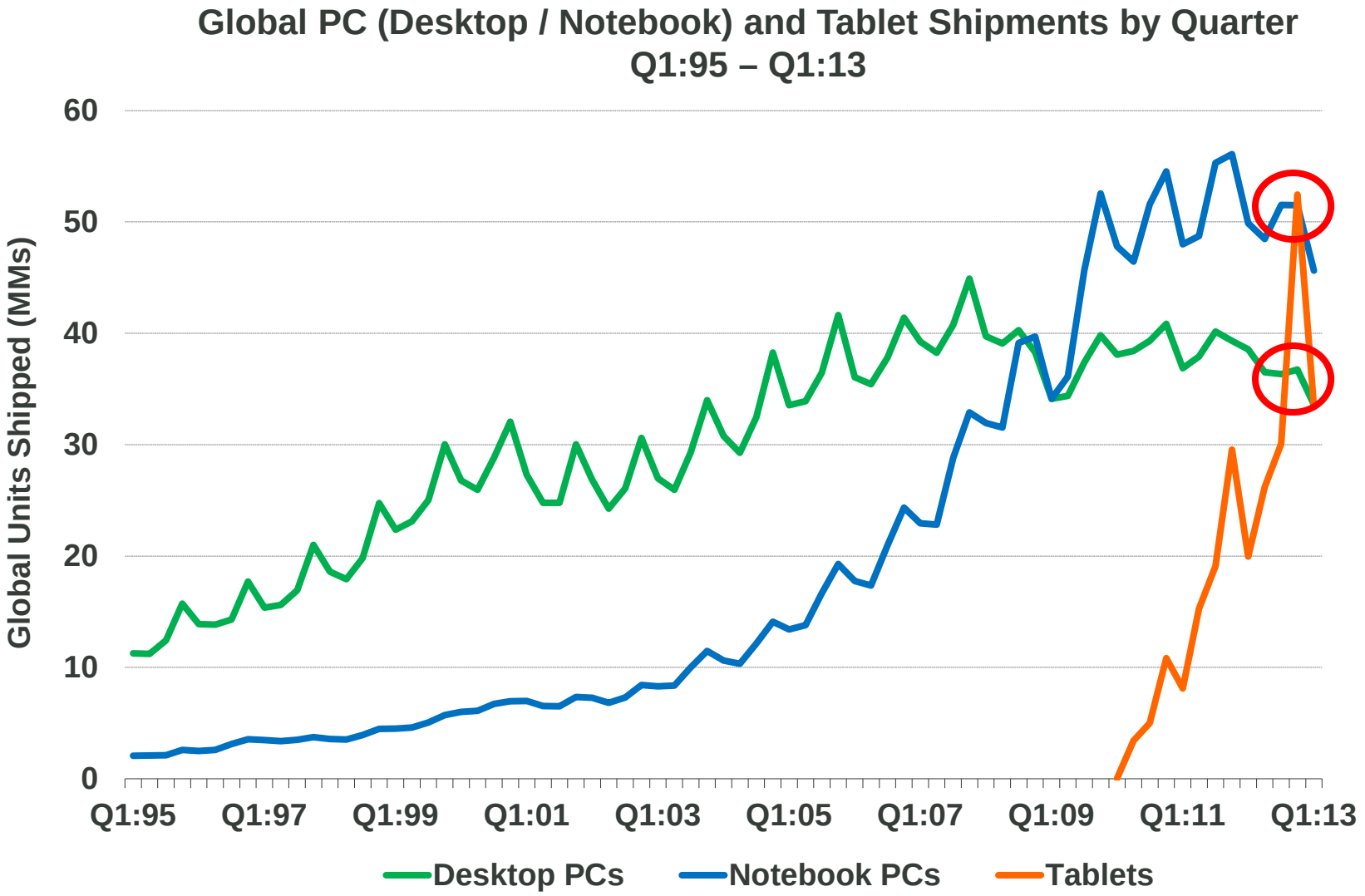
Tablet Growth =
More Rapid than Smartphones, iPad = ~3x iPhone Growth



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Source: Apple, as of CQ1:13 (12 quarters post iPad launch).
Launch Dates: iPhone (6/29/07), iPad (4/3/10).

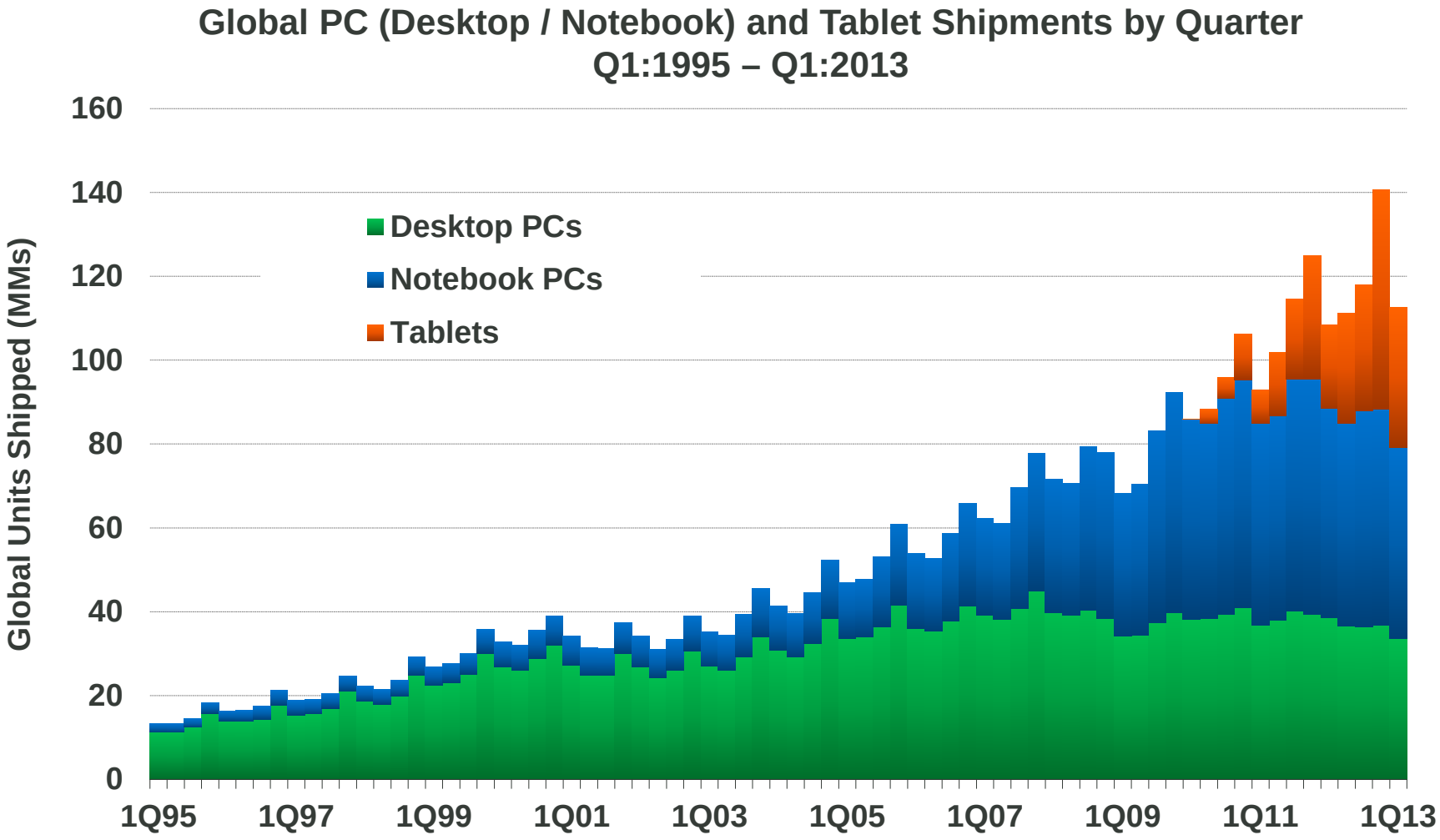
Tablet Shipments =
Surpassed Desktop PCs & Notebooks in Q4:12, < 3 Years from Intro



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Note: Notebook PCs include Netbooks.
Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Gartner. Data as of 4/13.

Demand for Large-Screen Computing Devices is Robust, But Mix Favors Tablets, Not Notebooks & Desktops



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Note: Notebook PCs include Netbooks.
Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Gartner. Data and Estimates as of 4/13.

Top Vendors Largely Same in Desktop & Notebook Cycles – Very Different in Tablet (& Smartphone) Cycles

Desktop PC
Market Share
2000

	% Share
Compaq	13%
Dell	11%
HP	8%
IBM	7%
NEC	4%
Others	57%

Notebook PC
Market Share
2010

	% Share
HP	19%
Acer	17%
Dell	12%
Lenovo	10%
ASUS	8%
Others	34%

Tablet
Market Share
2012

	% Share
Apple	51%
Samsung	13%
Amazon	8%
ASUS	5%
Lenovo	1%
Others	20%

Smartphone
Market Share
2012

	% Share
Samsung	30%
Apple	19%
Sony	5%
ZTE	5%
BlackBerry	5%
Others	37%

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Note: Notebook PCs include Netbooks.
Source: Morgan Stanley Research. Gartner. Data as of 4/13.

An Unusual Pattern…

In Two Computing Cycles…

1) Smartphones

2) Tablets

…Entering a Third Cycle…

3) Wearables / Drivables / Flyables / Scannables

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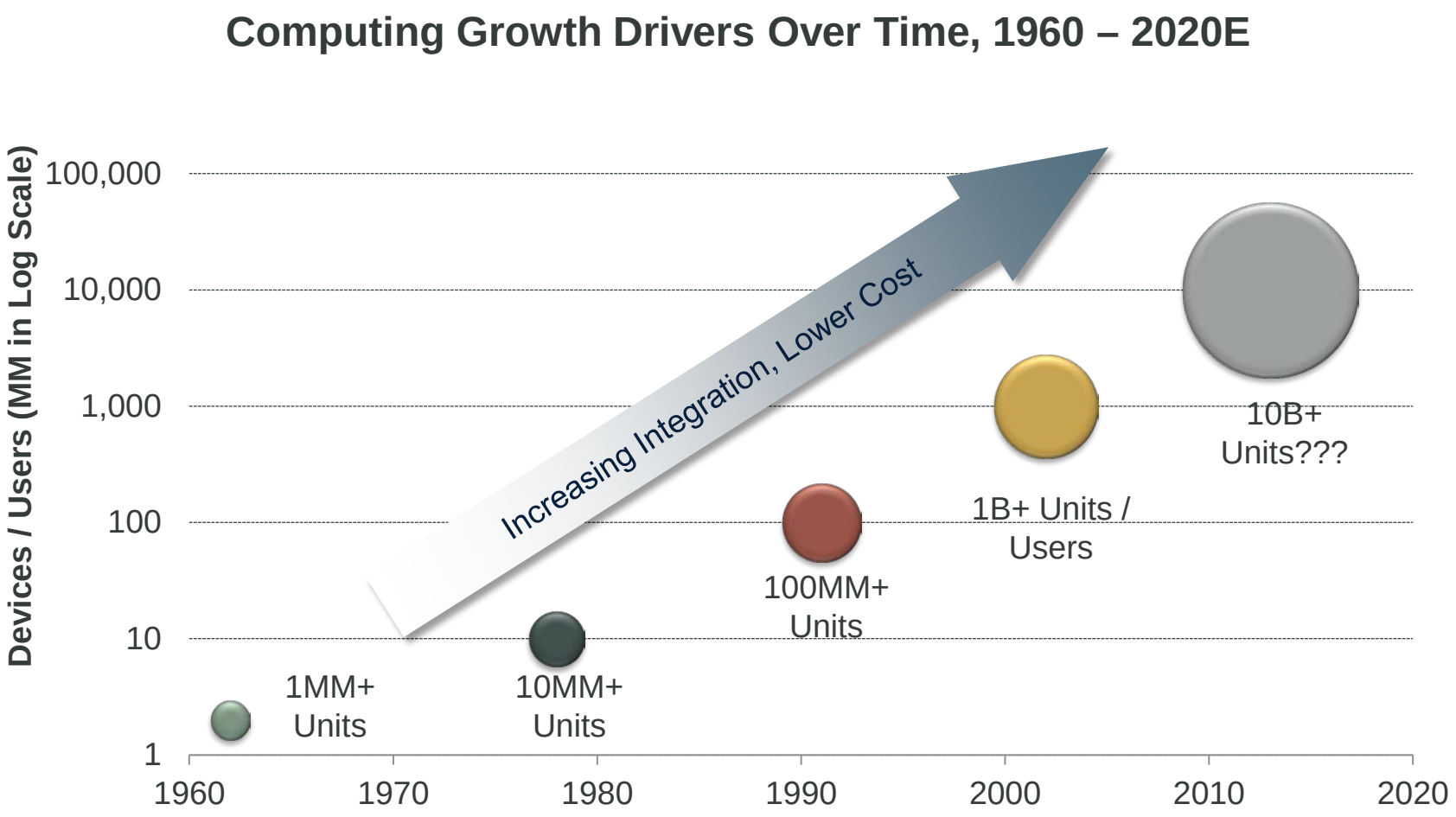
Technology Cycles – Still Early Cycle on Smartphones + Tablets, Now Wearables Coming on Strong, Faster than Typical 10-Year Cycle

Technology Cycles Have Tended to Last Ten Years

Mainframe Computing 1960s	*Mini* Computing 1970s	*Personal* Computing 1980s	*Desktop Internet* Computing 1990s	*Mobile Internet* Computing 2000s	*Wearable / Everywhere* Computing 2014+
					
					
					
					Others?

Image Source: Computersciencelab.com, Wikipedia, IBM, Apple, Google, NTT docomo, Google, Jawbone, Pebble.

New Major Technology Cycles = Often Support 10x More Users & Devices, Driven by Lower Price + Improved Functionality

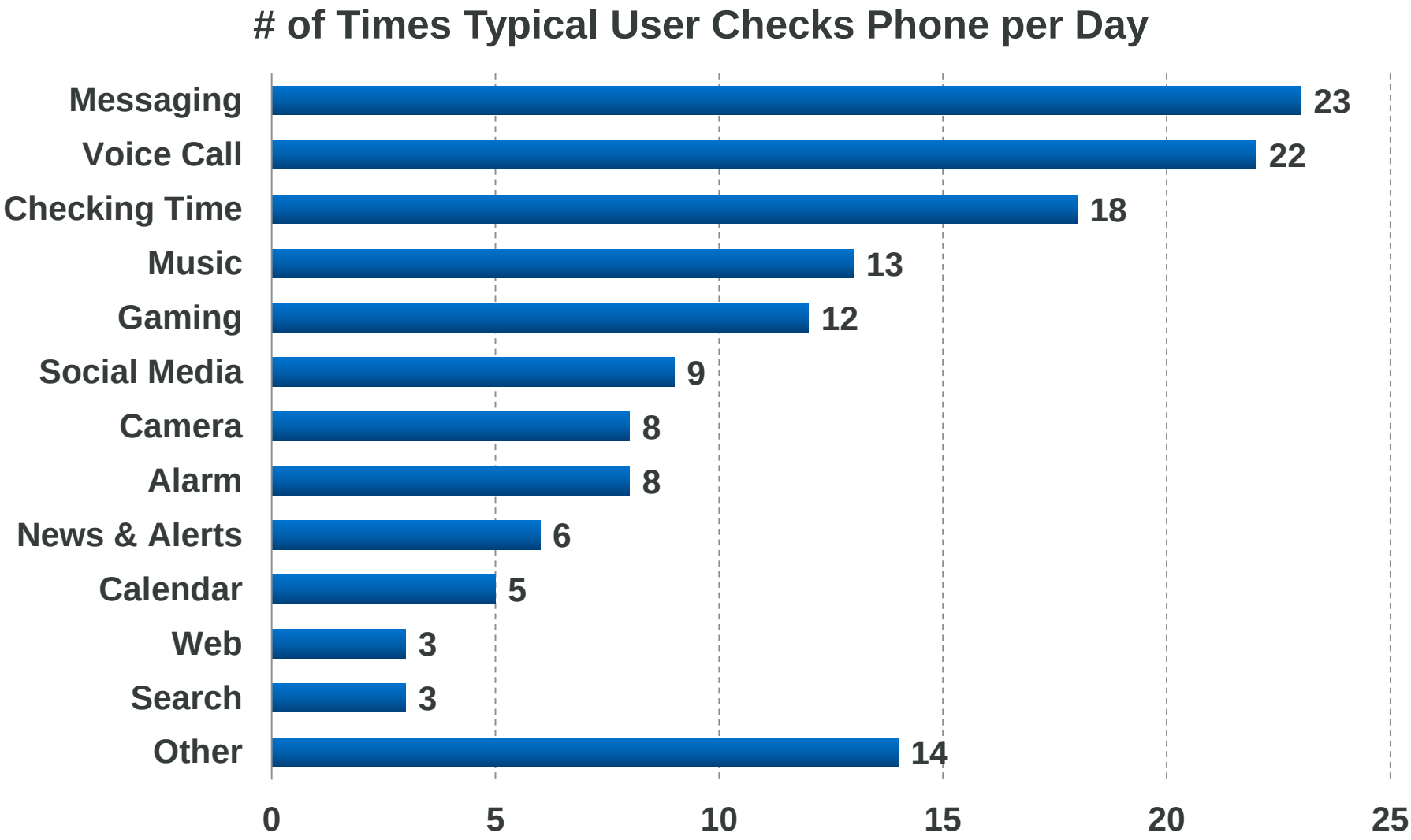


Note: PC installed base reached 100MM in 1993, cellphone / Internet users reached 1B in 2002 / 2005 respectively;
Source: ITU, Morgan Stanley Research.

…Wearables (with Sensors)…

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Smartphone Users Reach to Phone ~150x a Day… Could be Hands-Free with Wearables



KPCB

Other includes voicemail, charging, and miscellaneous activities. Source: TomiAhonen Almanac 2013.

Sensor-Enabled Wearable Attributes

Hands-Free
- Voice / gesture control

Always-On
- Low power consumption
- Instant wake
- Background working / sensing

Environment-Aware
- GPS
- Accelerometer
- Compass
- Camera
- Microphone
- Other Sensors

Connected
- Wi-Fi
- 3G / 4G
- Bluetooth
- NFC

Attention-Getting
- Less distracting when receiving alerts / reminders / messages

Development Platform
- 3rd party apps
- API partners
- Accessories







KPCB

Source: MIT, KPCB.

Some People Laugh at Wearables…

And ‘SNL’ Does Rule… ;)



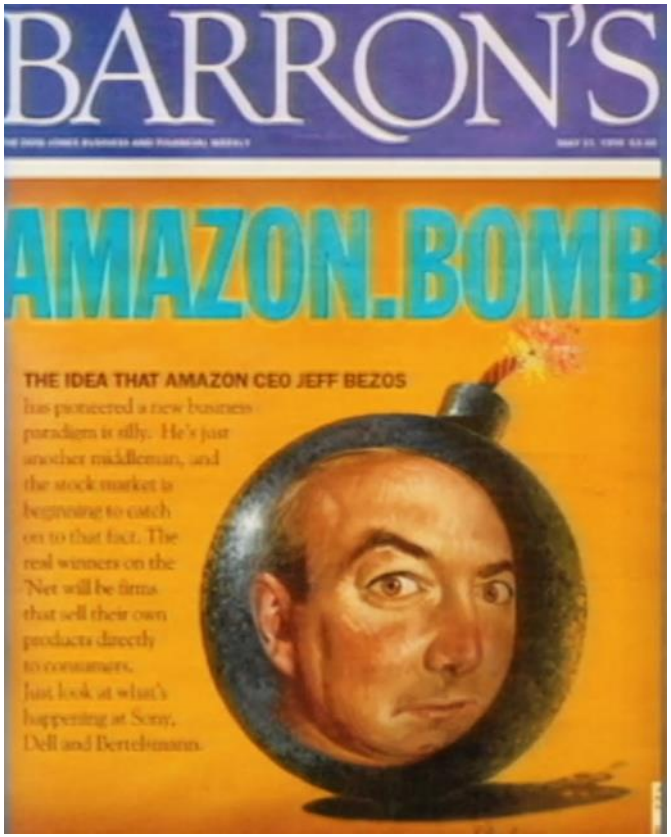
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Source: Saturday Night Live, 5/13.

…Some People Laughed at PC & Internet

There is no reason anyone would want a computer in their home.

- Ken Olsen
(Founder)
Digital Equipment
1977



May 1999

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…Drivables…

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A Car or a Computer on Four Wheels?

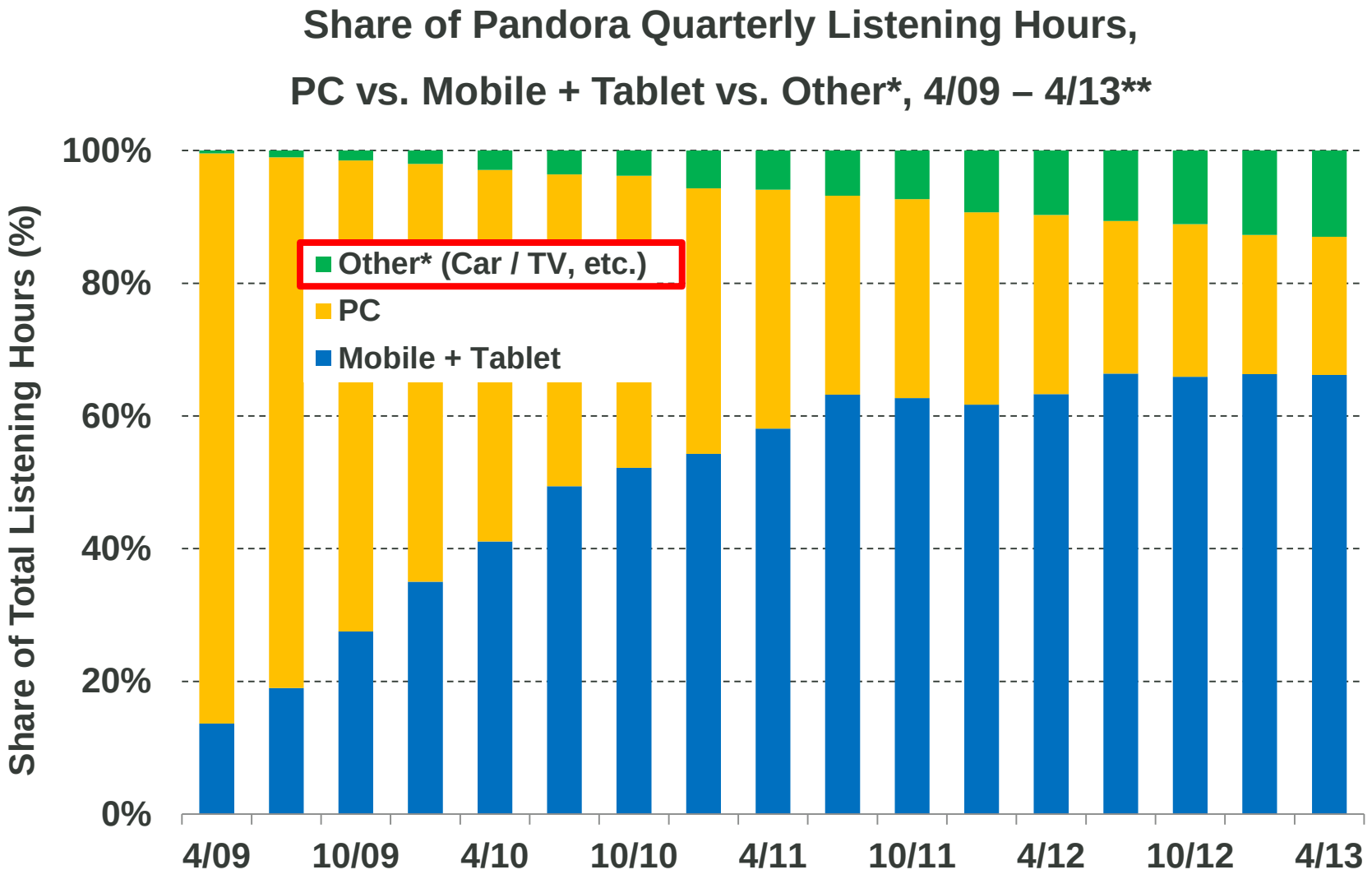






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Pandora Usage – Car / TV / Appliance Usage (~13% Now) to Likely Surpass PC (21%) Usage in 2 Years



Source: Pandora. Note that *listening share data for other non-mobile / non-PC devices (car / TV, etc) are KPCB estimates. **Pandora fiscal year ends Jan 31, so FQ4:13 ended Jan 31, 2013.

…Flyables…

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It’s a Bird, It’s a Plane, It’s a Mini-Drone…

Use Cases of Low-Cost Drones

Agriculture

GPS-Enabled Photos Help Pinpoint Potential Crop Damage Early On



Sports / Entertainment

Unique Angle of View Provides Insights for Training + Broadcast Audience



Public Safety / Disaster Relief*

Providing Aerial Video Coverage / First-Aid / Other Supplies in Challenging Conditions



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Source: Left image – Shutterstock; Middle image – Dronereport.net; *Right image – Drone carrying cameras + other sensors being deployed during search & rescue mission of 7.0-magnitude earthquake in Lushan, China (4/13).

Scannables –
Codes / Tags + Cameras / Sensors

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QR Codes =
Scan & Be Scanned to Get Stuff…

SCAN
Quick Scan w/ Smartphone For Info on Nutrition / Product / Price…



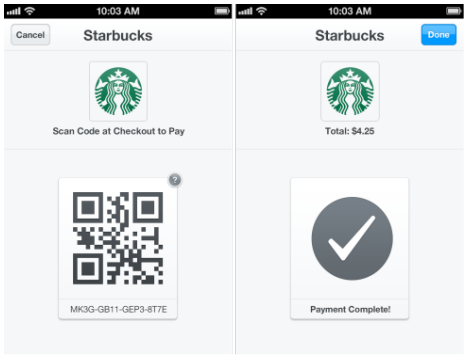


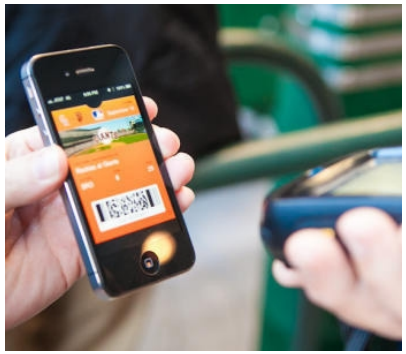




BE SCANNED
Smartphone-Generated Codes For Boarding Pass / Ticket / Payment / Rewards…



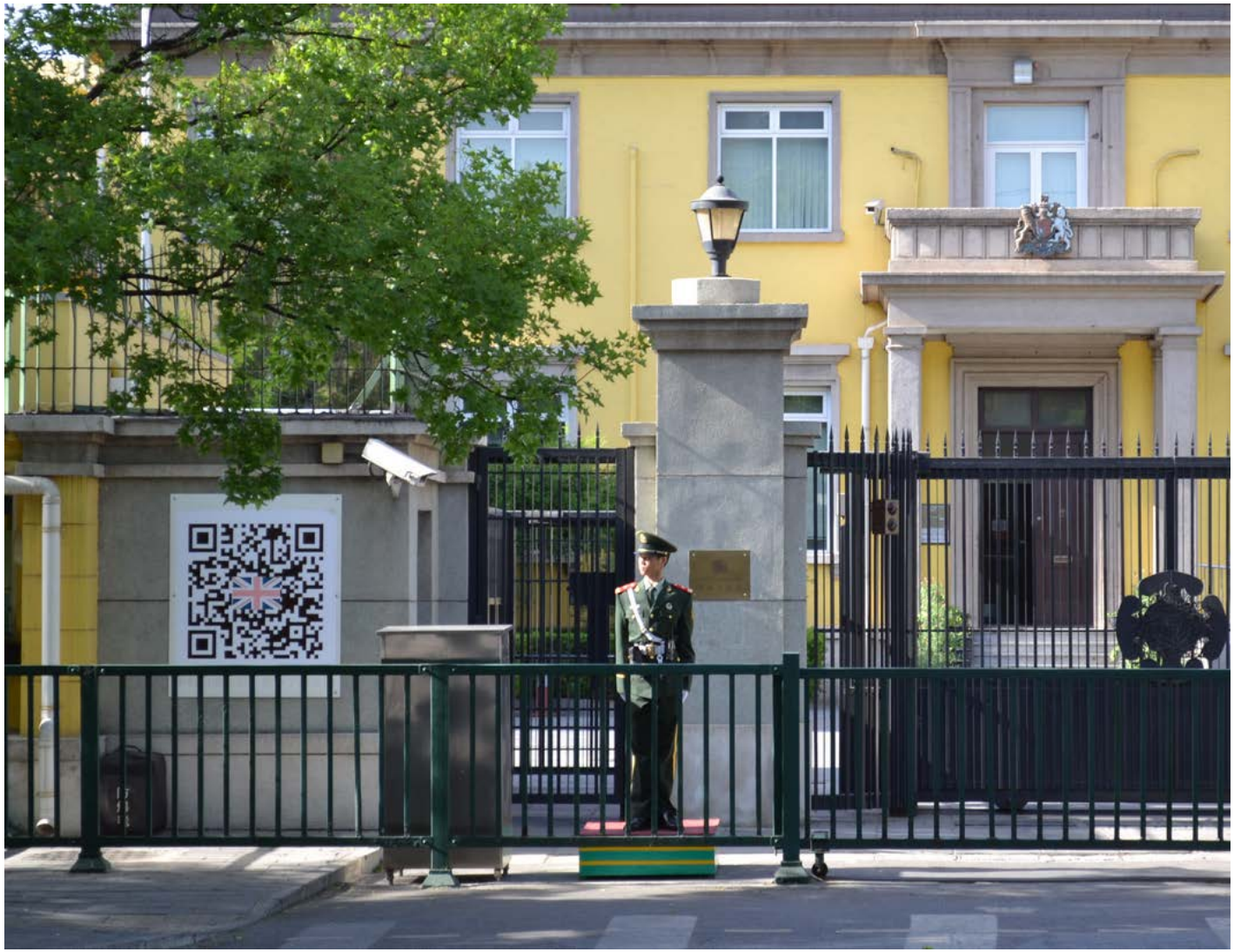






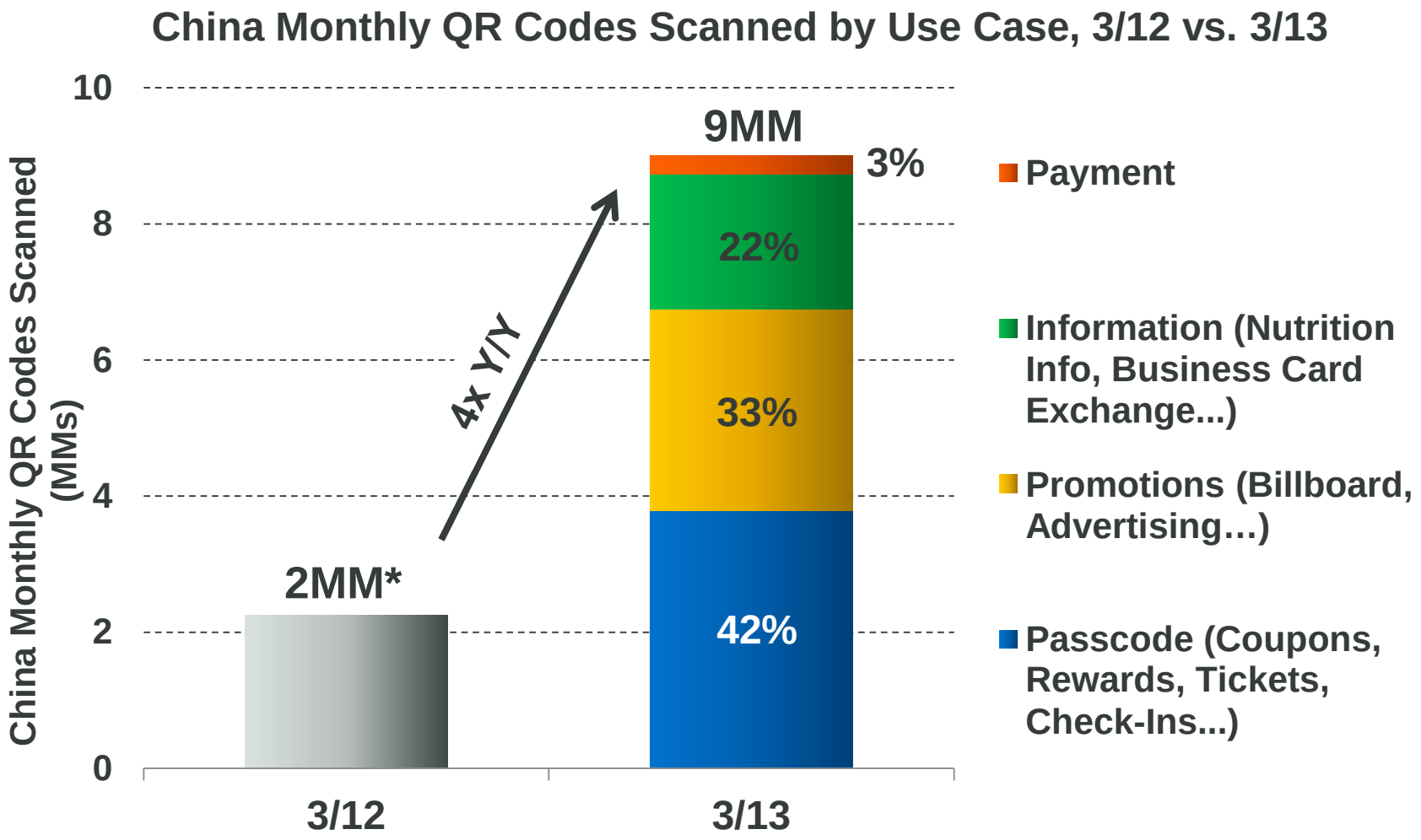
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China - Follow UK Embassy Weibo Account by Scanning QR Code Outside Embassy in Beijing



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QR Code Scanning = Up 4x Y/Y in China, Offline Businesses Driving Online Connections



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Note: * March 2012 use case breakdown not available. Source: Imageco, China QR Code Market Study, 2013. We believe data are understated.

Tencent WeChat (400MM+ Users, +4X Y/Y, China) – Mobile Communication + Local Commerce via QR Codes



Consumers…

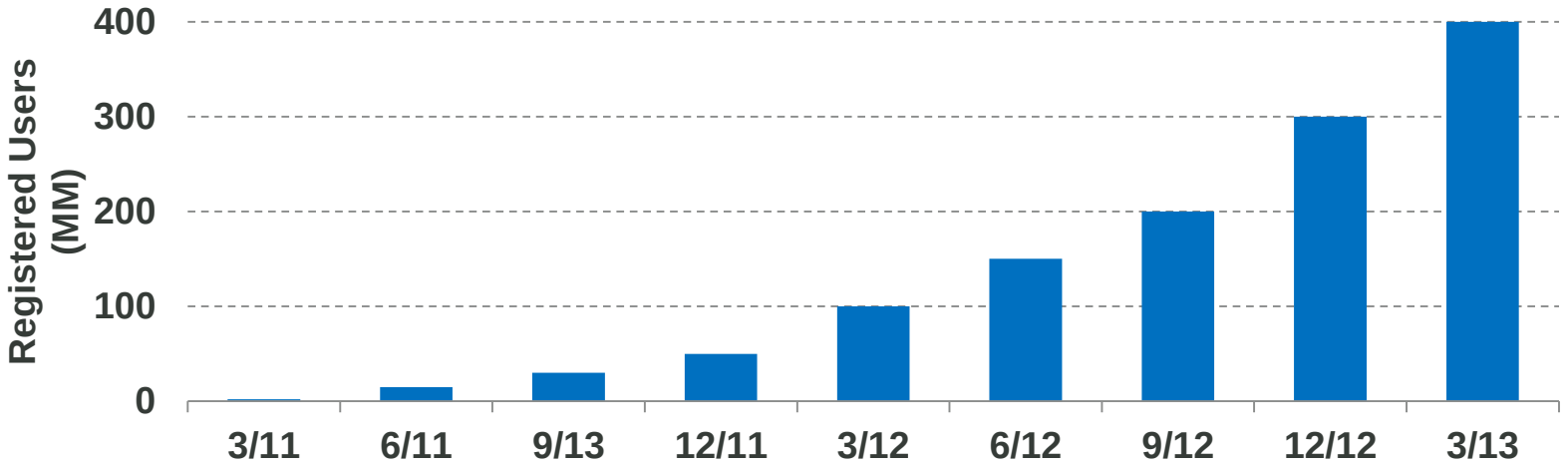
In addition to connecting w/ friends via voice / text / pictures, WeChat users can scan QR codes of merchants to stay connected and enroll in rewards programs + receive coupons.



Businesses…

Use QR code + communication functions to manage customer acquisition and relationships. SMBs can send offers / take online orders, provide customer support via WeChat.

Tencent WeChat Registered Users, 3/11-3/13

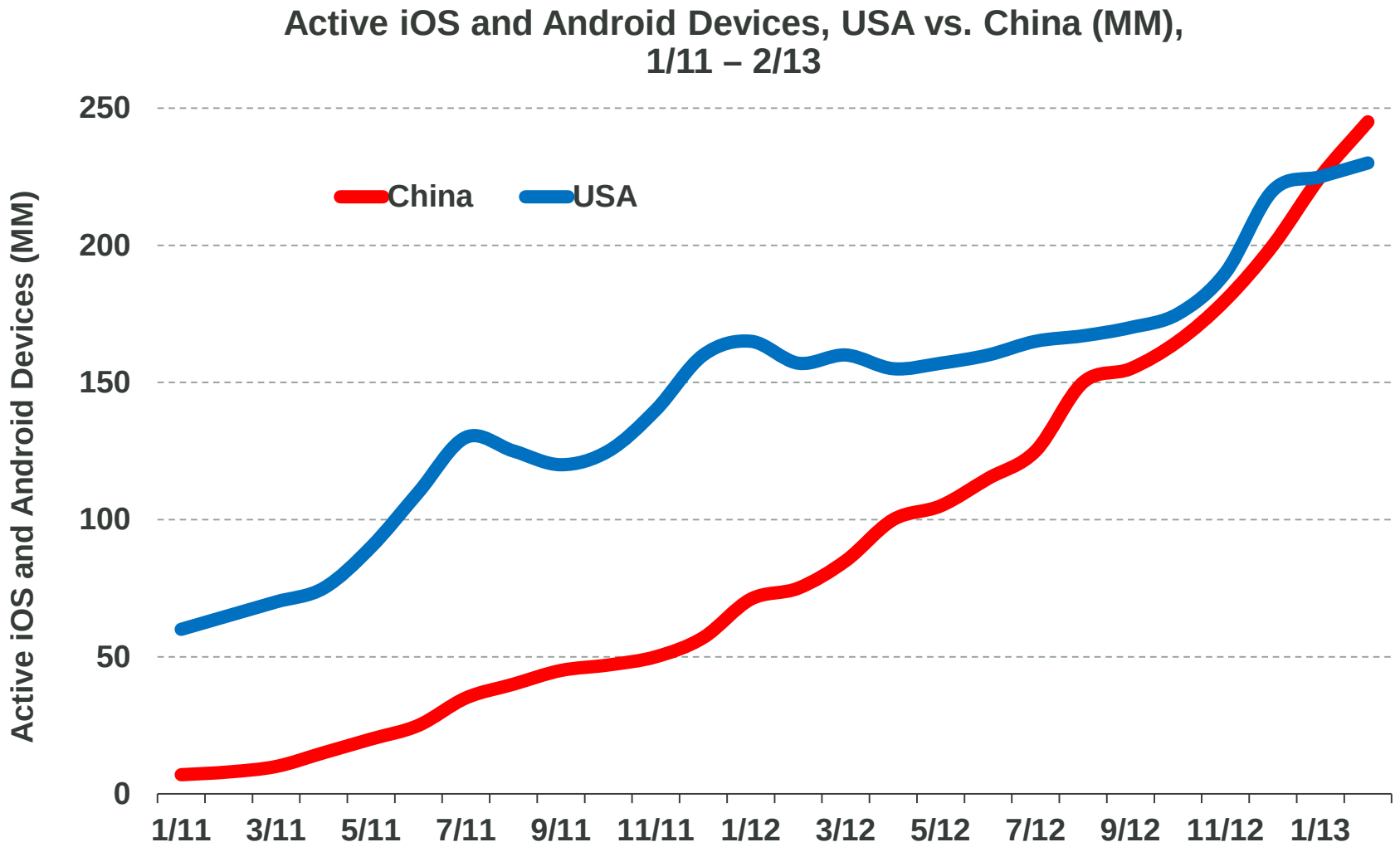


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Source: User growth per Tencent and Morgan Stanley estimates.

LOTS TO LEARN FROM CHINA – VOLUME + INNOVATION

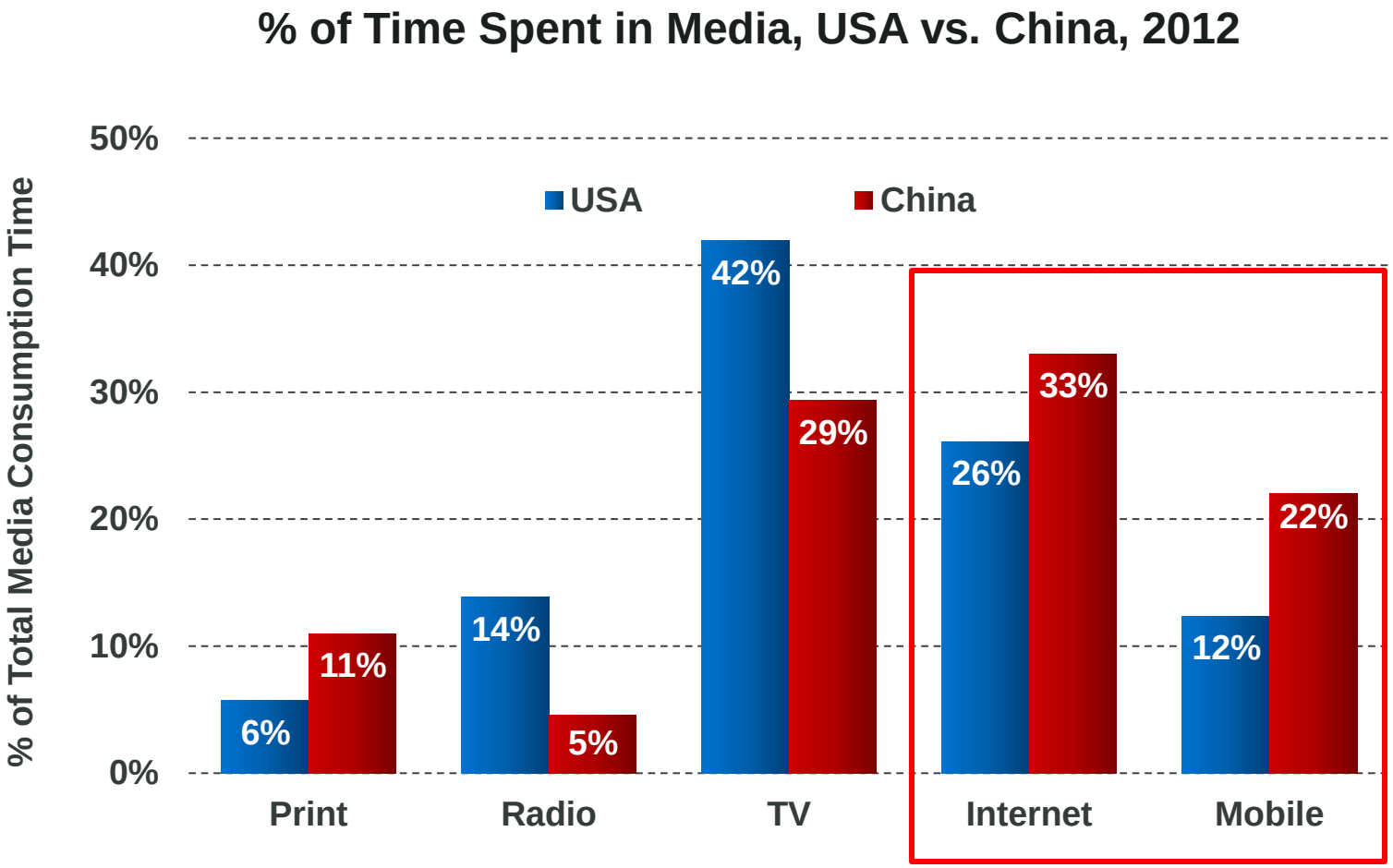
China –
iOS + Android Users Surpassed USA, Q1:13



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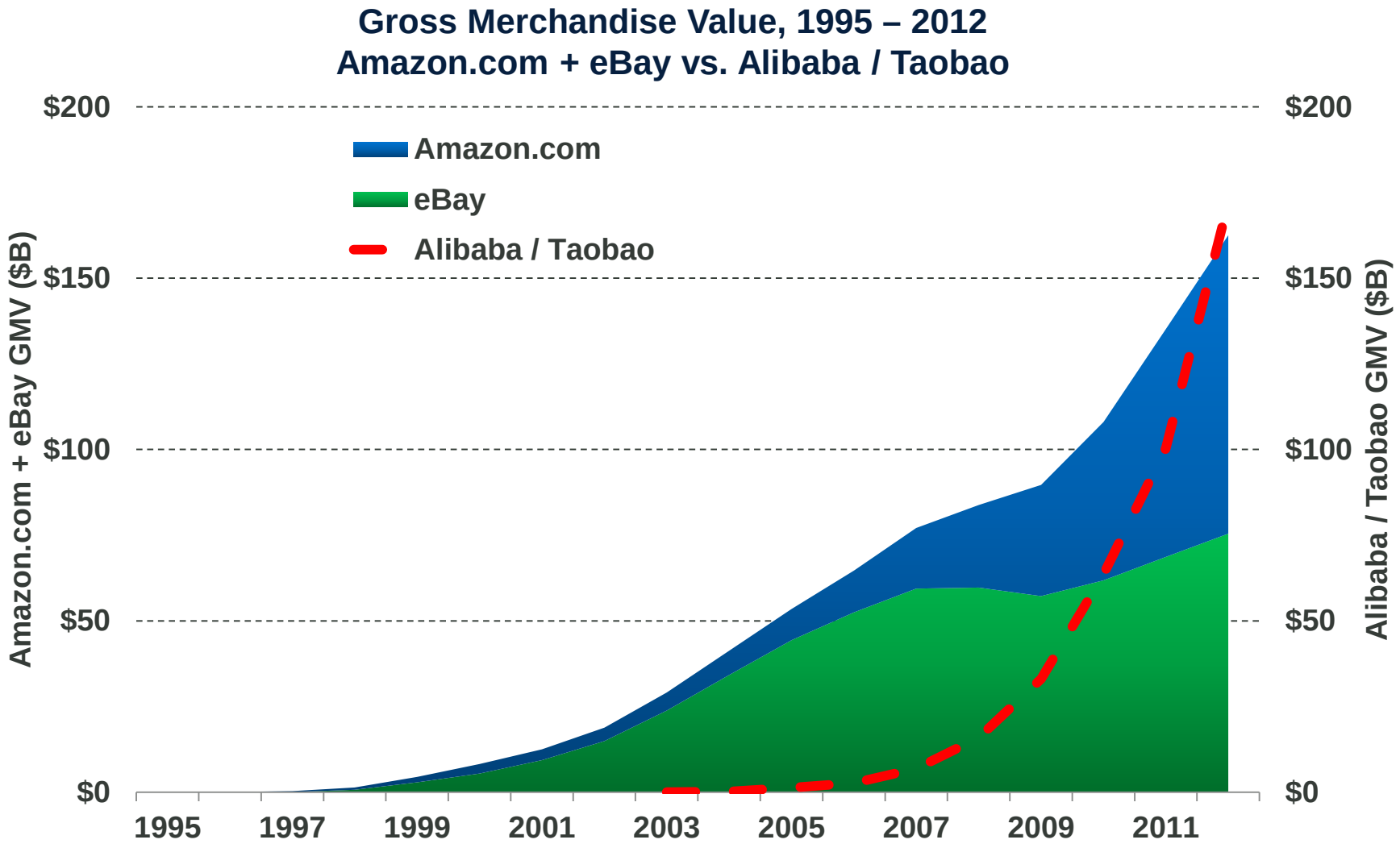
Source: Flurry Analytics.

China Leads USA in Mobile + Internet Time Spent vs. TV = China @ 55% vs. 38% in USA



Source: USA media time spent share data based on eMarketer as of 12/12, China media time spent data per Miaozhen Systems' (a leading 3rd party ad tech platform) survey of 35,750 samples as of 12/12.

Alibaba – Gross Merchandise Volume Surpassed Amazon.com + eBay, Q4:12



KPCB

Source: Company data.

JD.com (360buy) – Same Day Delivery with Real-Time Item Tracking on Map / Mobile…Often on Bicycle

Free* Same-Day Delivery in 25+ Cities in China / Customer Can Track Package Location on Map / Mobile Devices and Contact Delivery Person in Real Time





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Note: *For orders > $8.

Taxi Apps* – China – Push to Talk to Driver / Bid Extra to Increase Chance of Getting Car on Your Terms

Push to Talk
Say current location and where you're going. Your voice message will be delivered instantly to all nearby available taxis



Bid to Win
Increase your chance of hailing a cab during peak hours by offering extras tips up front (in addition to regular fare)



Real Time Tracking
View your taxi's location in real-time, push to talk to the driver directly to coordinate pick-up



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*Source: Left image - Yao Yao Zhao Che; Center image – Di Di Da Che; Right image – Kuai Di Da Che.

Sina Weibo – 530MM+ Users (+2x Y/Y) Help Push For Social Change…$100MM Revenue Run Rate, Up From $0 Y/Y

Notable Events / Movements Helped by Sina Weibo

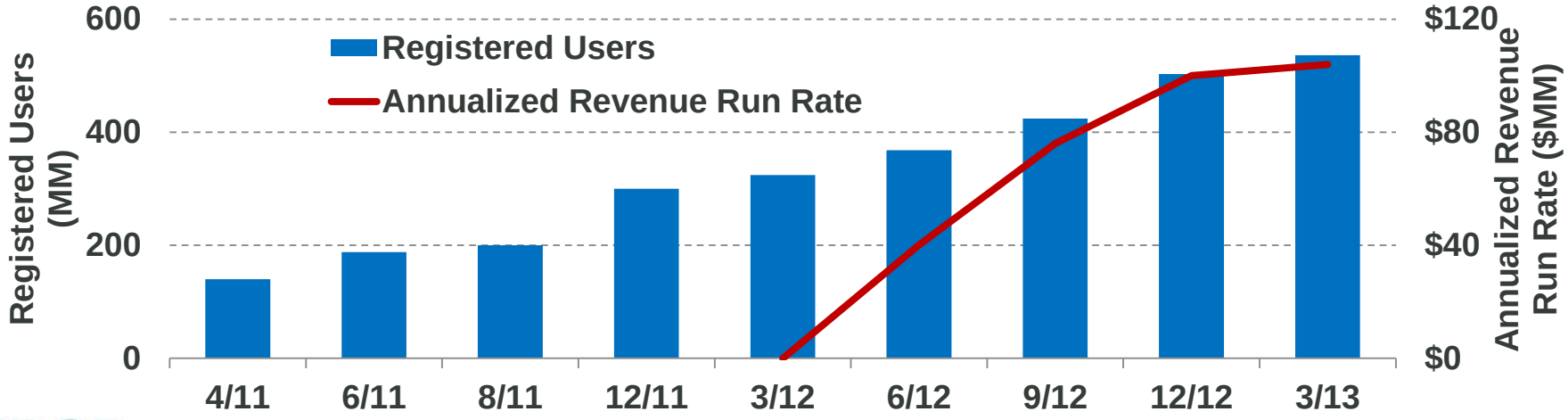


Beijing Air Quality Campaign – Sina Weibo users' UGC photos / polls / reposts / suggestions helped drive government adoption of daily monitoring of air quality



Real-Time Self-Organized Emergency Relief – Through Weibo, volunteers coordinated to pick up stranded travelers at Beijing airport during torrential downpour in 7/12

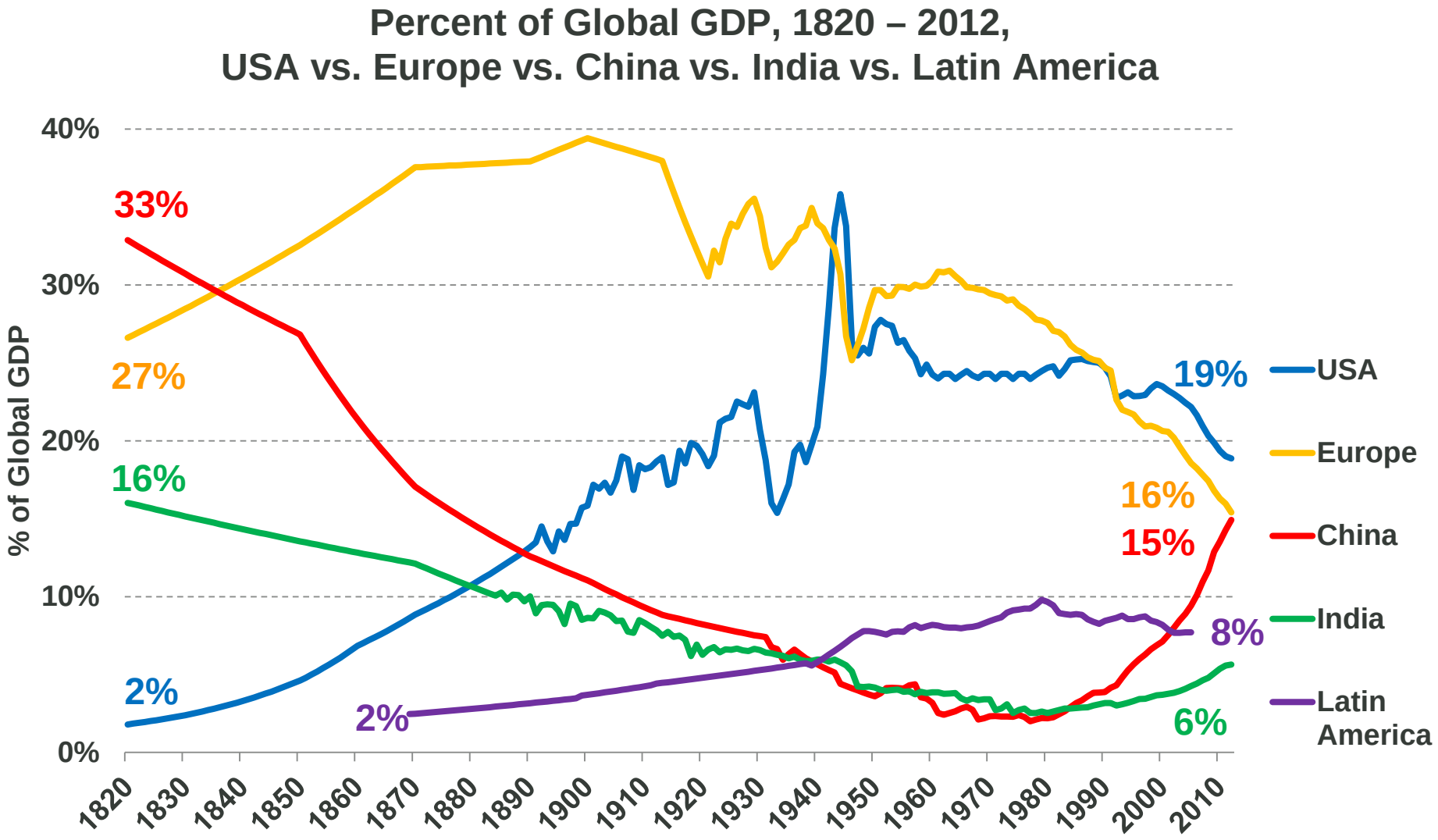
Sina Weibo Registered Users & Annualized Revenue Run Rate, 4/11-3/13



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User / revenue source: Sina, Morgan Stanley Research.

GDP =
China Share Gains vs. Europe & USA are Epic



Source: Angus Maddison, University of Groningen, OECD, data post 1980 based on IMF data (GDP adjusted for purchasing power parity).

MOST ENABLED ENTREPRENEURS EVER?

ZERO -> 1 MILLION USERS
IN RECORD TIME(S)

Is This Generation Different?

Selective Formative Events of Past 20 Years

September, 2001 USA Terrorist Attacks – Destabilized sense of security

Rise of China as Global Super Power – Altered global competition

Global Financial Crisis, 2008+ – Destabilized financial security

High Unemployment Levels – Destabilized career optimism

Potential Fiscal Debt Challenges – Rise in need to depend on selves

Rise of Cheap / Available Computing – 24x7 global access to loads of stuff including shared goods

Rise of New 'Geek' Entrepreneur Heroes – Jobs + Sergey / Larry + Zuck…

Rise in Social Connectivity – Ability to find / create / share / provide + get feedback

Rise in Value of Social / Virtual vs. Financial + Physical Currency

Turning Passion Into Businesses…On an Epic Internet Palette

Sports
David Finocchio / BleacherReport



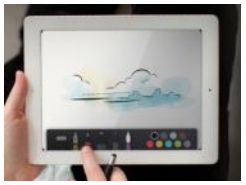

Books
Otis Chandler / Goodreads



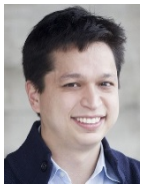

Music
Daniel Ek / Spotify




Art / Creativity
Georg Petschnigg / Fiftythree

Design / Inspiration
Ben Silbermann Pinterest



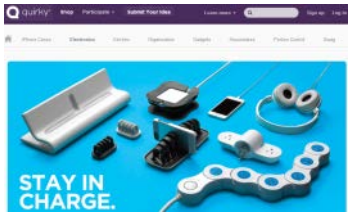

Sound
Alex Ljung + Eric Wahlforss / SoundCloud




News & Politics
Chris Altchek + Jake Horowitz / PolicyMic




Product Design
Ben Kaufman Quirky

Home Decoration
Adi Tatarko + Alon Cohen / Houzz

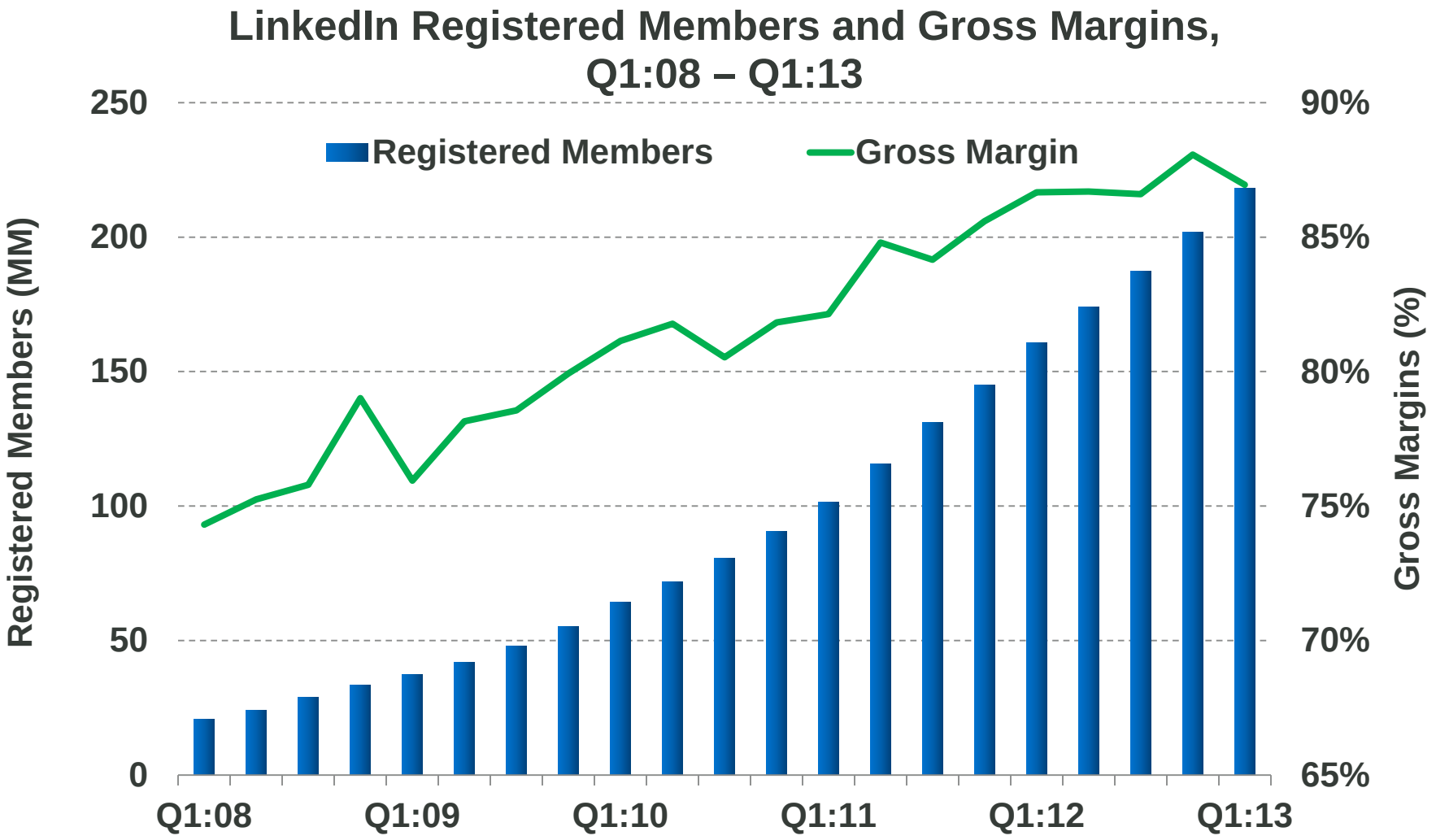



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SO, YOU WANT TO BE A PUBLIC COMPANY?

Internet IPO Standout – LinkedIn…

Registered Users = 218MM in Q1, +35% Y/Y; High Gross Margins (87%)

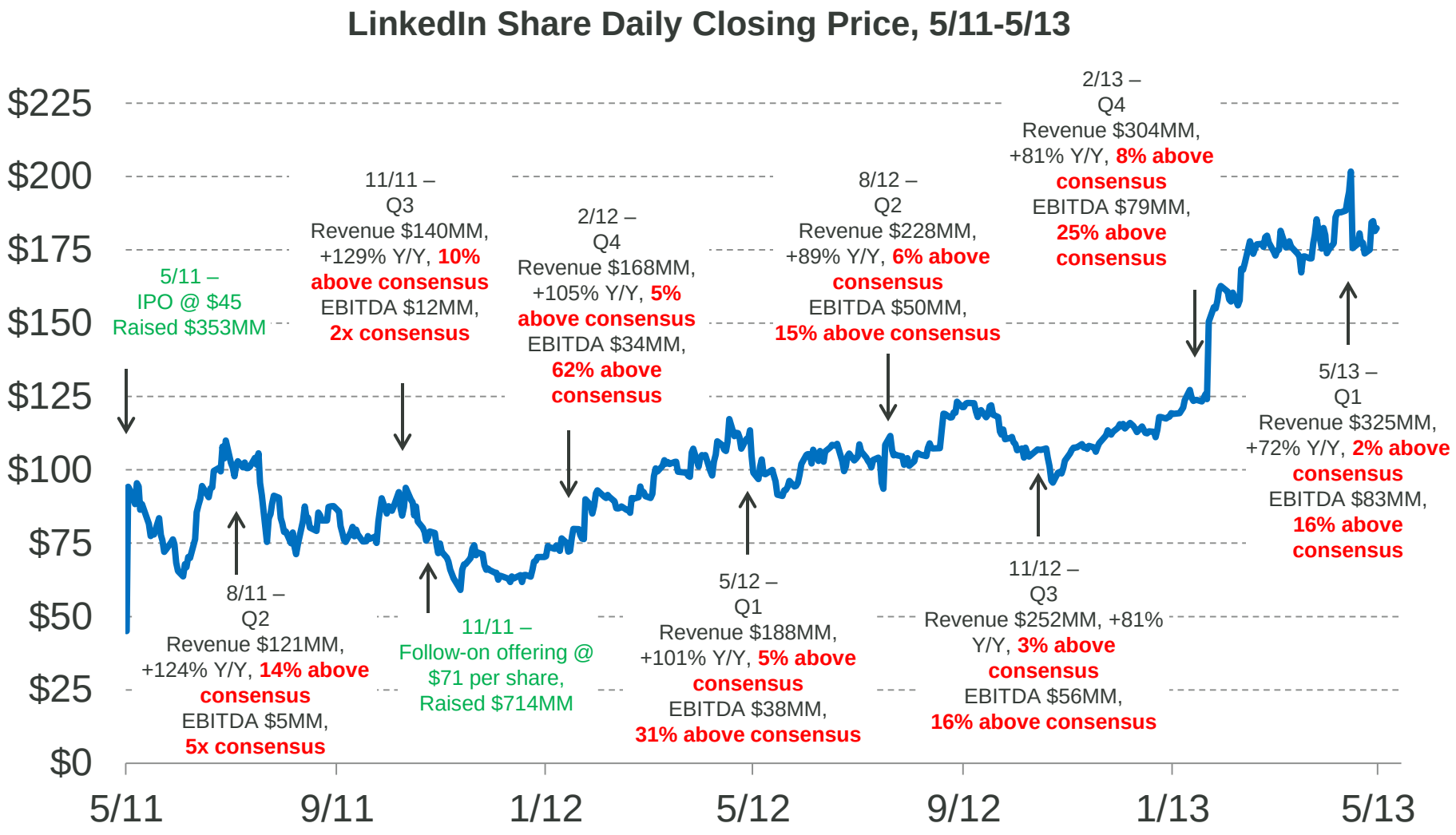


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Source: LinkedIn. Data as of 5/27/2013.

…Internet IPO Standout – LinkedIn

Averaged 7% Revenue / 83% EBITDA Upside Since IPO, Shares +305%



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Source: Yahoo Finance, Bloomberg, FactSet. Data as of 5/17/13.

Financial Dynamics of Internet Leaders

	eCommerce		Communication		Search	Hardware
	Amazon	**eBay**	**Facebook**	**Tencent**	**Google**	**Apple**
Years Since Founding	19	18	9	15	15	37
People	91K	32K	5K	24K	54K	80K
Users	209MM	116MM	1.1B	798MM	1.2B	500MM+
Cumulative						
Operating Expense	$50B	$42B	$5B	$5B	$63B	$87B
R&D	$15B	$7B	$2B	$2B	$26B	$21B
Capital Expenditures	$9B	$6B	$3B	$2B	$20B	$30B
Revenue	$246B	$79B	$12B	$20B	$153B	$695B
Gross Margin (%)	27%	69%	72%	56%	72%	37%
Free Cash Flow	$12B	$19B	$1B	$7B	$53B	$138B
Market Capitalization	$122B	$71B	$62B	$73B	$301B	$415B

Full lifetime data for all companies not available. Company (Years of Data) as follows: Amazon (19), eBay (17), Facebook (6), Tencent (12), Google (14), Apple (37 for revenue, 26 for others). Operating expenses exclude one-time, non-recurring charges and include depreciation, amortization, stock-based compensation. Data for eBay includes Paypal. eBay users are active members of eBay marketplace. Data for Google includes DoubleClick (back to 1996). Google gross margin based on revenue net of TAC. Google user data per ComScore. Market cap. figures as of 5/21/2013. Capital expenditures for Facebook include capital leases. Apple user figures based on estimated installed base of Mac, iPad, iPhone, iPod units assuming a 4-year replacement cycle for Macs, 3-year for iPads, 2-year for iPhones and iPods. Figures are not de-duplicated.
Source: Public filings, FactSet, Morgan Stanley Research, Yahoo! Finance, ComScore.

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Market Value = Google + Amazon + eBay + Tencent + Priceline + Yahoo! + Yahoo! Japan + Salesforce.com + LinkedIn Gain Y/Y… Apple + Baidu Fall

Rank	Company	Region	2013 Market Value ($B)	2012 Revenue ($MM)
1	Apple	USA	$416	$155,971
2	Google	USA	311	49,958
3	Amazon	USA	127	61,093
4	eBay	USA	76	14,028
5	Tencent	China	74	6,957
6	Facebook	USA	73	5,089
7	Priceline	USA	42	5,261
8	Baidu	China	33	3,540
9	Yahoo!	USA	30	4,987
10	Yahoo! Japan	Japan	29	3,304
11	Salesforce.com	USA	28	3,050
12	LinkedIn	USA	22	972
13	Rakuten	Japan	17	5,558
14	Netflix	USA	14	3,609
15	Liberty Interactive	USA	12	10,054
16	NHN	Korea	12	2,121
17	Yandex	Russia	10	926
18	Tripadvisor	USA	9	763
19	Netease	China	8	1,301
20	Verisign	USA	7	874
21	Mail.ru	Russia	6	682
22	Mercadolibre	Argentina	6	374
23	Groupon	USA	5	2,334
24	Nexon	Korea	5	1,359
25	Asos	UK	4	899
Total			$1,375	$345,064

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2013 market value data as of 5/20/2013. Source: FactSet, Google Finance, Morgan Stanley Research.

HIGH-SKILLED IMMIGRATION – PERSPECTIVE

Immigration in America & The Growing Shortage of High-Skilled Workers

Report / Presentation Can Be Found at www.kpcb.com/insights

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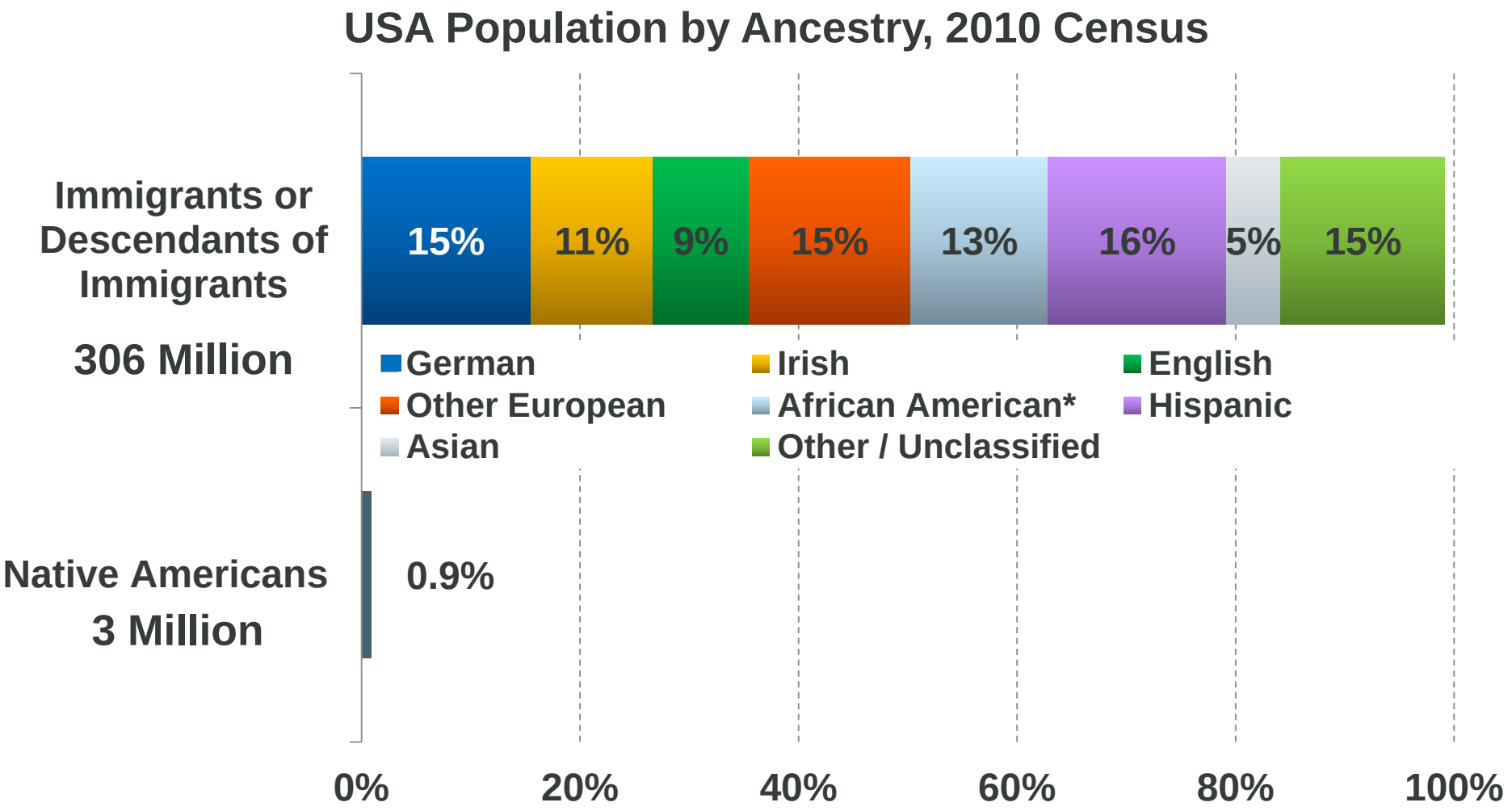
Why Did We Publish a Report on High-Skilled Immigration?

- America is the global leader in the technology industry.
- Immigrants (often with STEM* degrees) have been (and are) especially important to the vibrancy of tech companies.
- America has a shortage of high-skilled STEM workers and our tech leaders believe it's constraining their ability to compete and grow jobs in America.
- Government policy helps send many qualified foreign high-skilled workers home and constrains those that can come to America.
- Global environment for recruiting high-skilled STEM workers is likely to get much more competitive.
- Potential for immigration reform in America is very real and the future direction will likely be determined this year.
- This is a big issue for the technology industry – we encourage you to read / share / opine on the report – it can be found at kpcb.com/insights

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*Note: STEM = Science / Technology / Engineering / Mathematics.

99% Of Americans Are Immigrants Or Descendants Of Immigrants

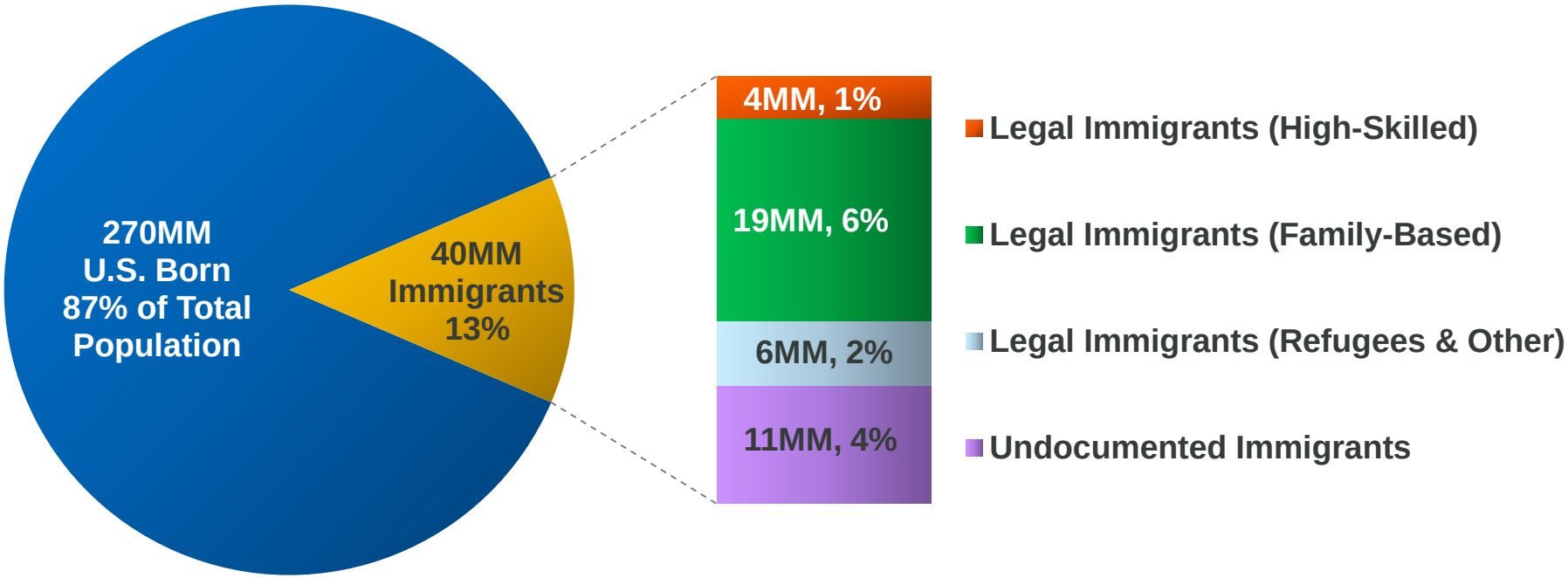


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Note: *African-American total includes those who came as slaves and not as voluntary immigrants.
Other includes North America (Canada), Australia, New Zealand, and those who have more than one ethnicity reported.
Source: Census Bureau, 2010 data.

High-Skilled Immigrants Are Only 1% Of Total U.S. Population

U.S. Population at a Glance, U.S. Born vs. Immigrants by Type of Admission, 2010



Total USA Population = 310MM

Note: Number of undocumented immigrants currently residing in USA is an estimate by PEW Hispanic Center based on Census data. Precise breakdown of legal immigrants currently residing in USA by type of admission is not available and is an estimate based on Census data as well as Department of Homeland Security immigrant admission data from 1986 to 2010. Source: Census Bureau, PEW, DHS.

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56% of Top 25 Tech Companies Founded By 1st & 2nd Generation Americans = 1.2MM Employees, 2012

Founders / Co-Founders of Top 25 U.S. Public Tech Companies, Ranked by Market Capitalization

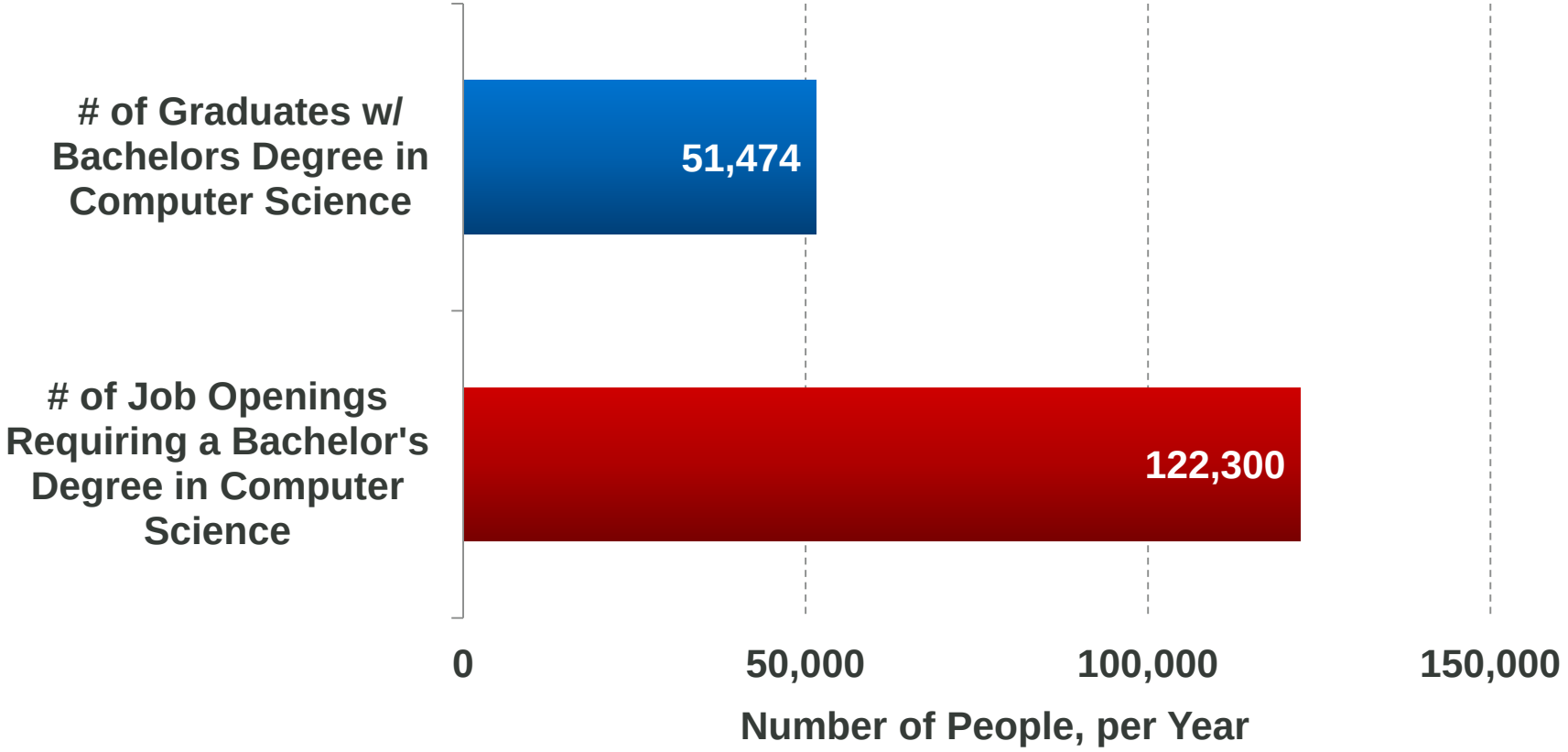
Rank	Company	Mkt Cap ($MM)	LTM Rev ($MM)	Employees	Founder / Co-Founder	Generation
1	Apple	$416,622	$164,346	76,100	Steve Jobs	2nd-Gen, Syria
2	Google	268,445	49,958	53,861	Sergey Brin	1st-Gen, Russia
3	IBM	239,530	104,507	434,246	Herman Hollerith	2nd-Gen, Germany
4	Microsoft	234,828	72,764	94,000	Bill Gates	--
5	Oracle	172,044	37,230	115,000	Larry Ellison	2nd-Gen, Russia
6	Amazon.com	119,011	61,093	88,400	Jeff Bezos	2nd-Gen, Cuba
7	Cisco	116,904	47,252	66,639	Leonard Bosack	--
8	Intel	105,721	53,341	105,000	Gordon Moore / Robert Noyce*	--
9	Ebay	65,357	14,028	31,500	Pierre Omidyar	1st-Gen, France
10	Facebook	63,472	5,089	4,619	Mark Zuckerberg	--
11	EMC	53,347	21,714	60,000	Roger Marino	2nd-Gen, Italy
12	Hewlett-Packard	43,118	118,397	331,800	William Hewlett	--
13	Texas Instruments	38,756	12,690	34,151	Cecil Green	1st-Gen, UK
14	VMware	35,917	4,605	13,800	Edouard Bugnion	1st-Gen, Switzerland
15	Priceline	35,583	5,261	7,000	Jay Walker	--
16	Automatic Data Processing	31,274	10,945	57,000	Henry Taub	2nd-Gen, Poland
17	salesforce.com	25,840	3,050	9,800	Marc Benioff	--
18	Dell	25,003	56,982	111,300	Michael Dell	--
19	Yahoo!	24,306	4,987	11,700	Jerry Yang	1st-Gen, Taiwan
20	Cognizant Technology	23,648	7,346	156,700	Francisco D'Souza	1st-Gen, Nairobi
21	Adobe	20,640	4,373	11,144	John Warnock	--
22	Broadcom	19,713	8,006	11,300	Henry Samueli	2nd-Gen, Poland
23	Intuit	19,393	4,153	8,500	Scott Cook	--
24	LinkedIn	19,357	972	3,458	Konstantin Guericke	1st-Gen, Germany
25	Symantec	16,916	6,839	20,500	Gary Hendrix	--
Total Founded by 1st or 2nd Gen Immigrants		**$1,514,038**	**$494,675**	**1,163,816**		

*Note that while Andy Grove (from Hungary) is not a co-founder of Intel, he joined as COO on the day it was incorporated.
Source: FactSet as of 3/13; "The 'New American' Fortune 500", a report by the Partnership for a New American Economy; "American Made, The Impact of Immigrant Founders & Professionals on U.S. Corporations"

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Computer Science Job Opening Forecast = 2.4x # of Computer Science Graduates

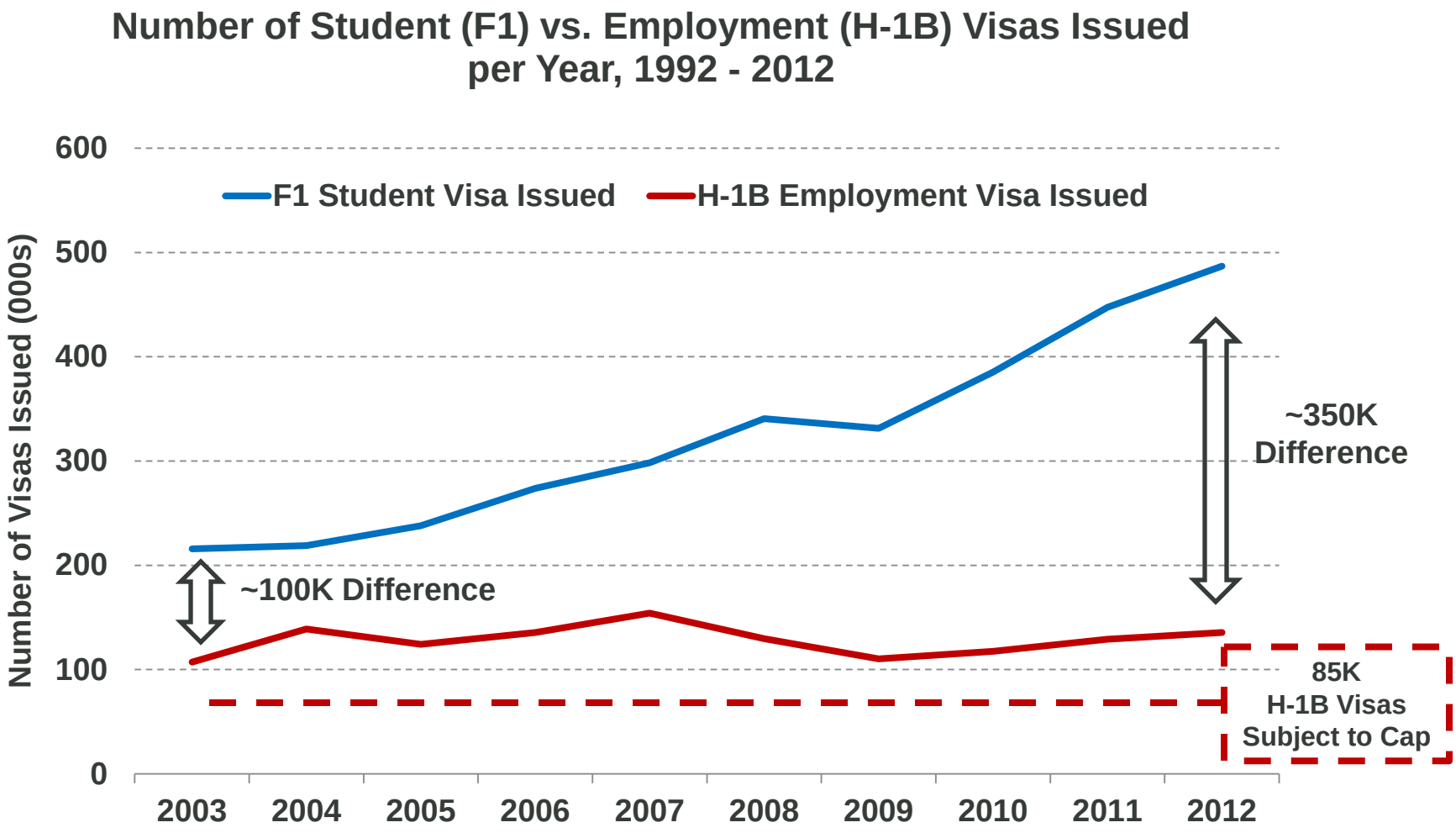
Projected Average Annual # of Graduates w/ Bachelors Degree in Computer Science vs. # of Job Openings Requiring a Bachelors Degree in Computer Science, 2010-2020E



KPCB

Source: Microsoft analysis (published in 2013) based on Bureau of Labor Statistics data.

USA Sending More Qualified Foreign Students Home Post Graduation - 3.5x Rise in Student & Employment Visa Issuance Gap Over Decade



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Source: U.S. Department of State.

Startups & Big Tech Companies Can't Hire Enough Engineers

Street View From Silicon Valley



Five High-Tech Companies Alone – IBM, Intel, Microsoft, Oracle And Qualcomm – Have Combined 10,000 Current Openings In The United States.

KPCB

Image: View outside of Quixey's office on Castro St. in Mountain View, CA. Picture by Joshua Stanton-Savitz. Data source: Technology CEO letter to the president and lawmakers, 3/13. http://www.scribd.com/doc/130388692/Tech-CEO-letter

Read More @ kpcb.com/insights

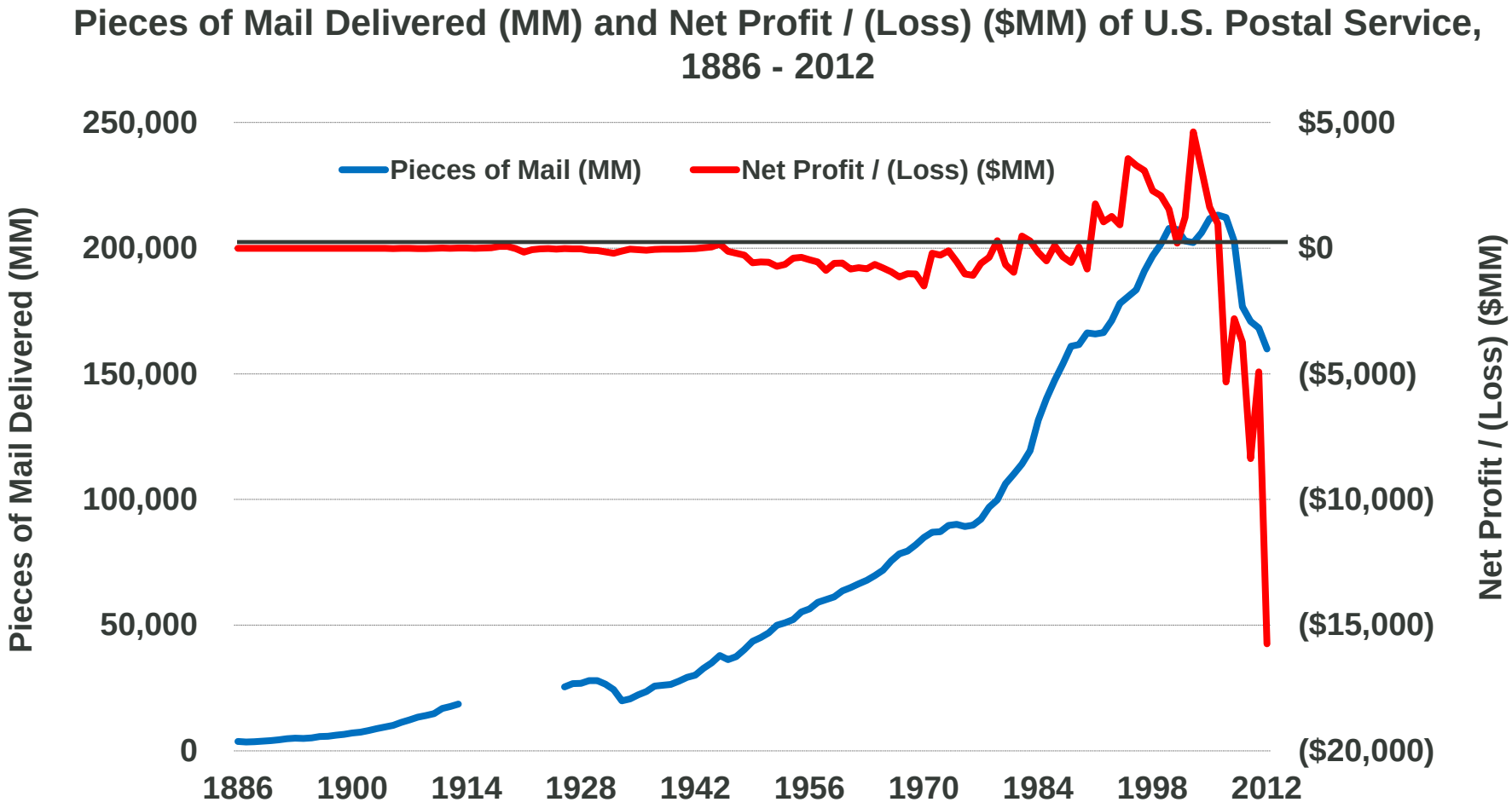


APPENDIX

Traditional Industries Being Re-Imagined

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U.S. Postal Service Mail Volume Peaked in 2006 Owing to Email Rise… Profitability Plummeted

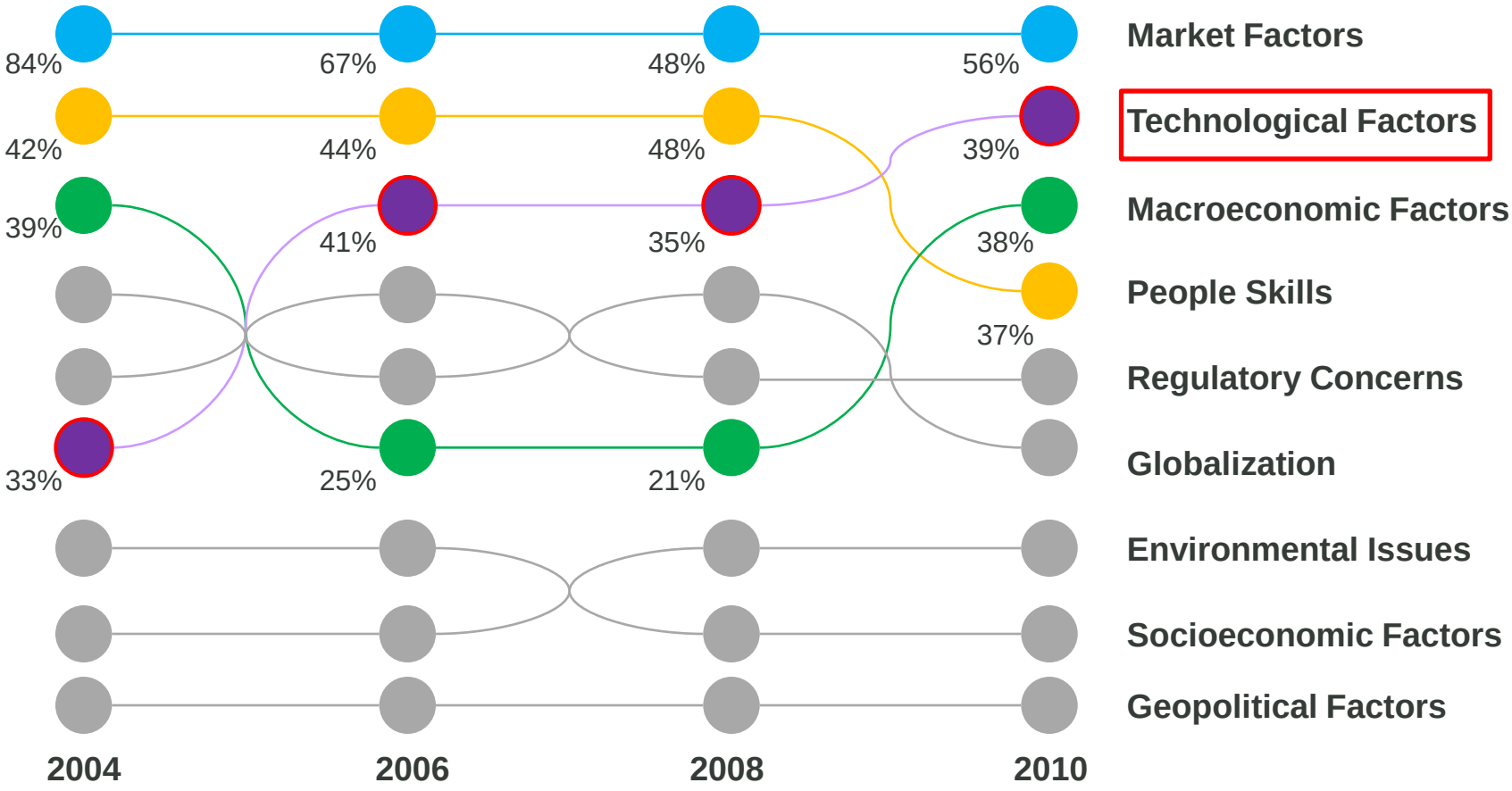


KPCB

Source: Annual Report of the Postmaster General. Data not available for 1914 - 1925.

Relative Impact of Technology on Large Organizations = #2 Concern & Rising Rapidly

% of CEOs Who Thought The Following External Factors Would Have The Biggest Impact on Their Organizations…



Source: IBM, "Capitalizing on Complexity: Insights from Global CEO Study", May 2010. Study consisted of face-to-face conversations with over 1,500 CEOs worldwide. Executives were asked to discuss top three external forces that will have the biggest impact on their organizations.

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Financial Services - Context

- **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. 1.8% 10-Year US Treasury bond yield*.

- **16B paper bills sent** per year in USA.
- **4.3B bills paid** by paper check per year in USA.

Source: *Credit Card #s per Federal Reserve Bank of Boston, Credit Card interest rate per Indexcreditcards, 10-year Treasury yield are 5/13 averages, per Dept. of Treasury. Bill data per Fiserv.

Emerging Financial Services Metrics

Company	Gross Volume	Y/Y Growth	# Users
Square	**$15B+** Gross Payment Volume Processed to Date	**~3x Y/Y**	**4MM+** Merchants
LendingClub	**$1.8B+** Loans Issued to Date	**~3x Y/Y**	**137K+** Loans Funded to Date
Check formerly Pageonce	**$500MM+** Gross Payment Volume of bills Per Year	**~17x Y/Y**	**8MM+** Registered Users
bitcoin	**18MM+** Cumulative Transactions	**~5x Y/Y**	**11MM+** Bitcoins in Circulation
Chase Mobile® CHASE	**$29B+** Gross Mobile Payment Volume Per Year	**~2.5x Y/Y**	**20MM+** Registered Users

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Square Y/Y growth excludes partnerships. Lending Club loans issued to date as of 5/25/2013. Bitcoins data as of 5/25/2013, per Blockchain.
Source: Square, LendingClub, Check, Blockchain.info, JP Morgan Chase.

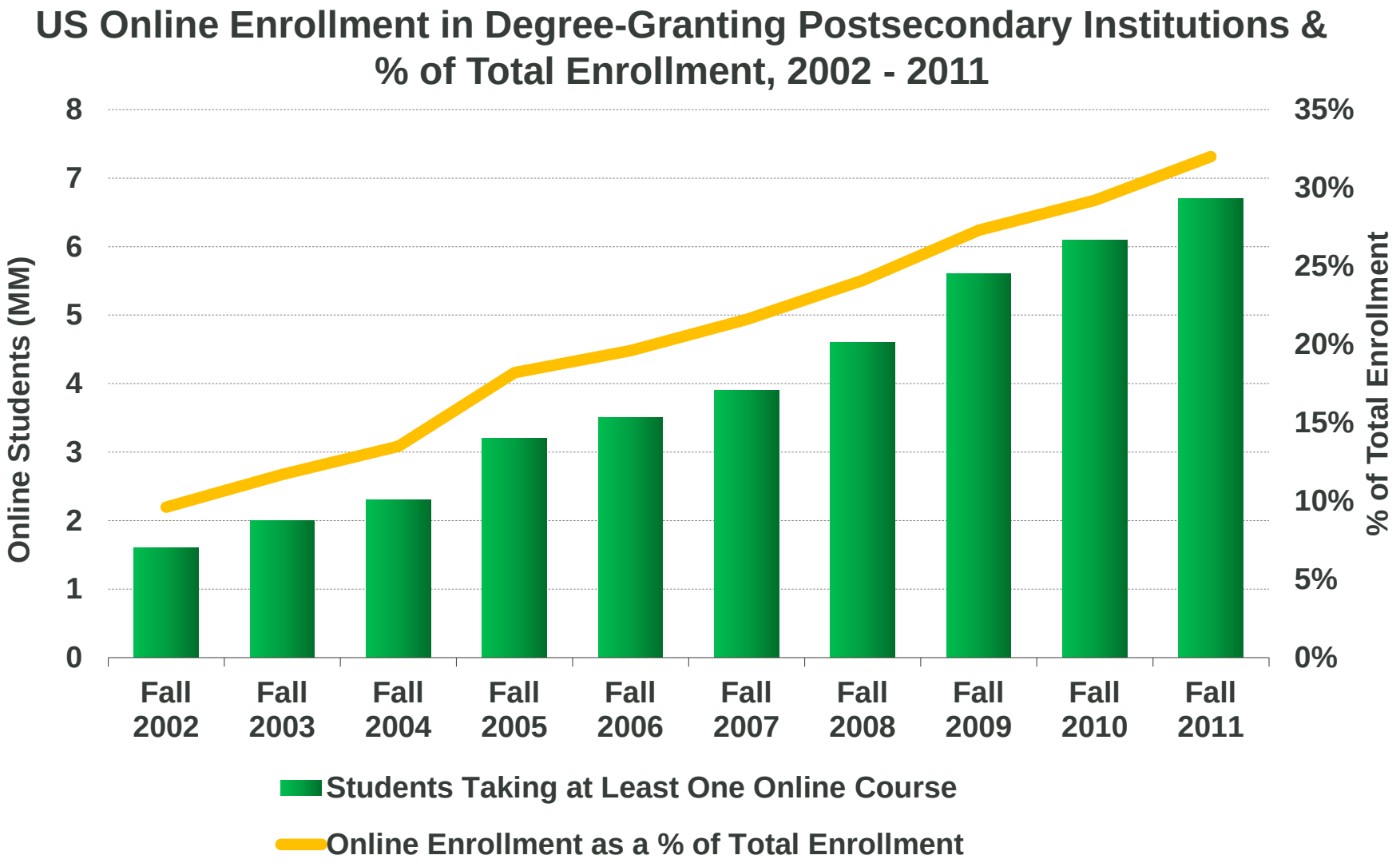
Education - Context…

- **$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.

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Source: **Federal Reserve Bank of New York. Programme for International Student Assessment (PISA).

Online Education Growing Rapidly =
32% of Students Taking at Least One Online Course, 2011

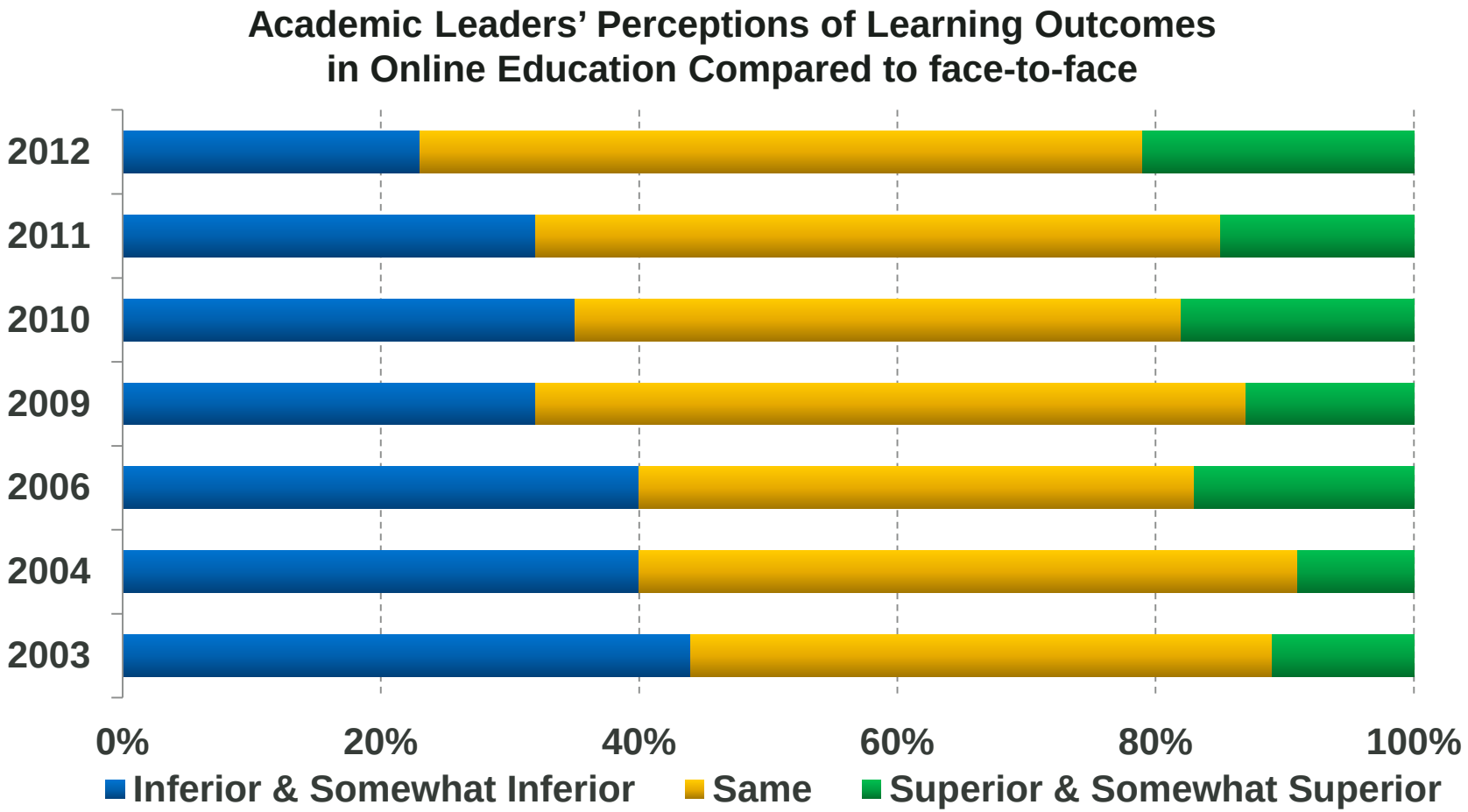


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Source: *Changing Course: 10 Years of Tracking Online Education in the United States.* Babson Survey Research Group 1/13.

Online Education =
Quickly Becoming More Accepted

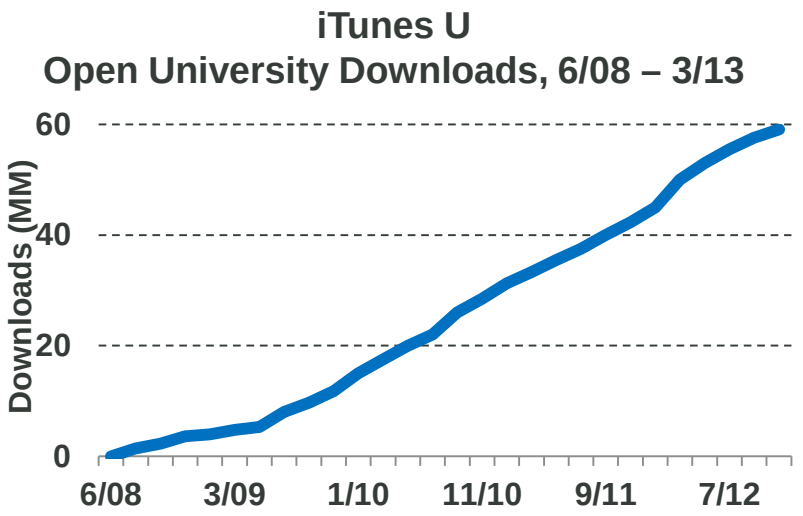
77% of academic leaders at over 2,800 US colleges perceive online education as the same or superior as compared to face-to-face education

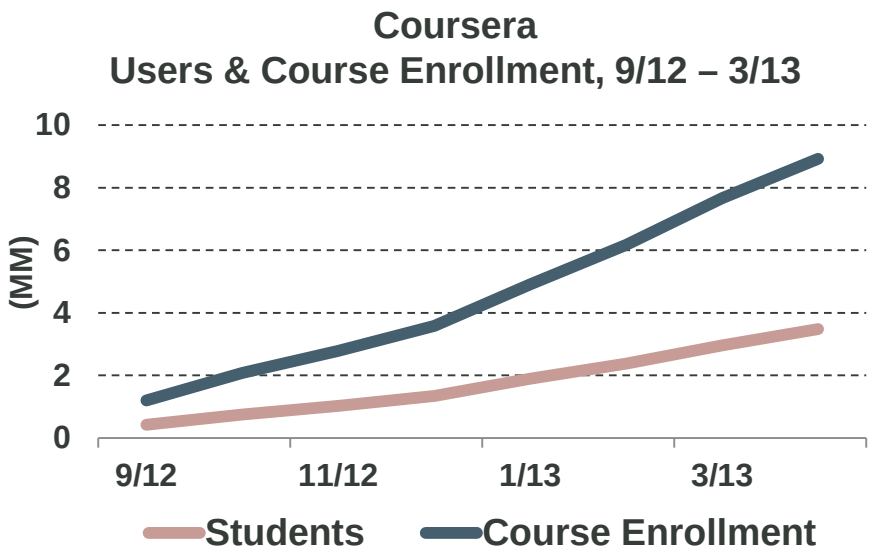


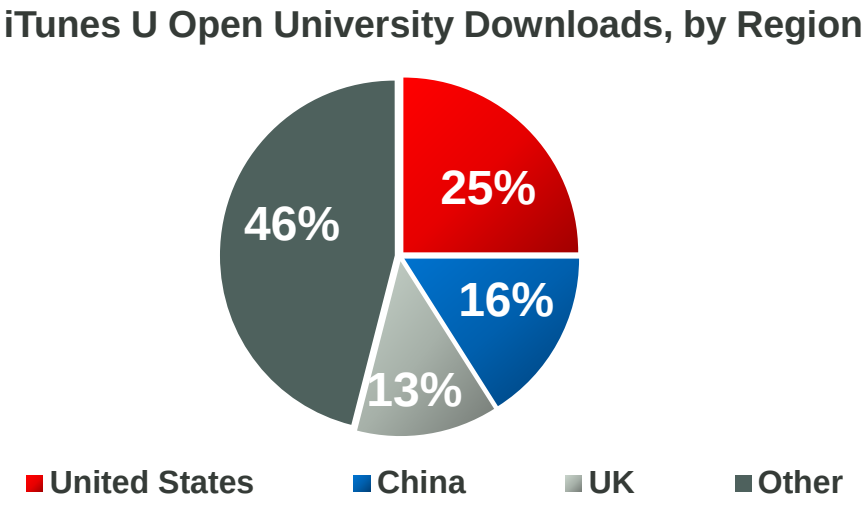
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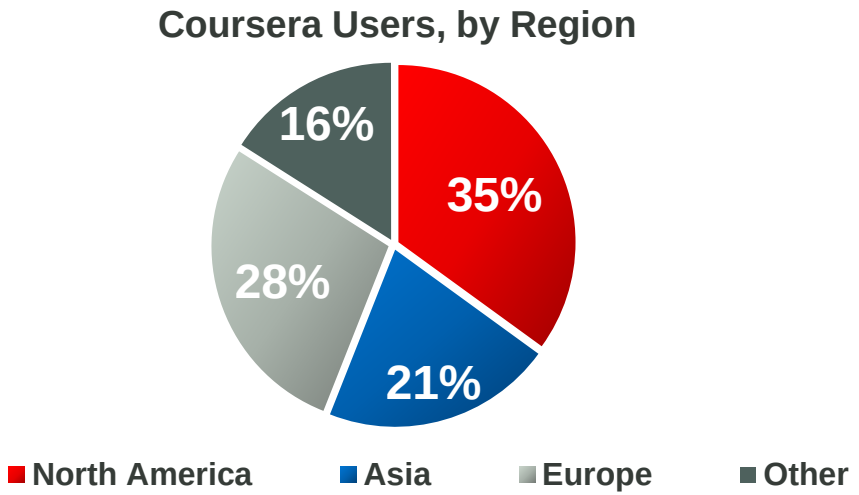
Source: *Changing Course: 10 Years of Tracking Online Education in the United States.* Babson Survey Research Group 1/13.

Education Being Democratized =
Fast Global MOOC (Massively Open Online Course) User Growth









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Source: The Open University 3/13, & Coursera Company Data, 4/13.

Healthcare – Context…

- **$2.6T+** annual spend on healthcare in USA, 18% of GDP in 2010, up from 5% in 1960, and 2x OECD average.
- **~100MM** Americans (30%) of Americans considered obese in 2012, up from 15% in 1990.
- **$147B** estimated medical costs associated with obesity in 2008, up from $79B in 1998.

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Source: American Heart Association, Center for Medicare & Medicaid Services, 2012, OECD.

Right Story, Great Reporting…Perhaps, Right Time



When we debate health care policy, we seem to jump right to the issue of who should pay the bills, blowing past what should be the first question:

Why exactly are the bills so high?

- Steven Brill, *Time*, March 2013

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Re-Imagination is Alive & Well

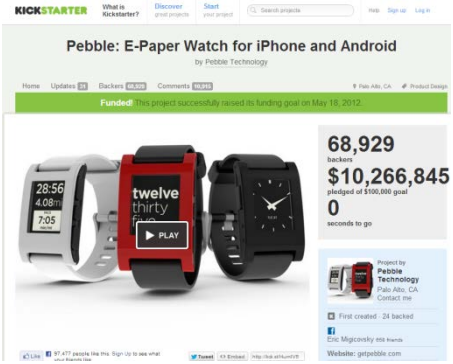
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Re-Imagination of Basic Business Process…

Building / Funding

KickStarter

Online / Social Distribution / Real-Time Progress



Logistics

JD.com (360buy)

At Your Door Same-Day Delivery / Real-Time Tracking / Last Mile on Bikes



Manufacturing

MakerBot

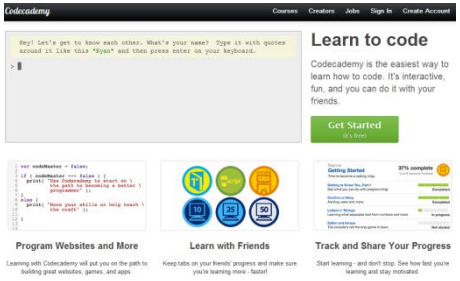
3-D Prototyping / Printing



Education

Codecademy

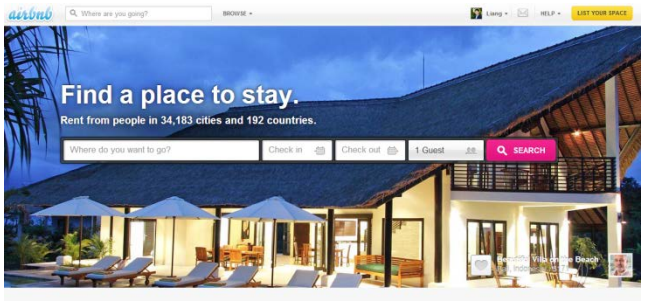
Accessible by Anyone, Anywhere, Anytime



Housing

Airbnb

Turn Privately-Owned Properties into Hotel Experience



Transportation

Uber

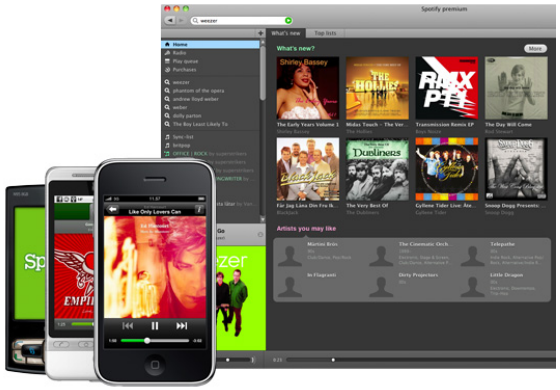
On-Demand Transportation



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Re-Imagination of Asset-Heavy Products / Services…

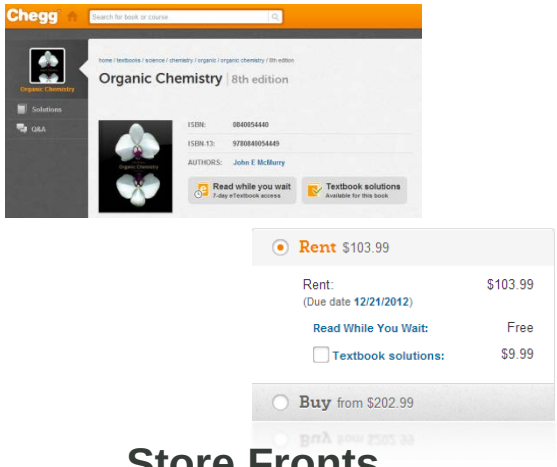
Music
(Spotify)
Pay for Access / Instant On-Demand Streaming on Internet-Enabled Devices



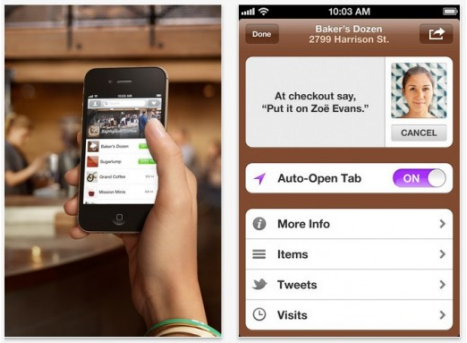
Video
(Netflix)
On-Demand / Instant Access Anywhere



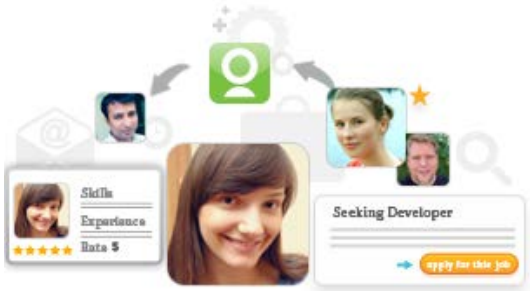
Textbooks
(Chegg)
Pay For Usage Rights During Semester



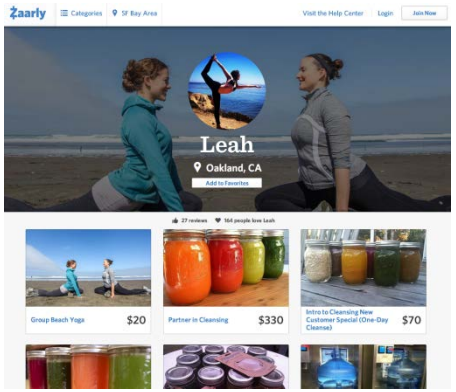
Wallet
(Square)
Smartphone is the New Wallet



Employment
(oDesk / eLance)
Workforce as a Service (WaaS) / On-Demand / Global



Store Fronts
(Zaarly)
Anyone Can Open / Beautifully Designed



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Re-Imagination of R&D…

Minted

- 85K designs submitted
- 4MM monthly visitors

minted.



minted. + west elm

Submit your art prints for a chance to be sold in West Elm stores across the country.

Quirky

- 87K designs submitted
- 360K registered users

Quirky



Quirky + GE

Submit your idea for an app-enabled product that will make your home smarter.

99Designs

- 228K designers
- 216K contests

99designs

Launch your contest

We list your design contest in our marketplace for our community of more than 200,000 designers to see. From Berlin to Bombay, professional creatives will read your brief and begin to brainstorm ideas just for you.

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Source: Company data.

Re-Imagination of “Learning Tools” = Twitter / YouTube / Google Docs / Google / WordPress

- 582 learning professionals worldwide were asked to provide their top 10 tools used for learning in 2012 / 2009
- ‘Learning tool’ is defined as any tool that you could use to create or deliver learning content/solutions for others, or a tool you use for your own personal learning
- The 2012 survey compiled data from 582 learning professionals worldwide (55% working in education & 45% in non-educational organizations

C4LPT Ranking of Top Learning Tools

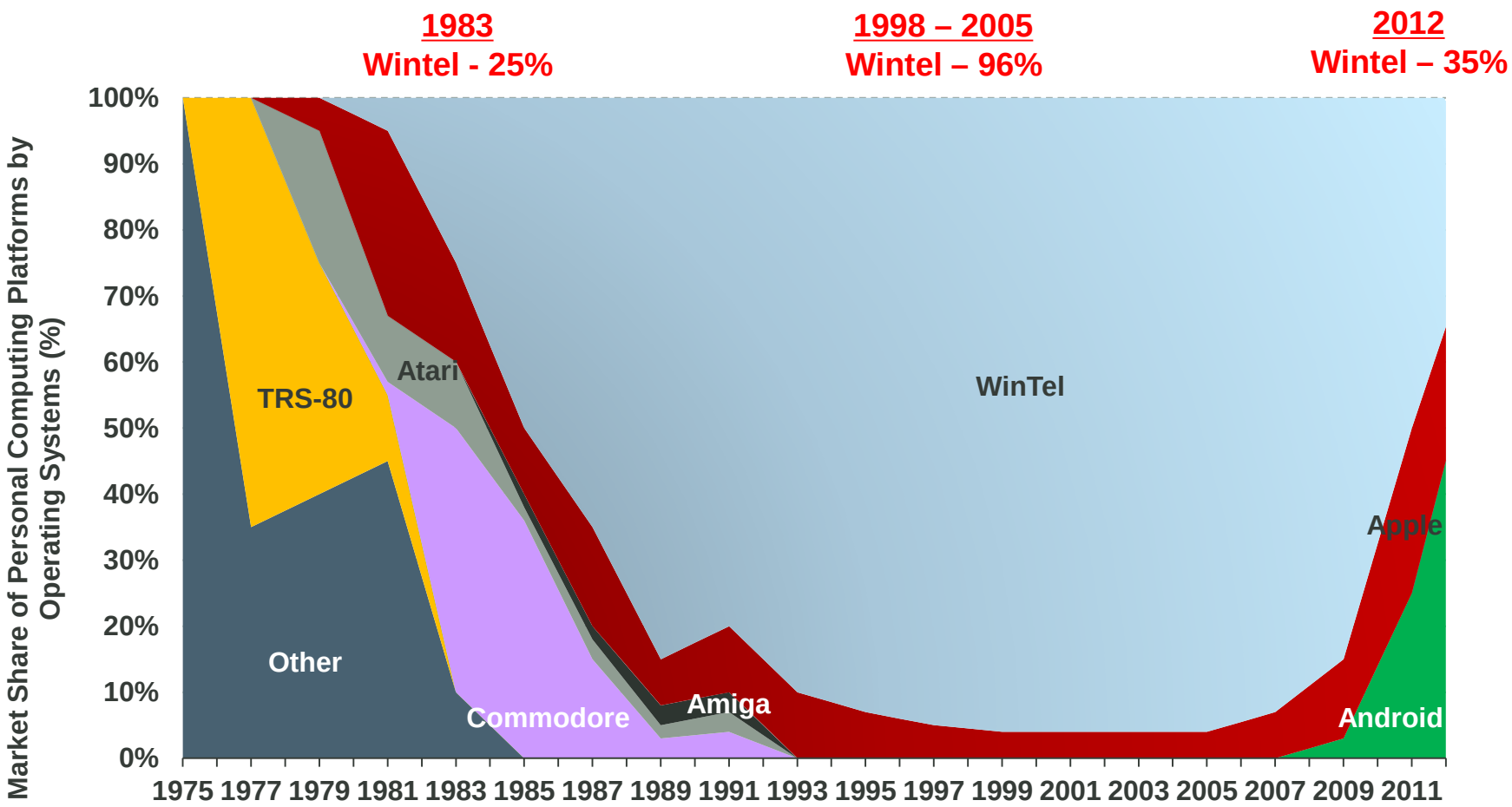
Company	2012 Rank	2009 Rank
Twitter	1	1
YouTube	2	3
Google Docs*	3	5
Google Search	4	8
WordPress	5	6
Dropbox	6	71
Skype	7	11
Powerpoint	8	13
Facebook	9	31
Wikipedia	10	17
Moodle	11	14
Evernote	12	27
Slideshare	13	7
Prezi	14	28
Blogger / BlogSpot	15	14

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Source: Centre for Learning & Performance Technology (C4LPT) Top 100 Tools For Learning 2012.

Re-Imagination of Computing Operating Systems - iOS + Android = 60% Share vs. 35% for Windows

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



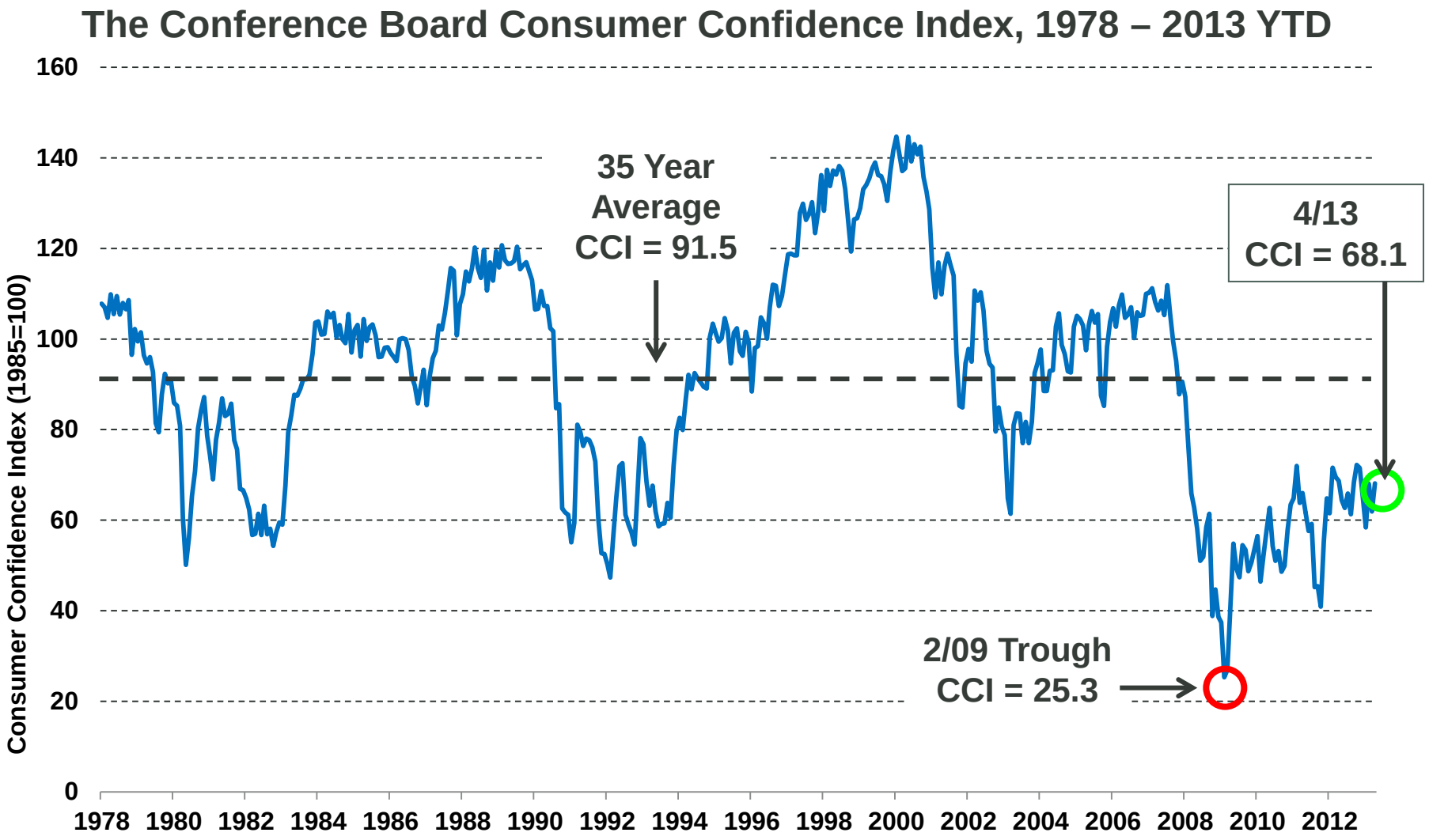
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Source: Asymco.com (as of 2011), Public Filings, Morgan Stanley Research, Gartner for 2012 data.

USA, Inc.

Report / Presentation Can Be Found at www.kpcb.com/insights

Consumer Confidence =
At Five-Year Highs, Though Still Well Below 30-Year Average



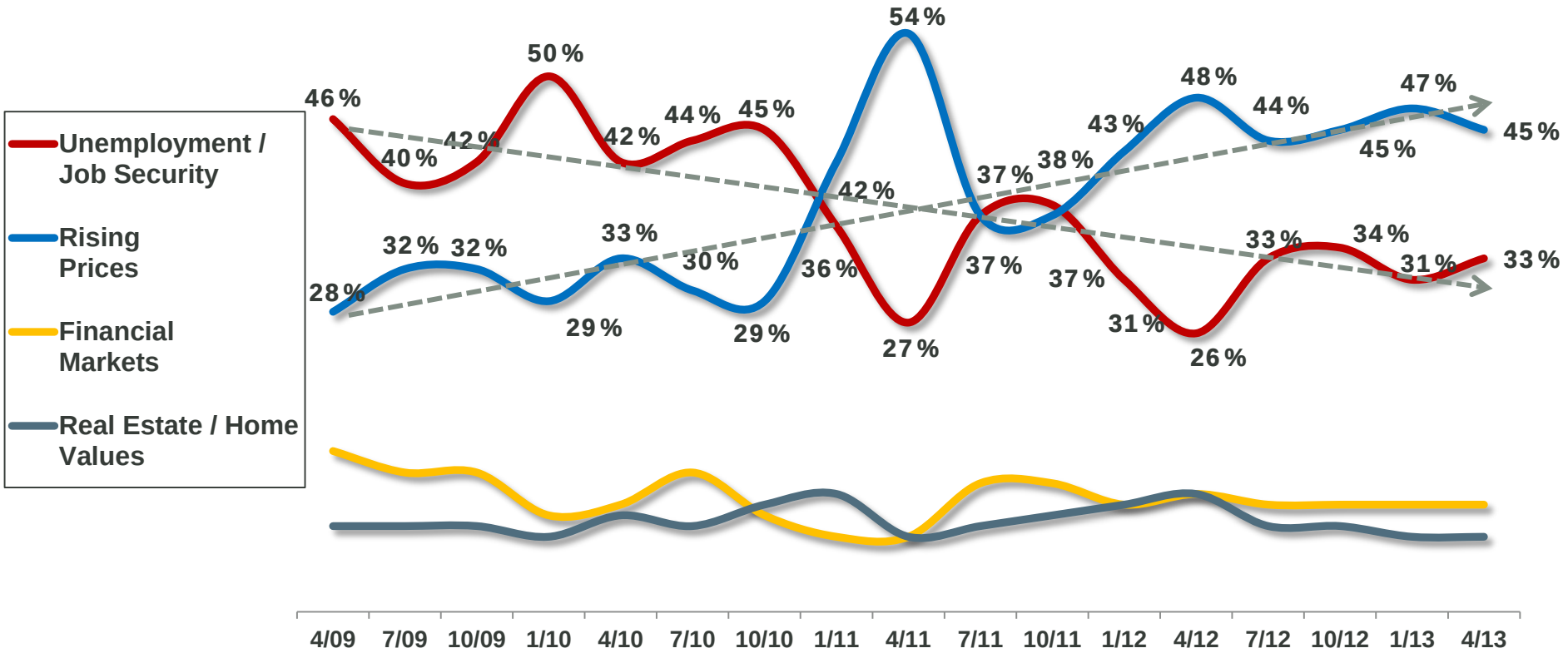
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Note: Index started in 1967 / benchmarked to 1985=100. The Index is calculated each month on the basis of a household survey of consumers' opinions on current conditions and future expectations of the economy. Source: The Conference Board, 5/13.

Consumers Less Concerned About Employment, More Concerned About Rising Prices

Percent of USA Respondents Citing Their One Most Important Issue, 4/09 – 4/13

Q. Based on your current situation, which one of the following economic conditions most concerns you?

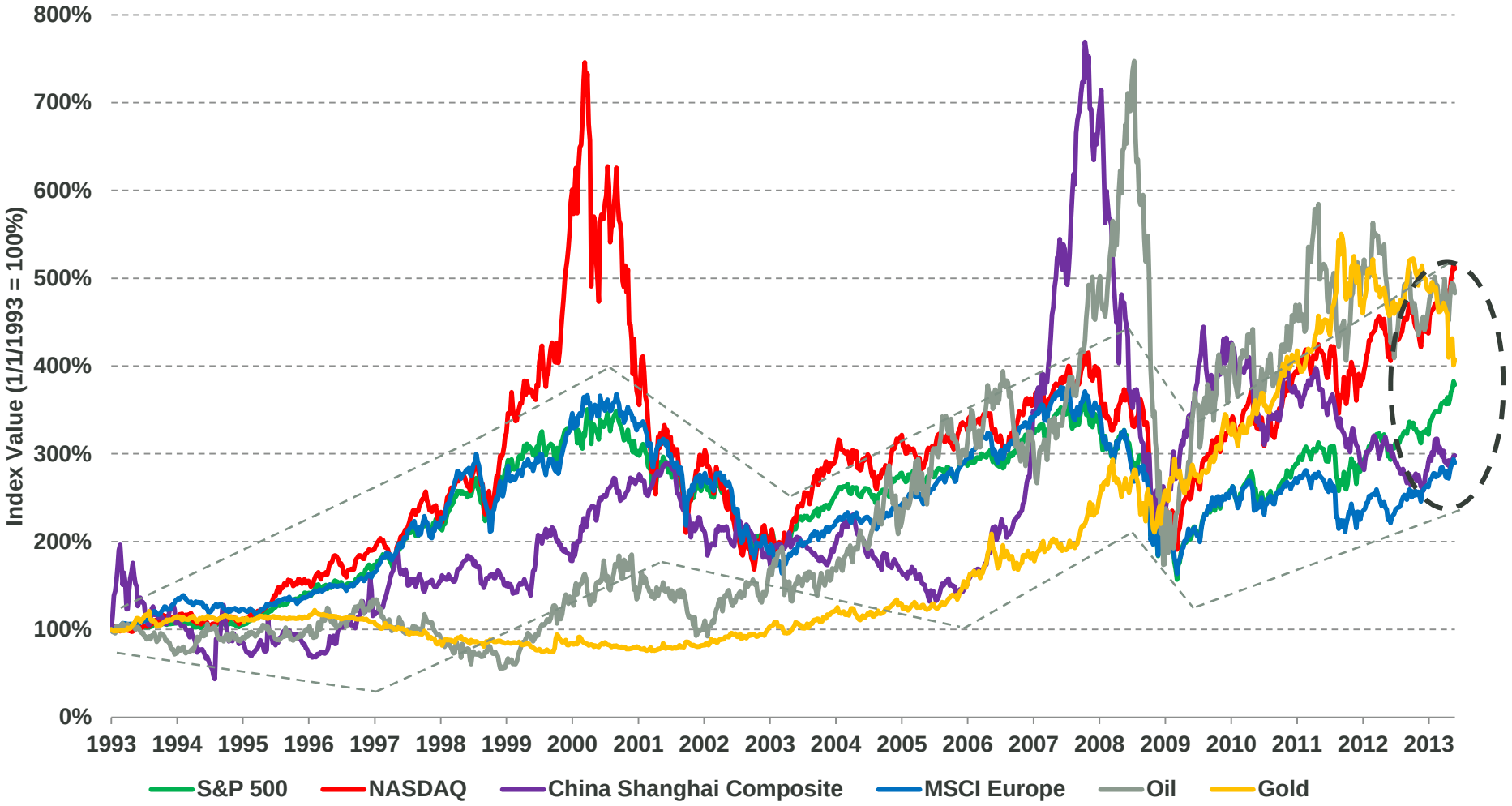


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Source: comScore surveys, 4/13.

Stock Markets =
Often Leading Indicators of Economic Activity

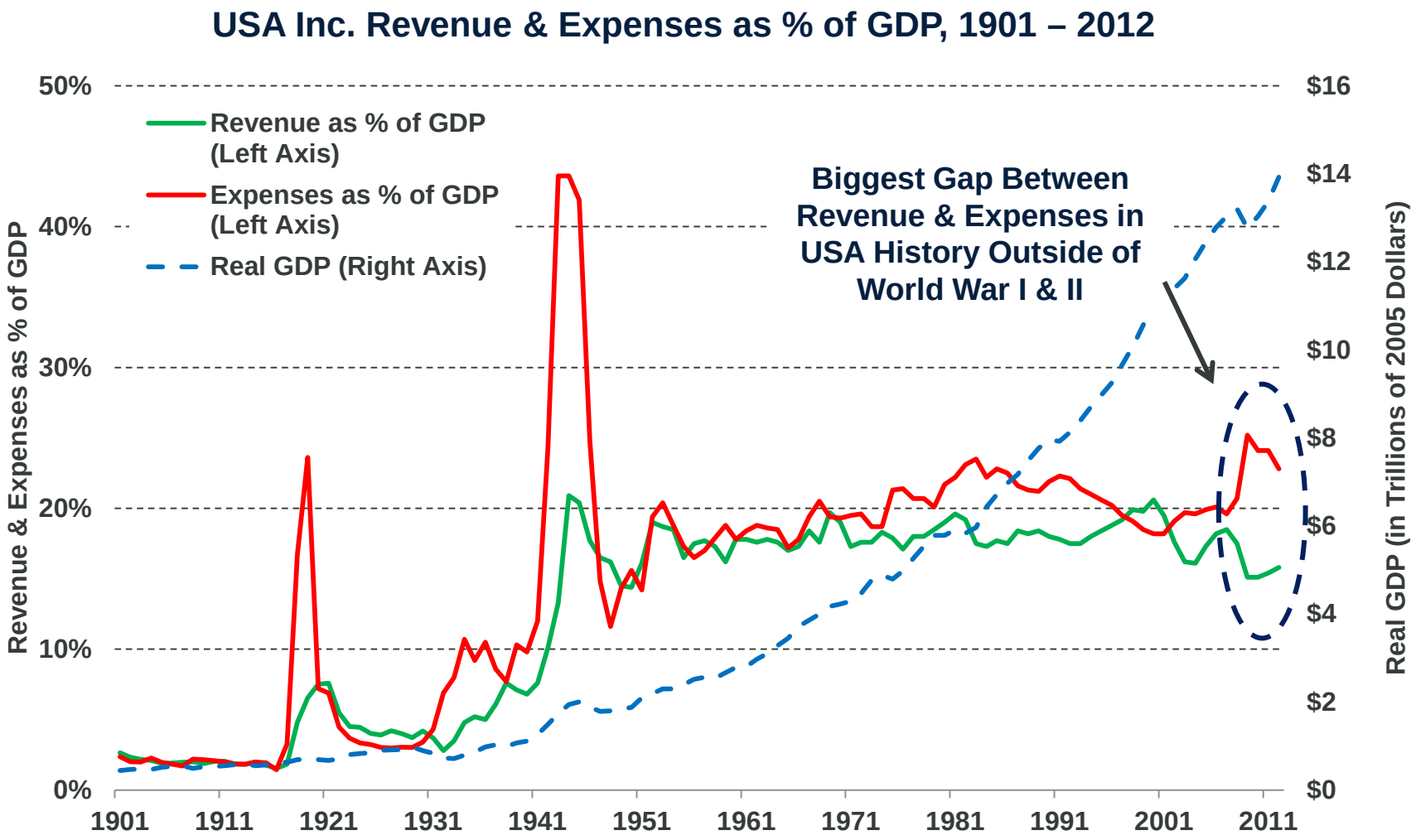
Stock / Commodity Markets Performance (% Change From 1/93), 1/93 – 5/13



Note: All values are indexed to 1 (100%) on Jan 1, 1993. Data as of 5/24/13.
Source: FactSet.

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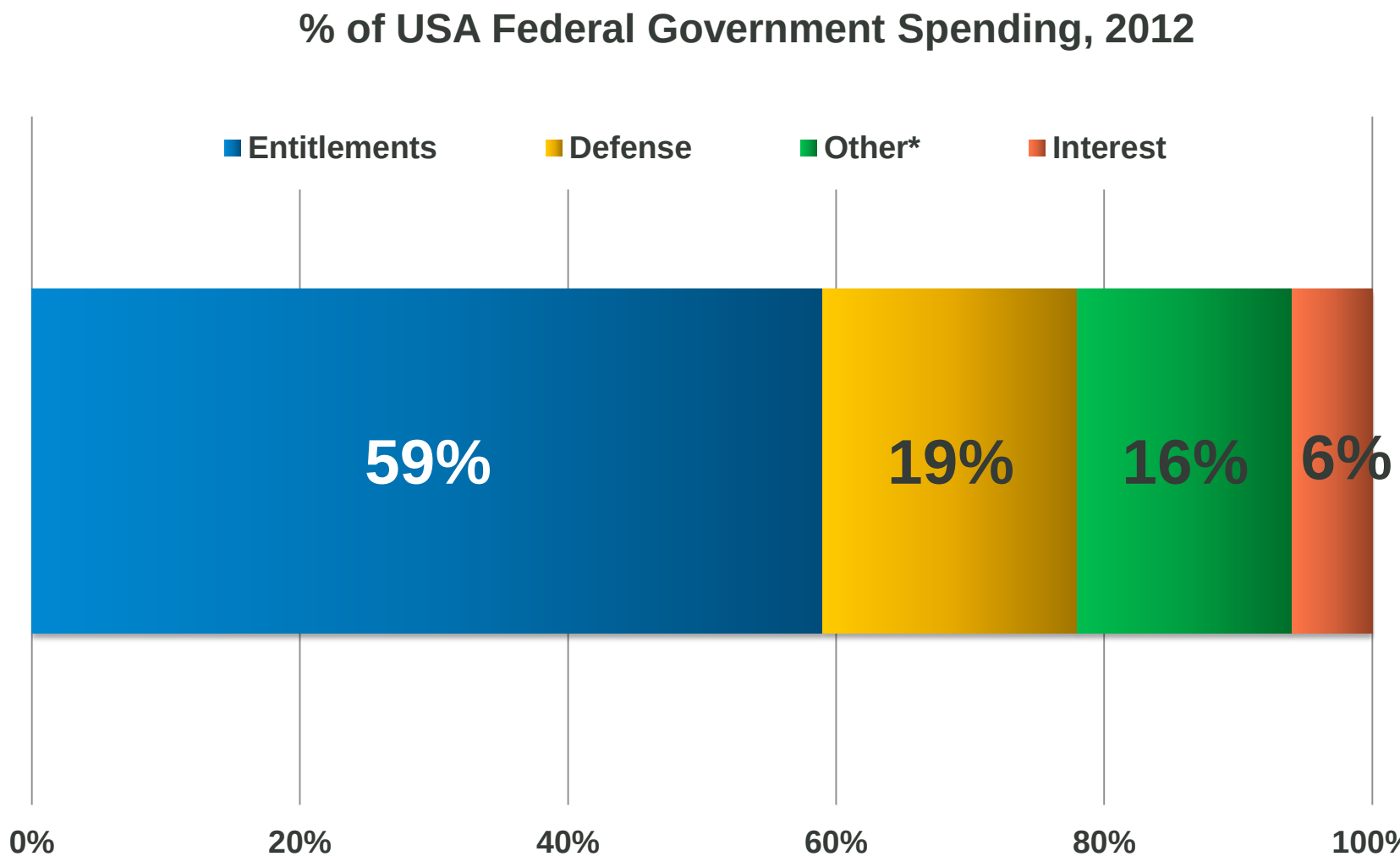
USA, Inc. – Biggest Gap Between Revenue & Expenses in USA History Outside of World War I & II



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Source: 1910 – 1930 per Census Bureau, 1940-2012 per White House OMB. Real GDP adjusted for inflation, in 2005 dollars.

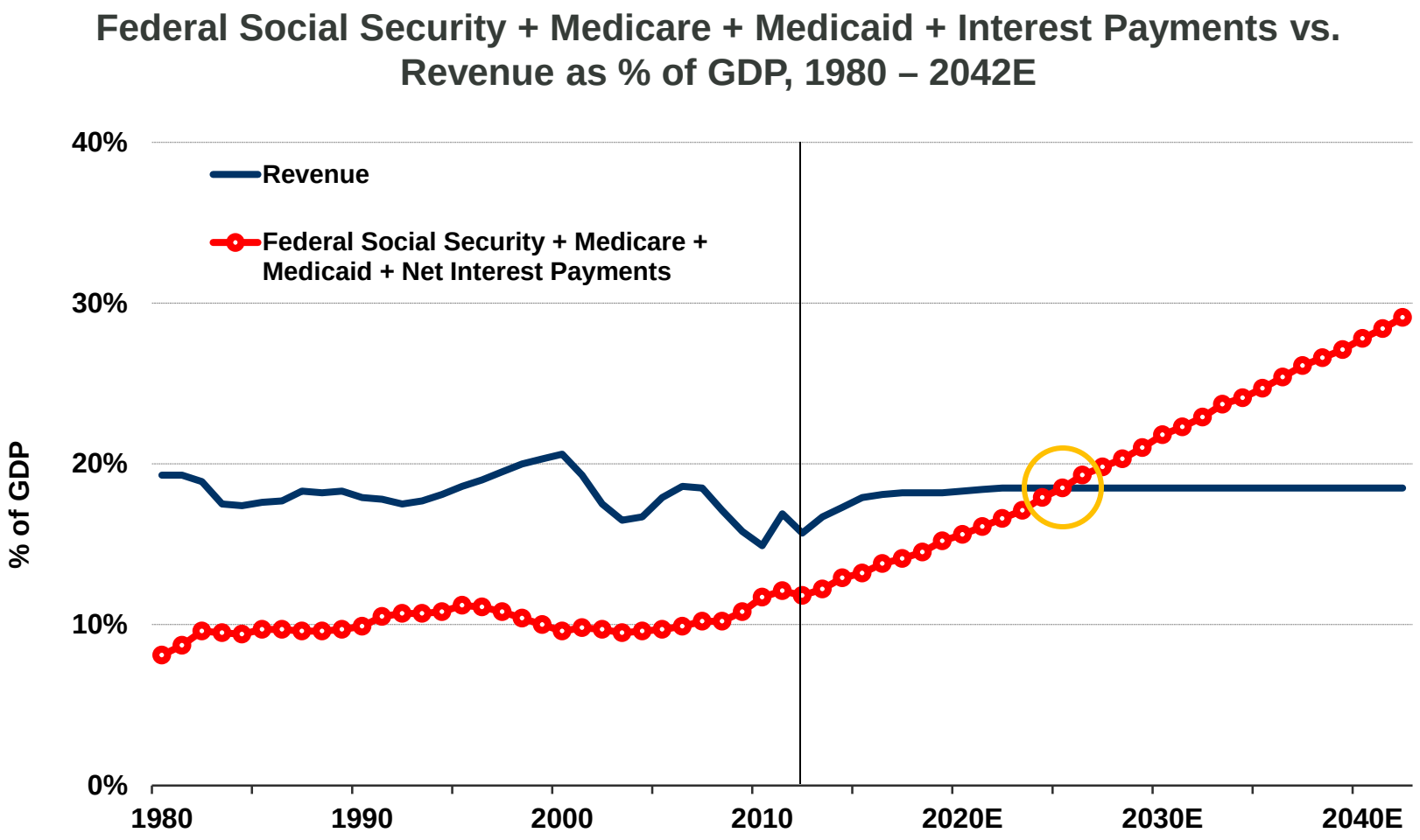
# Where Your Tax Dollars Go –
Entitlements = 59%



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Note: Federal entitlement expenses include Social Security, Medicare and Medicaid.
Source: White House OMB.

USA Social Security + Medicare + Medicaid + Interest Payments Should Exceed Federal Revenue Within 12 Years, 35 Years Sooner than 1999 Forecast, per CBO



Source: Congressional Budget Office (CBO) Long-Term Budget Outlook (6/12). Data in our chart is based on CBO's 'alternative fiscal scenario' forecast, which assumes a continuation of today's underlying fiscal policy. Note that CBO also maintains an 'extended-baseline' scenario, which adheres closely to current law. The alternative fiscal scenario deviates from CBO's baseline because it incorporates some policy changes that are widely expected to occur and that policymakers have regularly made in the past.

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