

2014年互联网趋势报告

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kpcb.com/InternetTrends

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报告概要

- 1) Key Internet Trends
- 2) Status Update – Tech Stocks / Education / Healthcare
- 3) Re-Imagining Continues
- 4) Screen + Video Growth = Still Early Innings
- 5) China's Epic Share Gains
- 6) Public Company Trends
- 7) One More Thing(s)
- 8) Ran Outta Time Thoughts / Appendix

互联网主要趋势

高级用户趋势

- 互联网用户

增幅小于10%，印度、印尼和尼日利亚等发展中国家增长迅速，但难以商业化。

- 智能手机用户

增20%，增速快但正在放缓。

- 平板电脑

增52%，处于早期快速增长阶段。

- 移动数据

增81%，加速增长，视频驱动力很强。

移动增长非常迅速

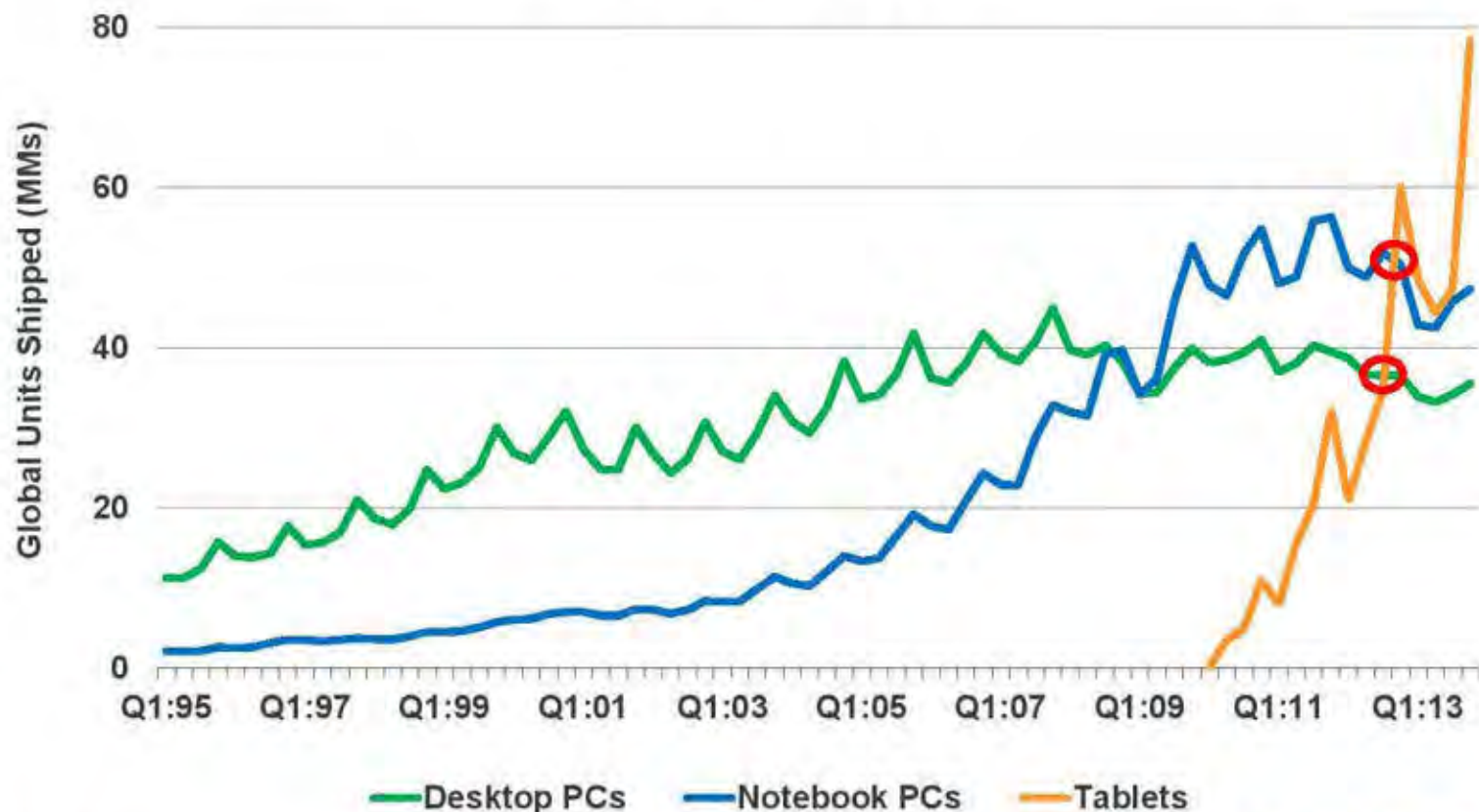
智能手机用户 仅占52亿移动用户的30%，还有很大空间

Global Smartphone Quarterly Unit Shipments & Smartphone Users as % of Mobile Phone Users, 2009 – 2013



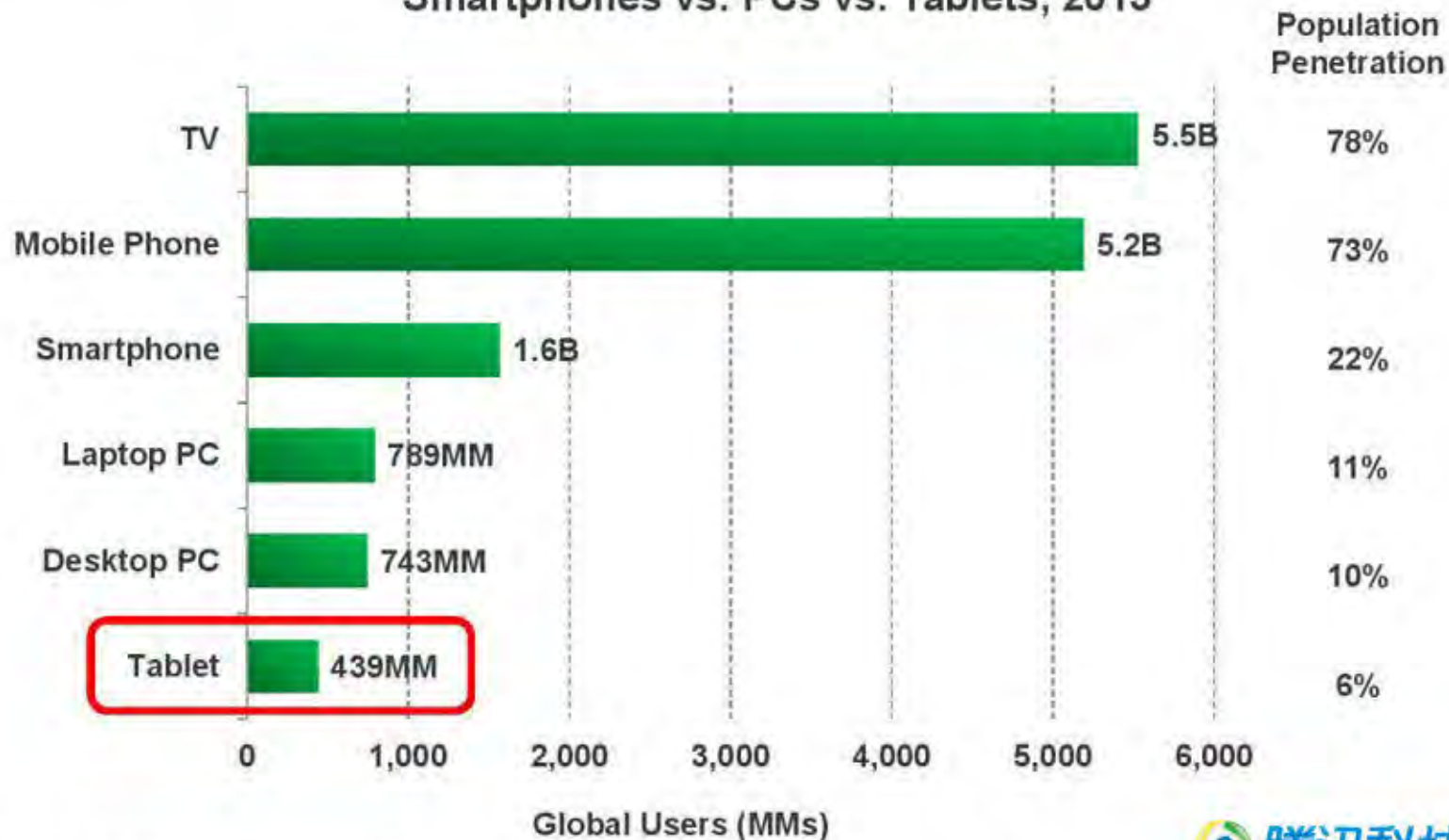
平板出货量去年增长52%，超过PC所有年份的增长率

Global PC (Desktop / Notebook) and Tablet Shipments by Quarter
Q1:95 – Q4:13



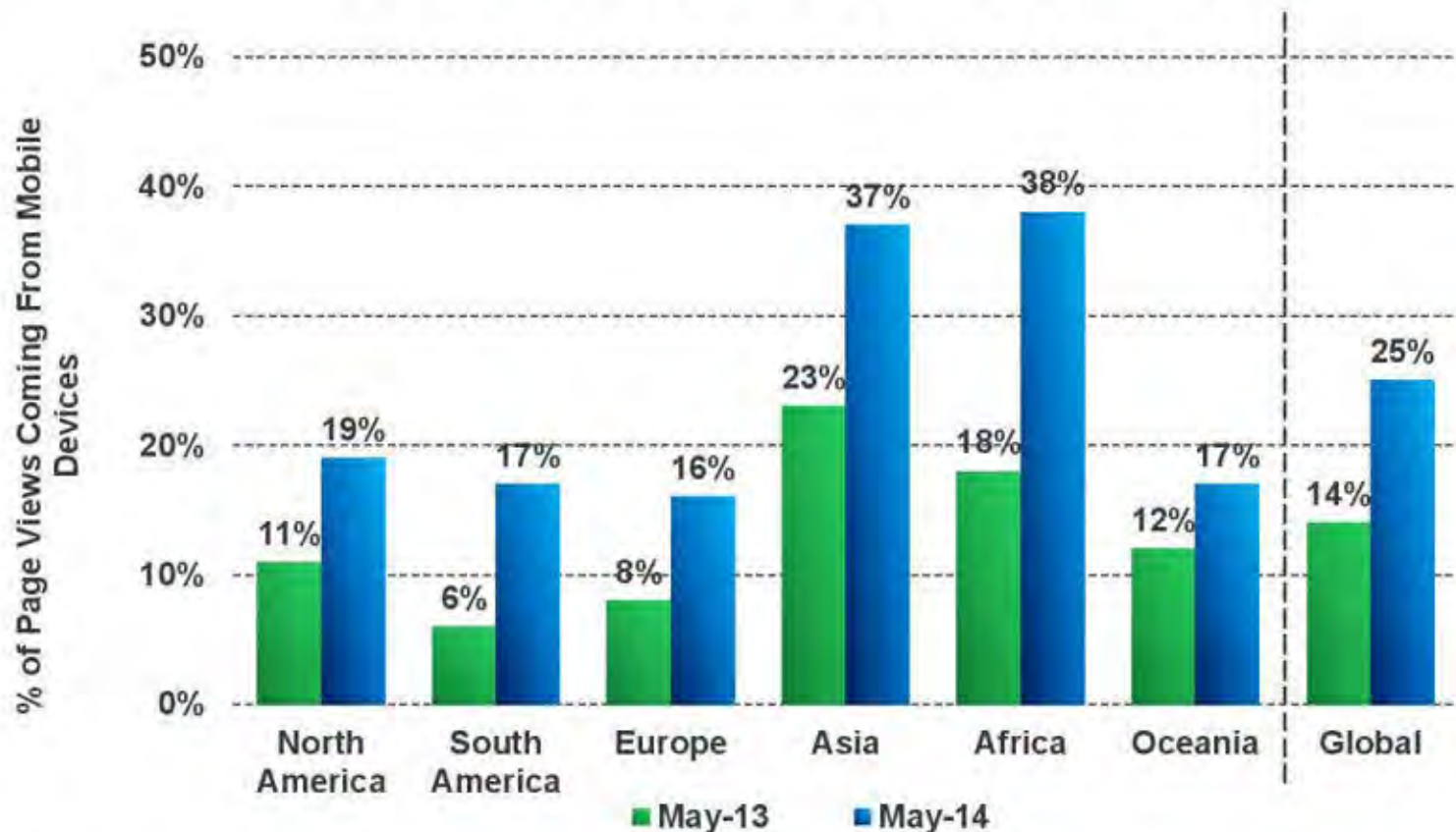
平板用户仅为笔记本的56%，智能手机的28%，
电视机的8%，还有很大增长空间

Global Users of TVs vs. Mobile Phones vs.
Smartphones vs. PCs vs. Tablets, 2013



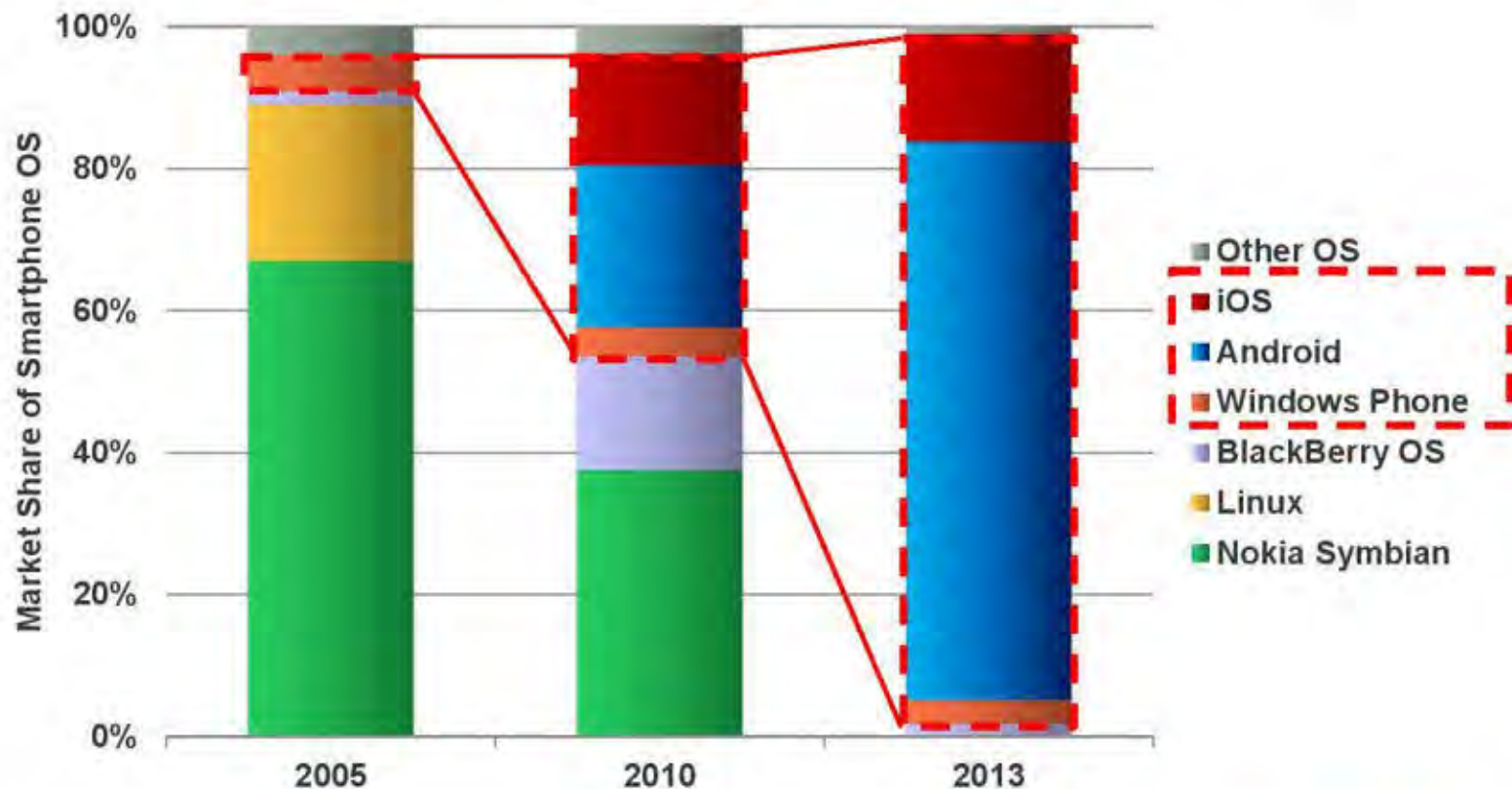
移动互联网使用量持续增长，占整体互联网的25%，
去年这一数据为14%

Mobile Usage as % of Web Usage, by Region, 5/14



“美国制造”的智能手机操作系统占全球份额97%，
8年前仅占5%

Global Smartphone Operating System Market Share
(by Units Shipped), 2005 vs. 2010 vs. 2013

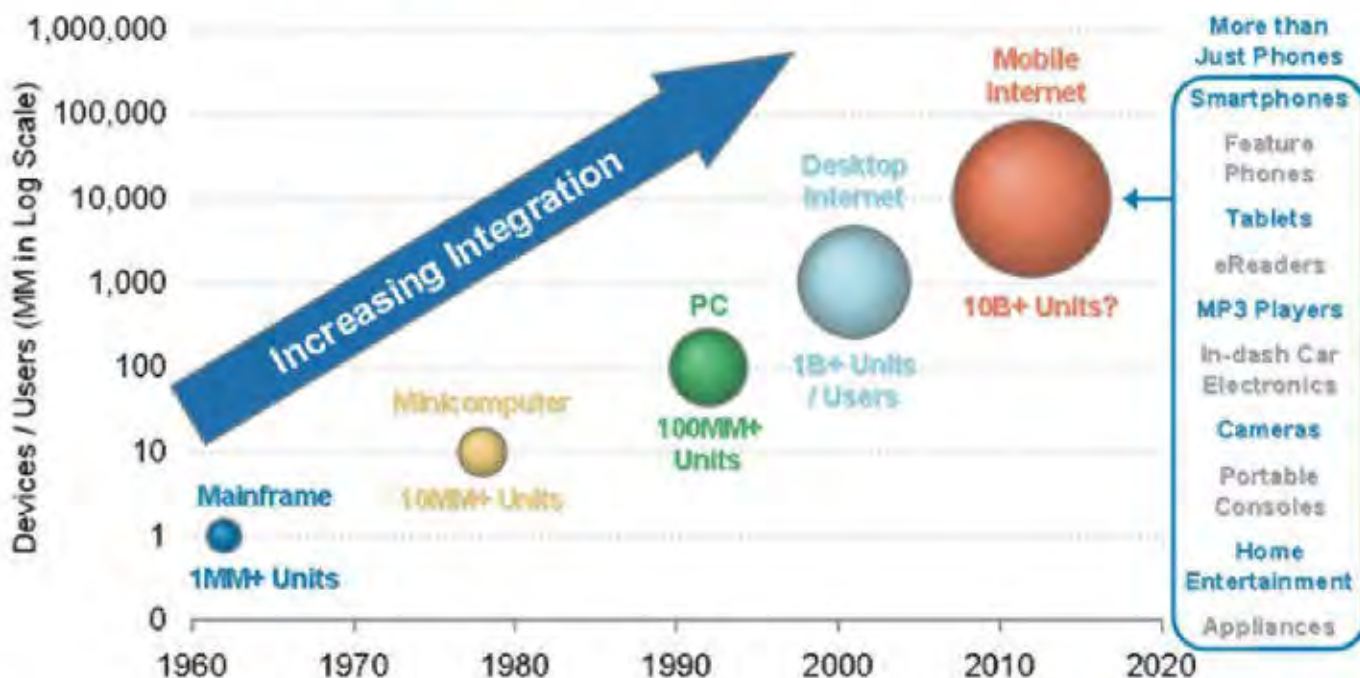


新兴计算设备的用户数比上一代大十倍，移动互联网或出现百亿以上用户

Exhibit 29

Each new computing cycle typically generates around 10x the installed base of the previous cycle

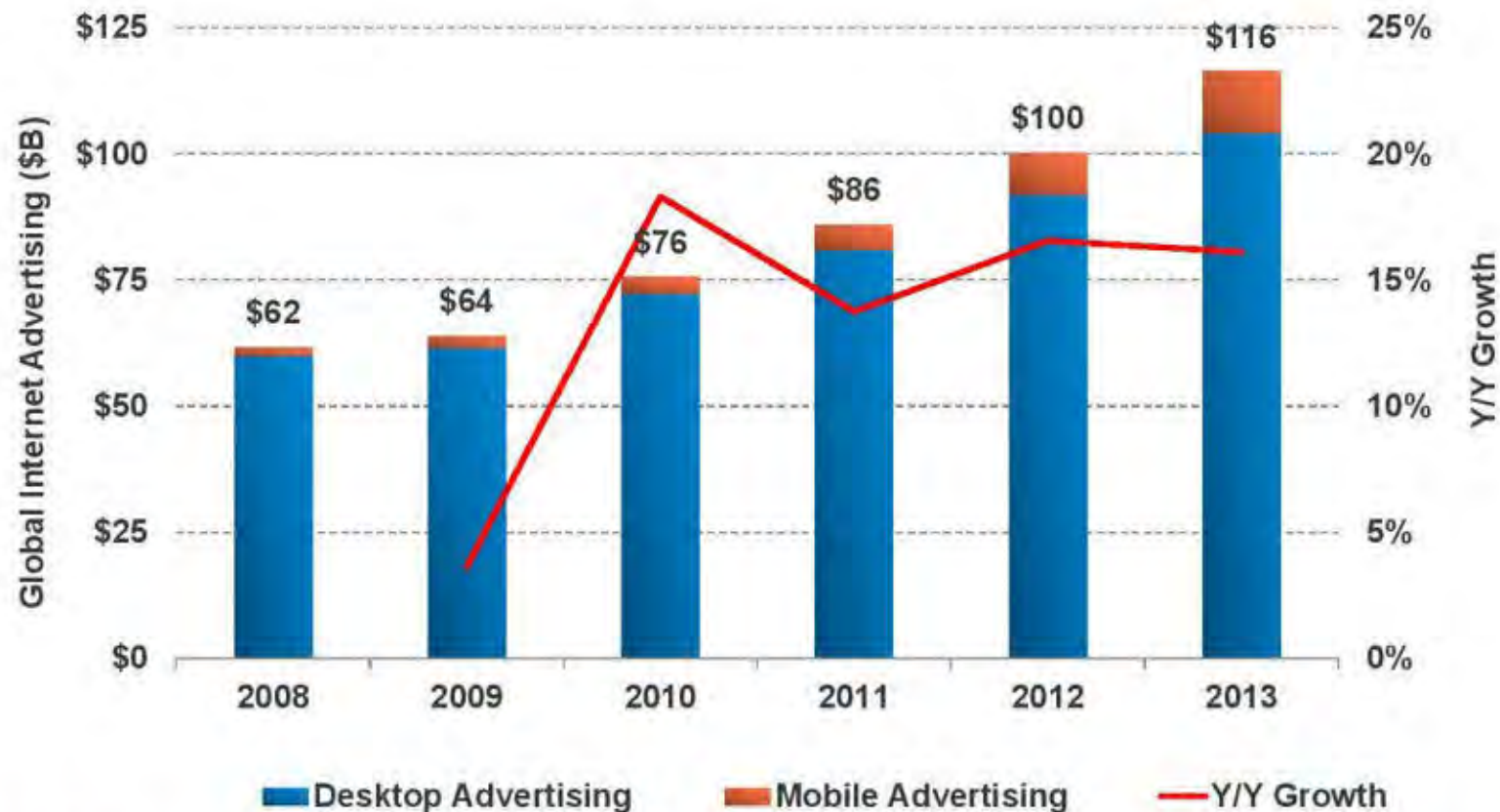
Devices or users in millions; logarithmic scale



移动互联网广告和盈利前景光明

互联网广告2013年增16%，移动广告增长47%，
在互联网广告中占比增至11%

Global Internet Advertising, 2008 – 2013



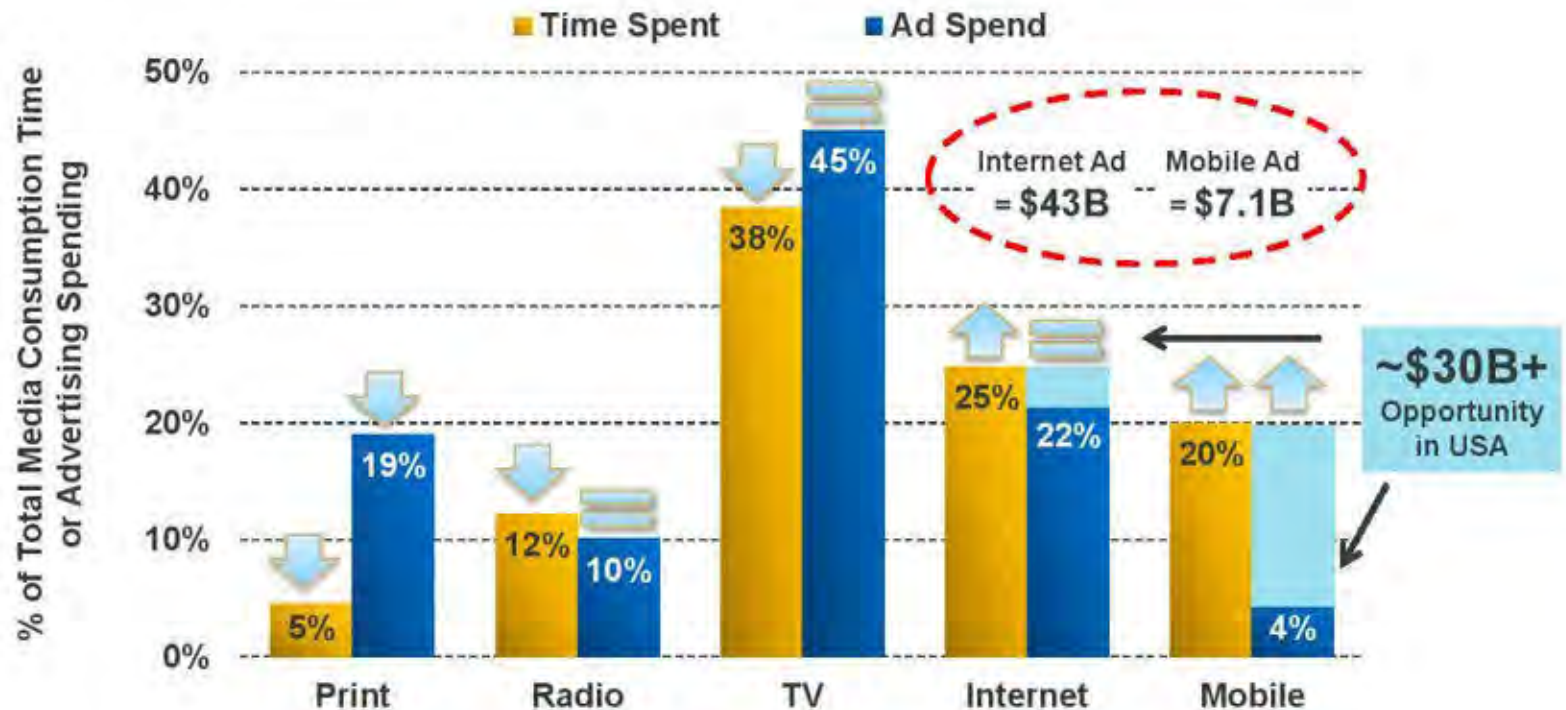
谷歌ARPU (每用户平均收入) 是Facebook的6倍, Facebook的ARPU是Twitter的两倍

Annualized Ad ARPU (\$) & Mobile % of MAU

Annualized Ad ARPU (\$)	Q1:12	Q2:12	Q3:12	Q4:12	Q1:13	Q2:13	Q3:13	Q4:13	Q1:14
Google (\$)	\$37	\$37	\$38	\$43	\$42	\$41	\$41	\$46	\$45
Y/Y Growth	9%	6%	6%	14%	14%	11%	10%	8%	8%
Facebook (\$)	\$4.00	\$4.28	\$4.43	\$5.15	\$4.60	\$5.65	\$6.14	\$7.76	\$7.24
Y/Y Growth	1%	(2%)	7%	12%	15%	32%	39%	51%	57%
Mobile % of MAU	54%	57%	60%	64%	68%	71%	74%	77%	79%
Twitter (\$)	\$1.29	\$1.50	\$1.64	\$2.15	\$1.97	\$2.22	\$2.65	\$3.65	\$3.55
Y/Y Growth	90%	134%	108%	93%	52%	48%	61%	69%	80%
Mobile % of MAU	--	--	--	--	--	75%	76%	76%	78%

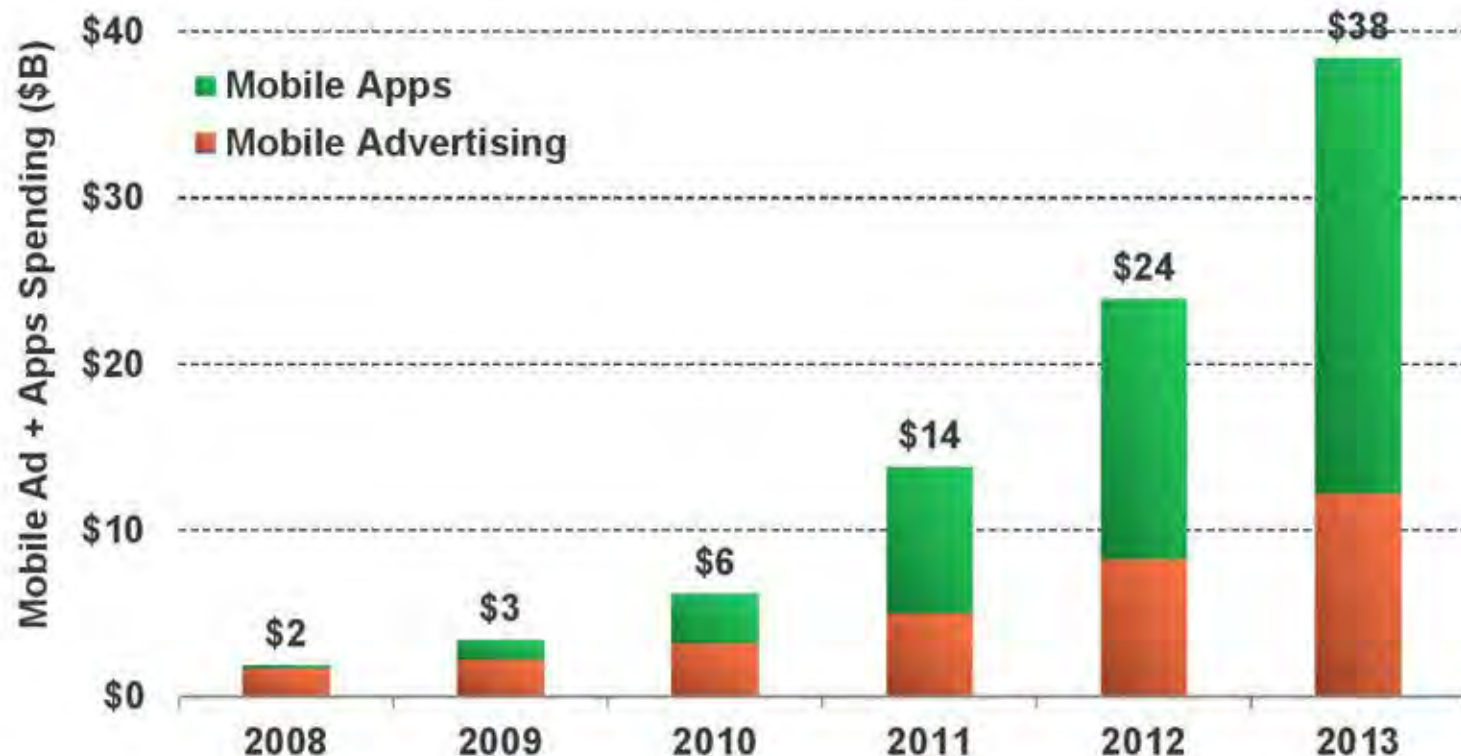
移动广告增长乐观，纸媒面临严重衰退

% of Time Spent in Media vs. % of Advertising Spending, USA 2013



移动应用营收占移动收入的68%，远高于广告

Global Mobile App + Advertising Revenue, 2008 – 2013



网络安全威胁增强

威胁网络安全的活跃组织超过300个，较2011年增4倍，
95%的网站有安全漏洞，移动平台增长，网络攻击也将相应增长

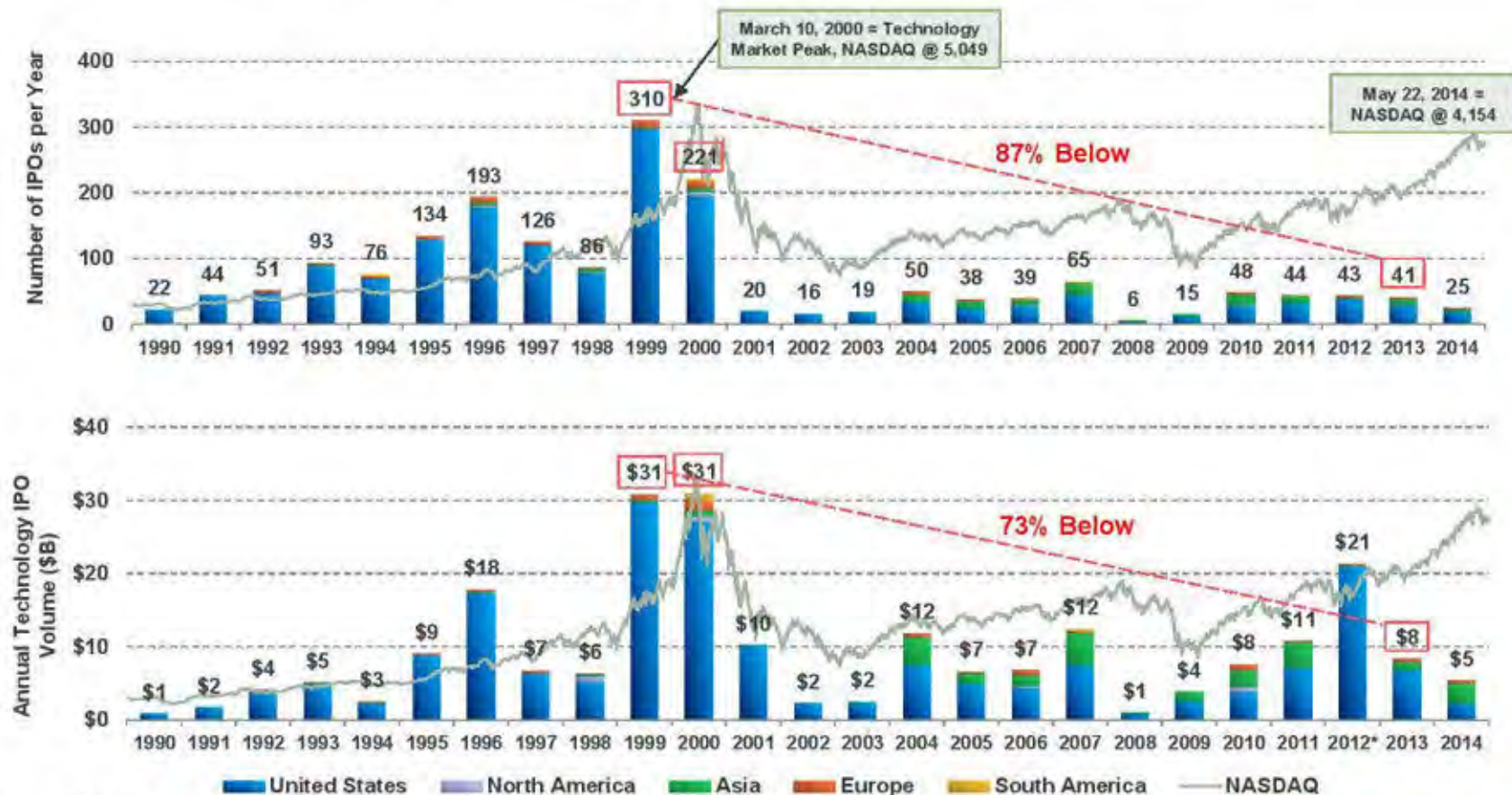
- 1) **# of Active Threat Groups Rising Rapidly =**
300 (+4x since 2011) per Mandiant tracking
- 2) **Increased Nation-State Activities***
- 3) **Vulnerable Systems Placed on Internet Compromised in**
<15 Minutes**
- 4) **+95% of Networks Compromised in Some Way**
- 5) **As Mobile Platforms Grow, Directed Attacks Will Rise**

行业状态更新-科技股/教育/医疗

科技公司被高估？
部分成立
我们来看看其中的模式

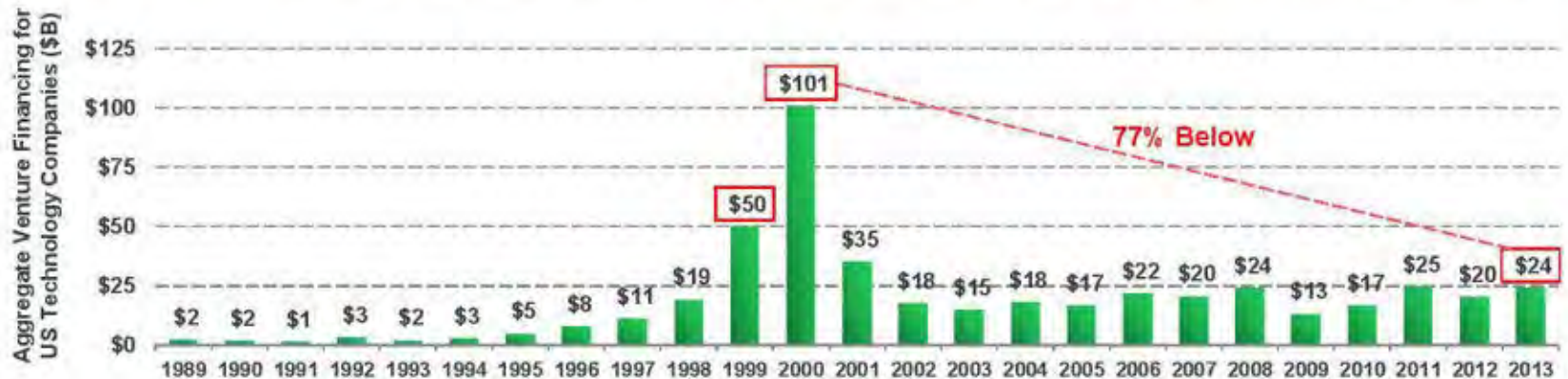
2013年科技公司IPO比1999年少73%， 纳斯达克指数比1999年低18%

Global Technology IPO Issuance, 1990 – 2014YTD



2013年风投数额比2000年历史峰值低77%

USA Technology Venture Capital Financing, 1989 – 2013



科技公司占标普500市值的19%，低于2000年的35%

Technology Company Market Value as % of S&P500, 1991 – 2014YTD



教育行业可能来到了拐点

美国教育费用昂贵，收效却不尽人意

Education is Important – Getting education right is crucial for future success

Education is Expensive

- **Secondary School Costs** – USA ranks 4th globally in expenditure per student among 34 OECD countries*
- **Higher Education Costs** – 71% of 4-year college grads = \$30K average student loan debt. All in, this \$1T+ exceeds credit card & auto loan debt

Education Results Often Subpar

- **Public Schools** – Rank 27th globally in math / 20th in science / 17th in reading
- **College Job Prep** – 1/3 of four-year college graduates feel their education did not prepare them well for employment

教育行业前景乐观：人们重视教育，个性化教育蓬勃发展，受教育渠道在增加，教育创业公司成本在下降

- **People Care About Education** – 8 in 10 Americans say education issue is extremely / very important to them
- **Personalized Education Ramping** – People learn in different ways and Internet offers many options – on own terms and at low cost – to many, with real-time feedback
- **Distribution Expanding & Education Start Up Costs Declining** – Direct to consumer / teacher allows education products to receive rapid mass adoption productization / distribution costs falling

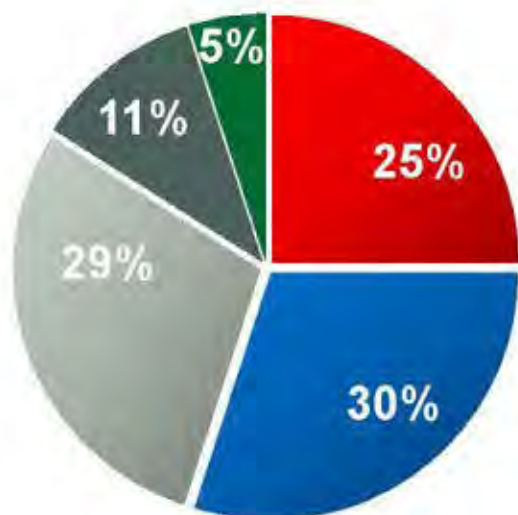
美国高中毕业率增加，更多人在接受简单有趣的外语教育，师生与家长用短信频繁沟通，在线教育渠道帮助人们获取更多教育机会

- **Graduation Rates Rising** – 81% of high school freshman graduated in 2012, up from 74% five years ago
- **Language Learning Easier / Fun** – 25MM+ people (+14x Y/Y) use Duolingo app to learn new language
- **Communication Easier** – 12MM+ teachers / students / parents (+15x Y/Y) use Remind101 to send 500MM+ messages
- **Behavior Feedback Easier** – 35MM+ teachers / students / parents using ClassDojo to help improve student behavior through real-time feedback
- **Online Courses Can Help Learning Process (for Teachers + Students)**
 - 430MM+ views (+69% Y/Y) on Khan Academy YouTube channel, 10MM MAUs
 - 65MM+ courses (+59% Y/Y) from iTunes U Open University downloaded
 - 7MM+ students (+ >2x Y/Y) enrolled in Coursera courses

在线教育在全球发展

Duolingo (25MM Users)

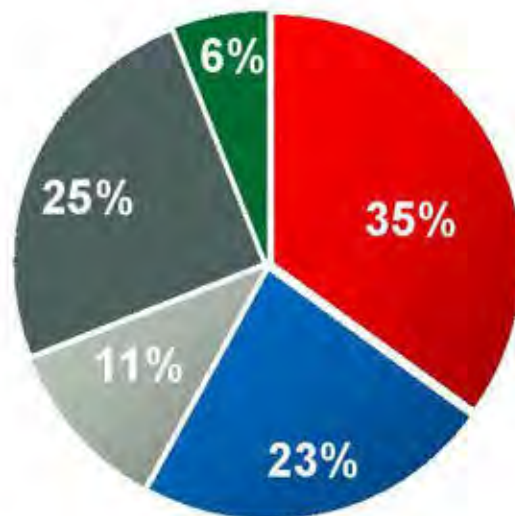
Traffic Distribution, 4/14



■ North America ■ Europe
■ Latin America ■ Asia
■ Africa / Oceania

Coursera (7MM Users)

Student Distribution, 3/14



■ North America ■ Europe
■ Latin America ■ Asia
■ Africa / Oceania

医疗健康业或面临拐点

美国医疗费用占GDP的17%，其中27%的费用被浪费，雇员的医疗负担很重，个人医疗费用增长迅速，大部分疾病由不健康的生活方式引起

- **Costs Up to 17% of GDP** – @ \$2.8T in 2012, +2x as percent of GDP in 35 years
- **Waste = 27% of Spend** – \$765B of healthcare spend estimated from excess costs: \$210B = unnecessary services; \$190B = excess administrative; \$55B = missed prevention opportunities; \$310B = inefficient delivery of care / fraud / inflated prices (2009)
- **Employers Carry Big Burden** – \$620B spend by employers for 150MM Americans (2014E) costs up 28% vs. 5 years ago 67% CFOs indicate healthcare costs = leading economic concern
- **Individual Costs Rising** – >25% of family income likely to go to healthcare spending in 2015E vs. 18% in 2005...top 5% healthcare consumers (most with multiple chronic illnesses) spent 50% of healthcare dollars (2009) >50% of personal bankruptcies driven by healthcare costs
- **Chronic Conditions = +75% of Spend** – Most costly = cancer / diabetes / heart disease / hypertension / stroke 1 in 2 Americans has at least 1 chronic condition, 1 in 4 has 2+ 32% of Americans obese in 2008, up from 15% in 1990
- **Behavior = Root Cause of Many Health Problems** – Health risk behaviors cause chronic diseases. 52% of adults did not meet recommendations of physical activity (2011) 50% of those with chronic conditions not compliant with taking medicine to manage disease = \$100B on avoidable hospitalizations (2010)

数字技术将改变落后的医疗系统，政府正在推进医疗领域的技术革新，大部分人希望用网络寻找好的医生和医院，医疗行业消费化不可避免

- **Digital Technology Enables Change** – Healthcare system has relied on antiquated systems
- **Government Enabled Change Pushes Technology**
 - *HITECH Act* – \$35B administered by Office of the National Coordinator for Electronic Health Records (EHR) + health information technology in 2013 penalties exist for non-compliance
 - *Affordable Care Act* – Coverage expansion in works
- **Consumerization of Healthcare** – Majority (52%) of consumers want to access tools / websites rankings for quality / satisfaction / patients reviews of doctors + hospitals

医疗行业正在数字化，人们在追求医疗服务的质量，病人使用互联网技术参与疾病管理收效显著

- **Digitization of Healthcare Happening**

- *Providers Using Fully Functioning EHR* – 84% of Hospitals / Academic / Institutional practices 51% (& rising) of office-based practices
- *Consumers Happy to Communicate via Email* – 62% for healthcare concerns
- *Digital Health Venture Investments Rising* – +39% Y/Y to \$1.9B (2013, USA)

- **Quality Over Quantity Incentives Being Implemented**

- *Payers Incentivized to Engage Patients / Improve Care / Outcomes / Reduce Costs*
- *Providers Shifting to Value-Based from Fee-for-Service Payments*
- *Employers Lowering Costs by Offering Services to Improve Engagement / Choices / Care* – 46% of employers will enact participatory / outcomes based incentives (like weight loss / cholesterol levels) By 2015, 60% will offer price transparency tools from health plans

- **Patient Engagement Rising & Yielding Results**

- *Redbrick Health* – employer engagement platform = 4:1 ROI savings per participant
- *Teladoc* – employer focused telemedicine platform = \$798 savings per consultation vs. office visit & ER over 30 days
- *Mango Health* – adherence app = 84% Statin adherence vs. 52% market average
- *WellDoc* – chronic disease platform = diabetes app prescription with reimbursement

重塑 (Re-imagining)
正在继续发生

重塑 消息与通信应用

Yammer CEO在Twitter上说，WhatsApp和Secret代表了电话簿，优于好友图谱，这就是未来。



David Sacks

@DavidSacks

Both WhatsApp and Secret represent the ascendancy of the phone book over the friend graph. It's back to the future.

↩ Reply ↻ Retweet ★ Favorite ... More

3:17 PM - 19 Feb 2014

全球OTT消息服务在5年内积累超过10亿用户

Global Messaging Ecosystem – Select Players, 2013



WhatsApp (USA), 4+ Years

MAUs = **400MM**, +100% Y/Y

Messages / Day = **50B**, +178% Y/Y



Tencent WeChat (China),
3+ Years

MAUs = **355MM**, +125% Y/Y



Line (Japan), 2+ Years

MAUs = **280MM**

Messages / Day = **10B**

Revenue = **\$388MM**, +5x Y/Y (Q4:13)



KakaoTalk (Korea), 3+ Years

Messages / Day = **5.2B**, +24% Y/Y

Revenue = **\$203MM**, +4x Y/Y



Snapchat (USA), 2+ Years

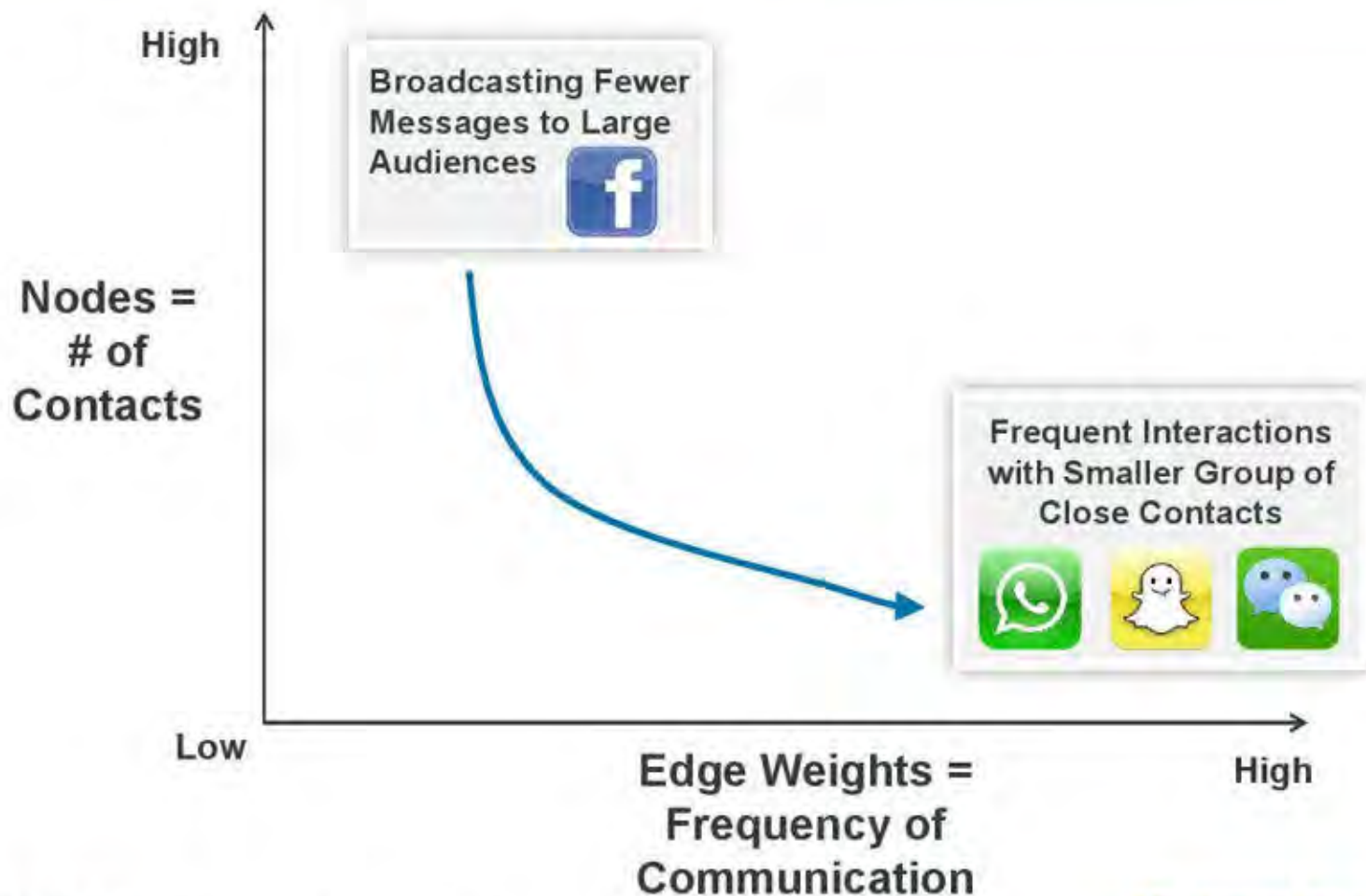
Messages / Day = **1.2B**



Viber (Israel), 3+ Years

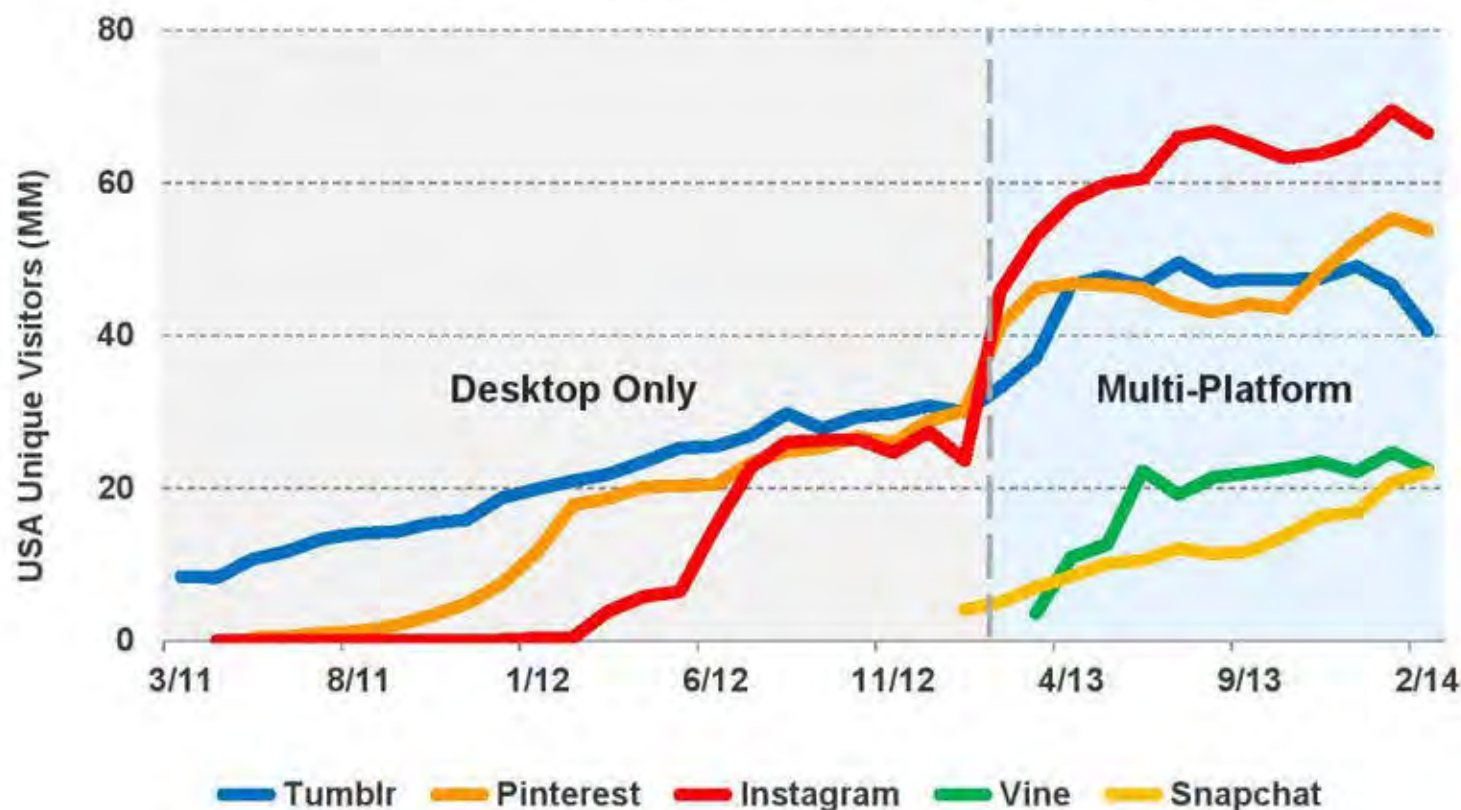
MAUs = **100MM**

消息应用的进化：高频率沟通优于多联络人沟通



通讯的进化：图片和视频共享猛增

'Visual Web' Social Networks: Unique Visitors Trend, USA, 3/11 – 2/14



重塑 APP

App进化路线：功能细分， 从多功能网页应用到多功能移动应用到单功能移动应用

First, multi-purpose web apps



then, multi-purpose mobile apps



now, single-purpose = 'there's an app for that'



隐形应用崛起，有些应用你平时不用打开，它们与传感器、地点和使用历史互动，只在必要时通知你打开

now some apps are disappearing altogether



Foursquare Swarm



Runkeeper Breeze



Dark Sky



WUT

We're entering the age of apps as service layers.

These are apps you have on your phone but only open when you know they explicitly have something to say to you.

They aren't for 'idle browsing,' they're purpose-built & informed by contextual signals like hardware sensors, location, history of use & predictive computation.

— Matthew Panzarino, *TechCrunch*, 5/15/14

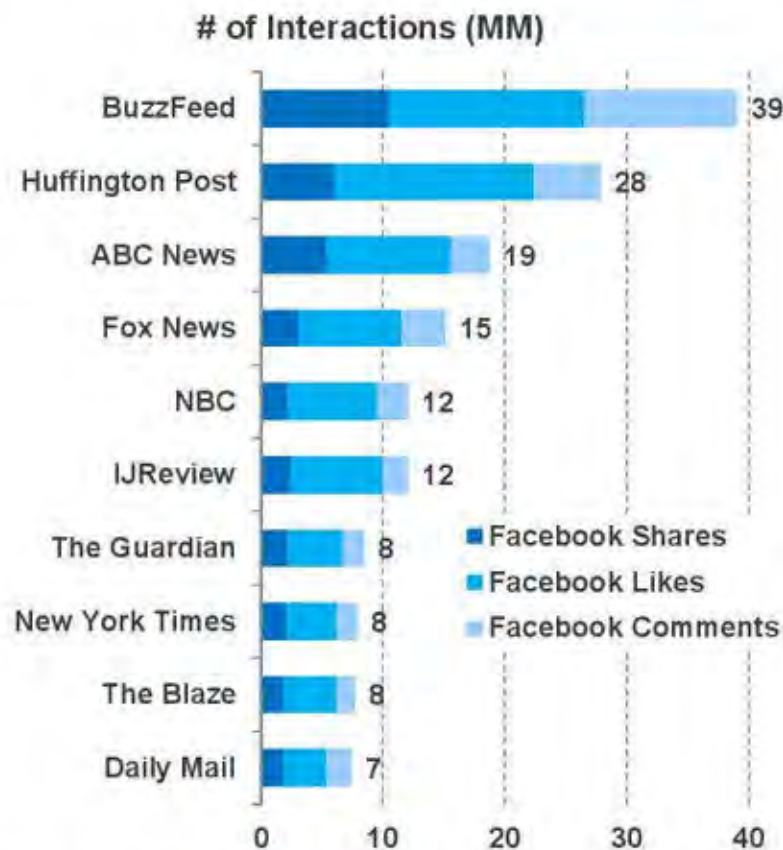
重塑 发行渠道与内容

Facebook、Pinterest和Twitter是社交渠道领导者， 它们的传播速度非常快

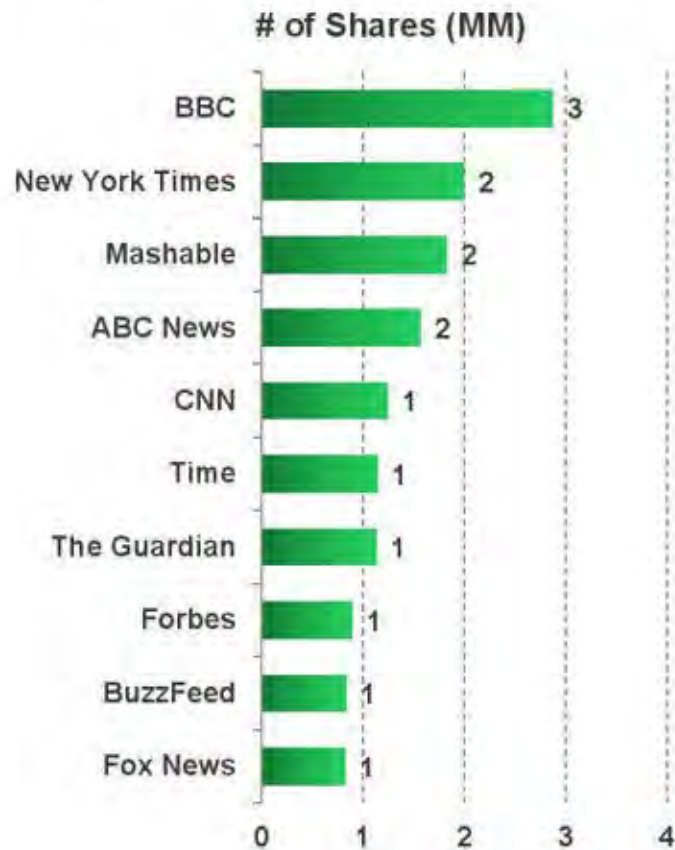
- **Social Media Traffic Referral Leaders =**
Facebook / Pinterest / Twitter with estimated
21%, 7%, 1% of global referrals, per
Shareaholic, 3/14.
- **Social Distribution Happens Quickly =**
Average article reaches *half* total social referrals
in 6.5 hours on Twitter, 9 hours on Facebook,
per SimpleReach, 5/14.

BuzzFeed、Huffinton Post和ABC是社会化新闻内容领导者

Top Facebook News Publishers, 4/14



Top Twitter News Publishers, 4/14



重塑：内容+内容传播= BuzzFeed/测试/答疑/突发新闻/视频/移动

BuzzFeed

130MM+ Unique Visitors +3x Y/Y (5/14)
>50% Mobile, >75% Social, >50% age 18-34



15 Things You Didn't Know
Your iPhone Could Do
17MM+ views



What State Do You Actually
Belong In?
40MM+ views



Why I Bought A House In
Detroit For \$500
1.5MM+ views



Photoshopping Real Women
Into Cover Models
13MM+ video views

重塑 日常活动

Tinder重塑人们的约会方式

~70K Bars /
Nightclubs, USA



Tinder

800MM Swipes per day, +21x Y/Y
11MM Matches per day, +21x Y/Y



重塑本地服务与商誉提升了效率



6MM Guest Stays
550K Listings, +83% Y/Y

11x Ratio Guest Stays / Listings



231MM Buyers, +44% Y/Y
8MM Sellers

29x Ratio
\$31K / Year Avg to Alibaba's China
Retail Marketplace Sellers



39MM Meal Orders, +74% Y/Y
29K Restaurants, +3X Y/Y

1,367x Ratio
\$35K / Year Avg to Restaurants

重塑超市购物，47%在线购物已为免费送货， 5年前这一比例仅为35%，当日送达会成为颠覆性服务

>47% of Online Transactions Use 'Free-Shipping,' vs. 35% Five Years Ago
Same-Day Local Delivery = Next Big Thing



Instacart

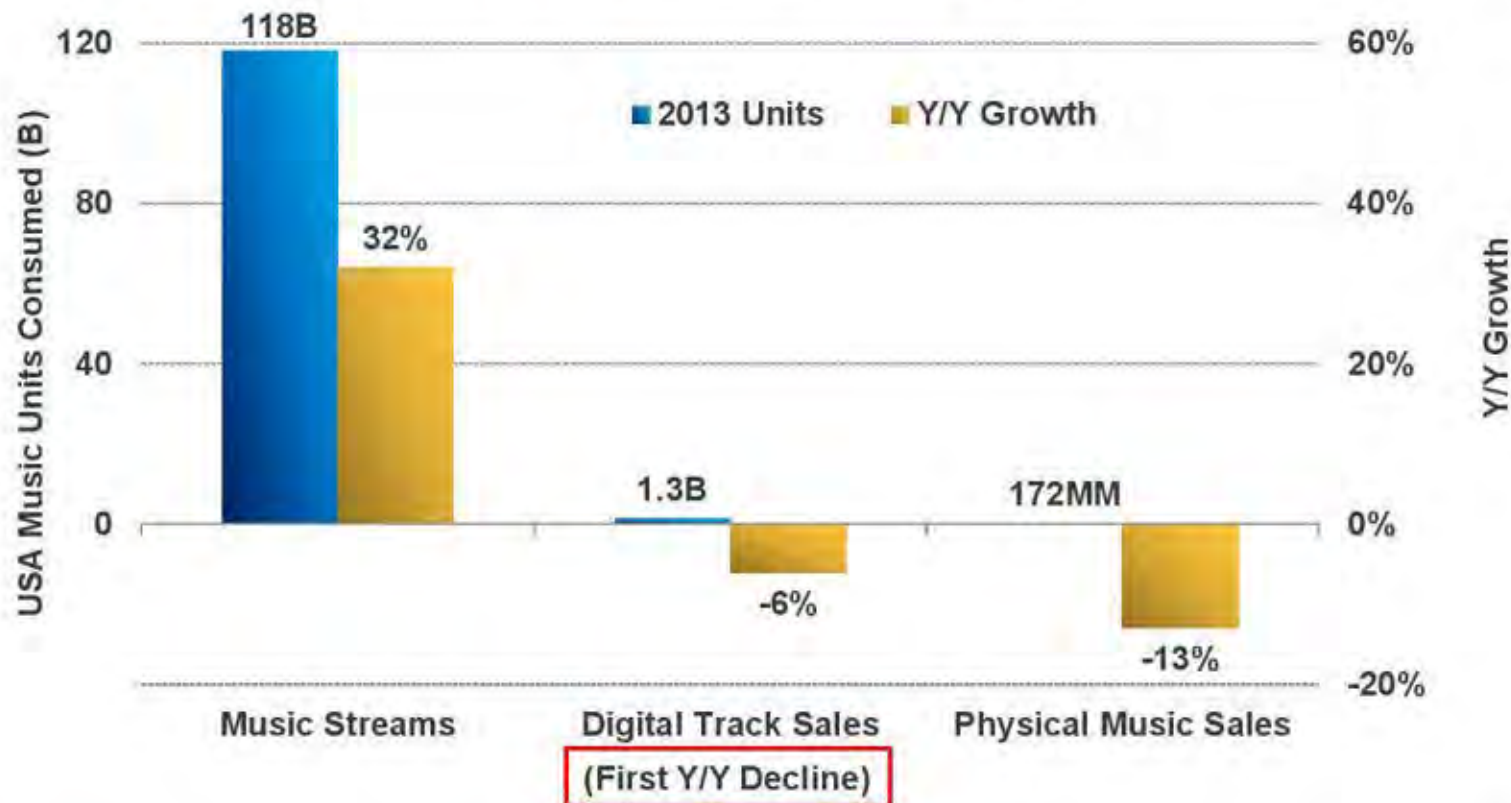


Amazon Fresh



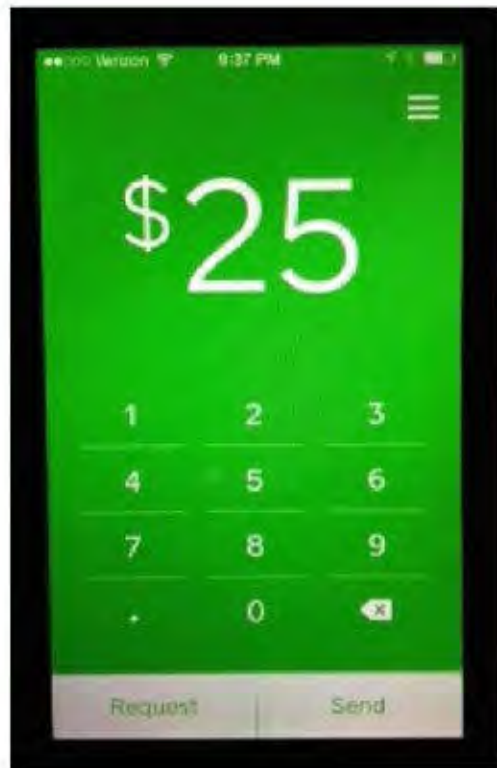
重塑媒体（音乐）消费，流媒体去年增长32%，
数字音乐购买下降6%。

USA Music Consumption, 2013



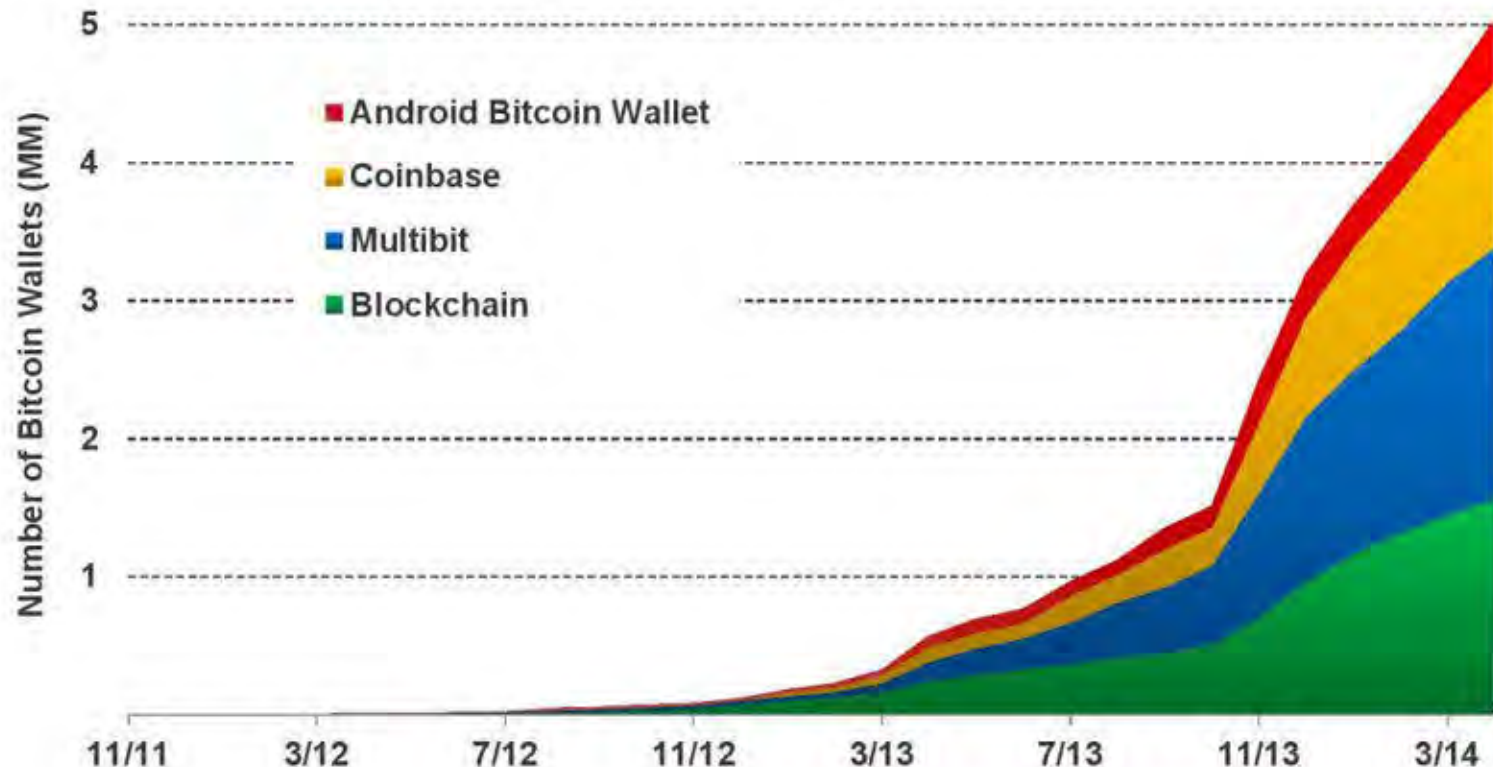
重塑 货币

重塑货币



500万个比特币钱包这一事实证明了 消费者对互联网货币的极大兴趣

Number of Bitcoin Wallets by Wallet Provider, 4/14



重塑 一个垂直产业

互联网的三大核心=内容+社区+商务

1) 内容：

由消费者提供

2) 社区：

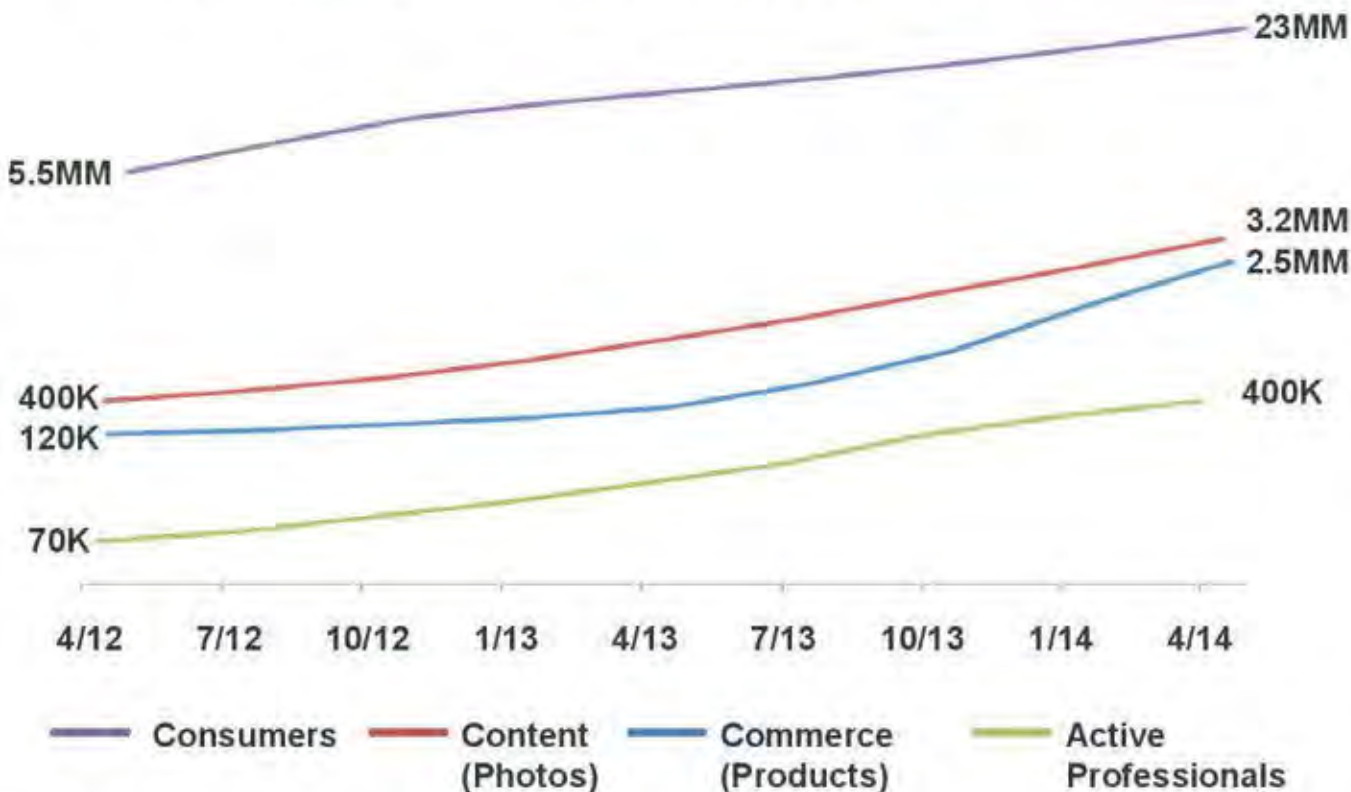
由用户创建的相关性和关联性，同时服务于用户

3) 商务：

商品购买

互联网的三大核心=内容+社区+商务

Houzz – Content (Photos) / Community (Professionals + Consumers) / Commerce (Products), 4/12 – 4/14



Houzz=家庭装修与设计生态系统

Content



Inspiration - Photos

~3MM (+230% Y/Y)
World's largest photo
database



Editorial - Guides / Articles

10K (+143%)
'Wikipedia' of home
design



Community



Services - Professionals

400K (+198%)
Portfolios &
reviews



Discussions

800K (+225%)
Pro & homeowner
support / advice



Products

2.5MM (+590%)
Discover &
purchase



最大的重塑=
移动设备+
上传大量可查找、可共享数据的传感器

更多数据+更多透明=更多模式和更加复杂

透明：

即时共享/许多事物之间的通信可能让世界更美好/
安全场所(但可能影响个人隐私)仍将是一个挑战。

模式：

挖掘日益增多的数据可能形成某些模式，
帮助解决一些基本/之前尚未解决的问题，
但可能带来个人权利相关的新挑战。

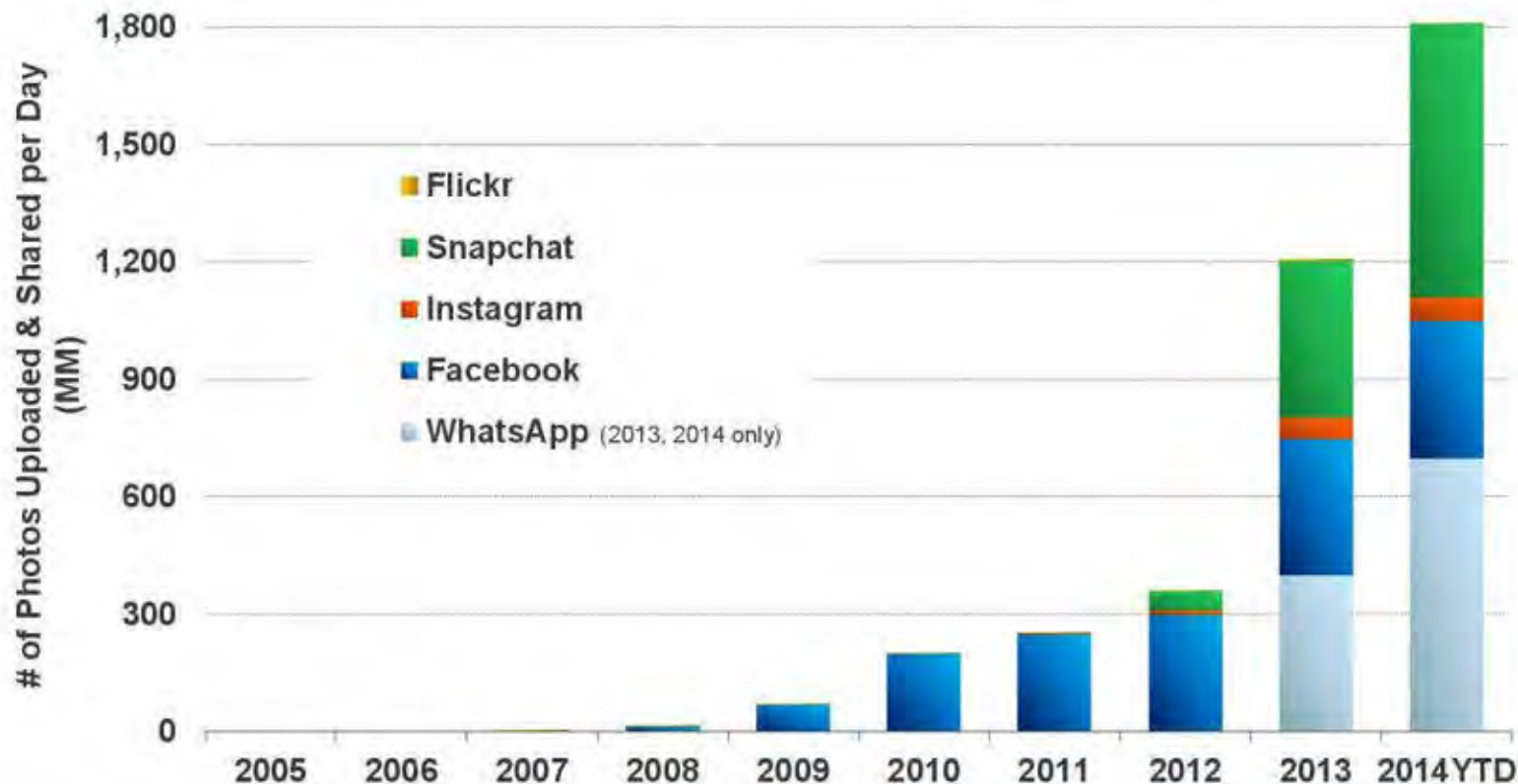
大数据趋势

- 1) 可上传/可查找/可共享/实时数据增长迅速
- 2) 传感器的使用迅速普及
- 3) 处理成本迅速下滑，云计算崛起
- 4) 美观的新用户界面有助于让数据更易用/实用
- 5) 数据挖掘/分析工具帮助寻找模式
- 6) 数据的早期出现/基于模式问题的解决

可上传/可查找/可共享/实时数据增长迅速

图片=每天上传和共享18亿张

Daily Number of Photos Uploaded & Shared on Select Platforms,
2005 – 2014YTD



可上传/可查找/可共享——Mojo更新

Pinterest

- 750MM+ cumulative Boards (4/14)
- 30B+ cumulative Pins
- +50% Pin growth vs. 10/13



IMGUR

- 130MM MAUs (3/14)
- 3B page views per month
- 1.5MM images uploaded & 1.3B images viewed per day



Fitbit

- 47B → 2.4T steps (2011 → 2013)... Distance = Earth to Saturn



MyFitnessPal

- 65MM registered users (+50% Y/Y, 5/14)
- 100MM+ pounds lost by users since inception



Eventbrite

- \$1B gross ticket sales in 2013 (+60% Y/Y)
- 58MM tickets sold (+61% Y/Y)
- 1MM events in 187 countries



Github

- 13MM repositories in 2013 (+100% Y/Y)
- 10K users added per weekday



可上传/可共享/不可查找——Mojo更新

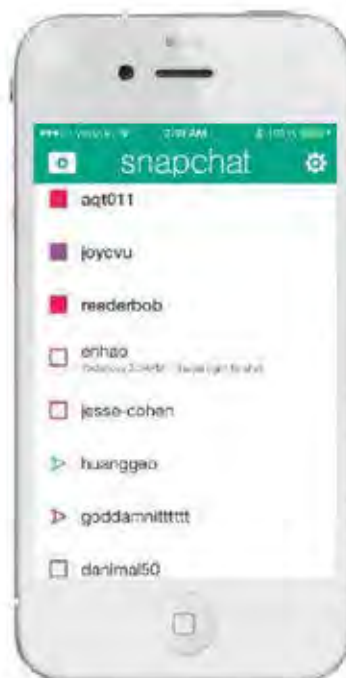
WhatsApp

- 50B messages sent per day (2/14)
- 700MM photos per day (4/14)
- 100MM videos per day



Snapchat

- 700MM+ snaps shared per day (4/14)
- 500MM stories viewed per day



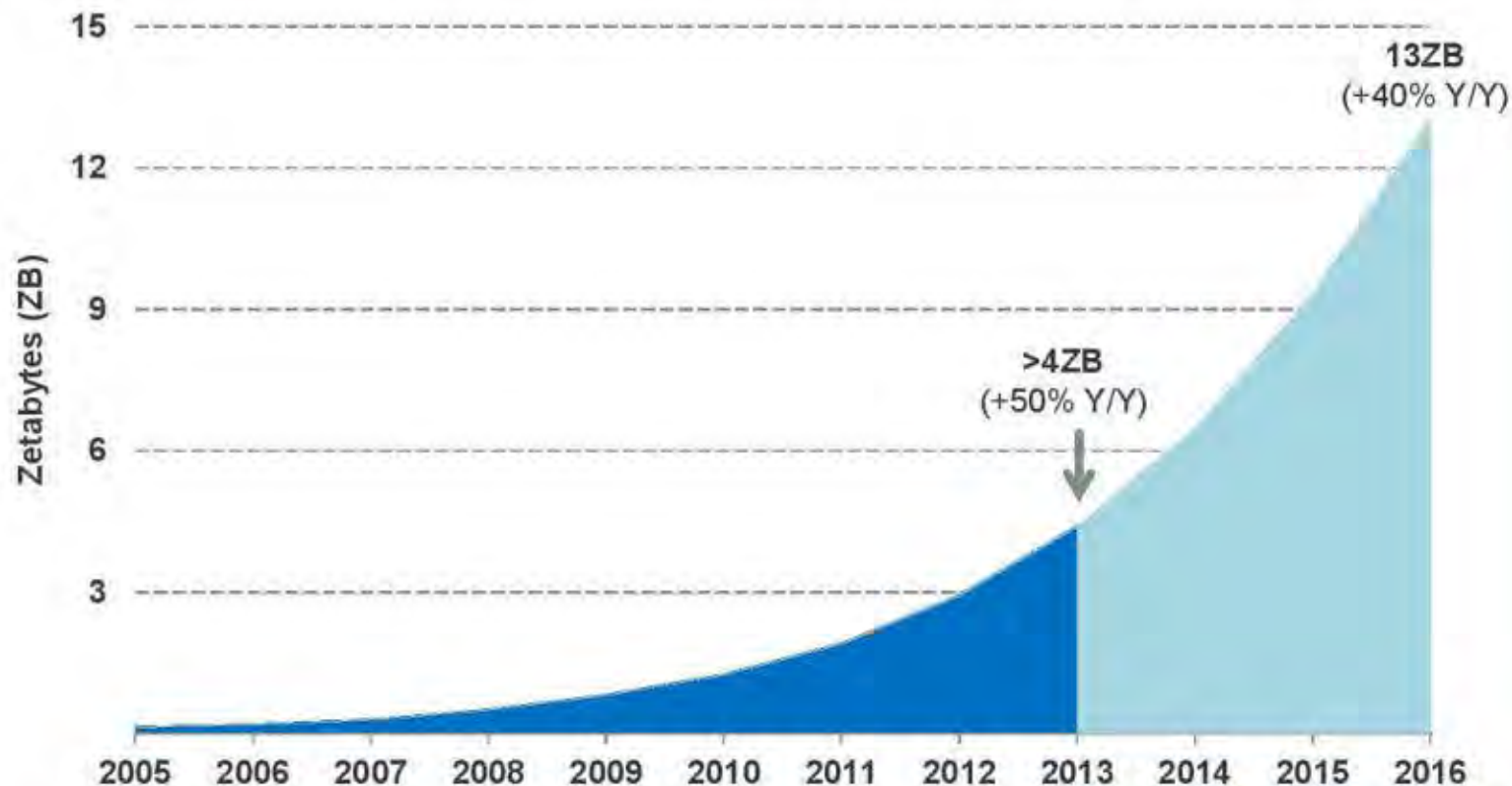
Tinder

- 800MM swipes per day (+21x Y/Y, 5/14)
- 11MM matches per day (+21x Y/Y)



数字通用信息增长强劲：2/3数字通用内容由消费者创建和消费，主要为视频、社交媒体和图片共享

2/3rd's of Digital Universe Content = Consumed / Created by Consumers
Video Watching, Social Media Usage, Image Sharing



传感器的使用迅速普及

传感器应用越来越广泛，增长迅速

Apple

iPhone (2007)
3 Sensors



iPhone 5s (2013)
5 Sensors



- Accelerometer / proximity / ambient light

- 3-axis gyro / fingerprint / accelerometer / proximity / ambient light

Samsung

Galaxy S (2010)
3 Sensors



Galaxy S5 (2014)
10 Sensors

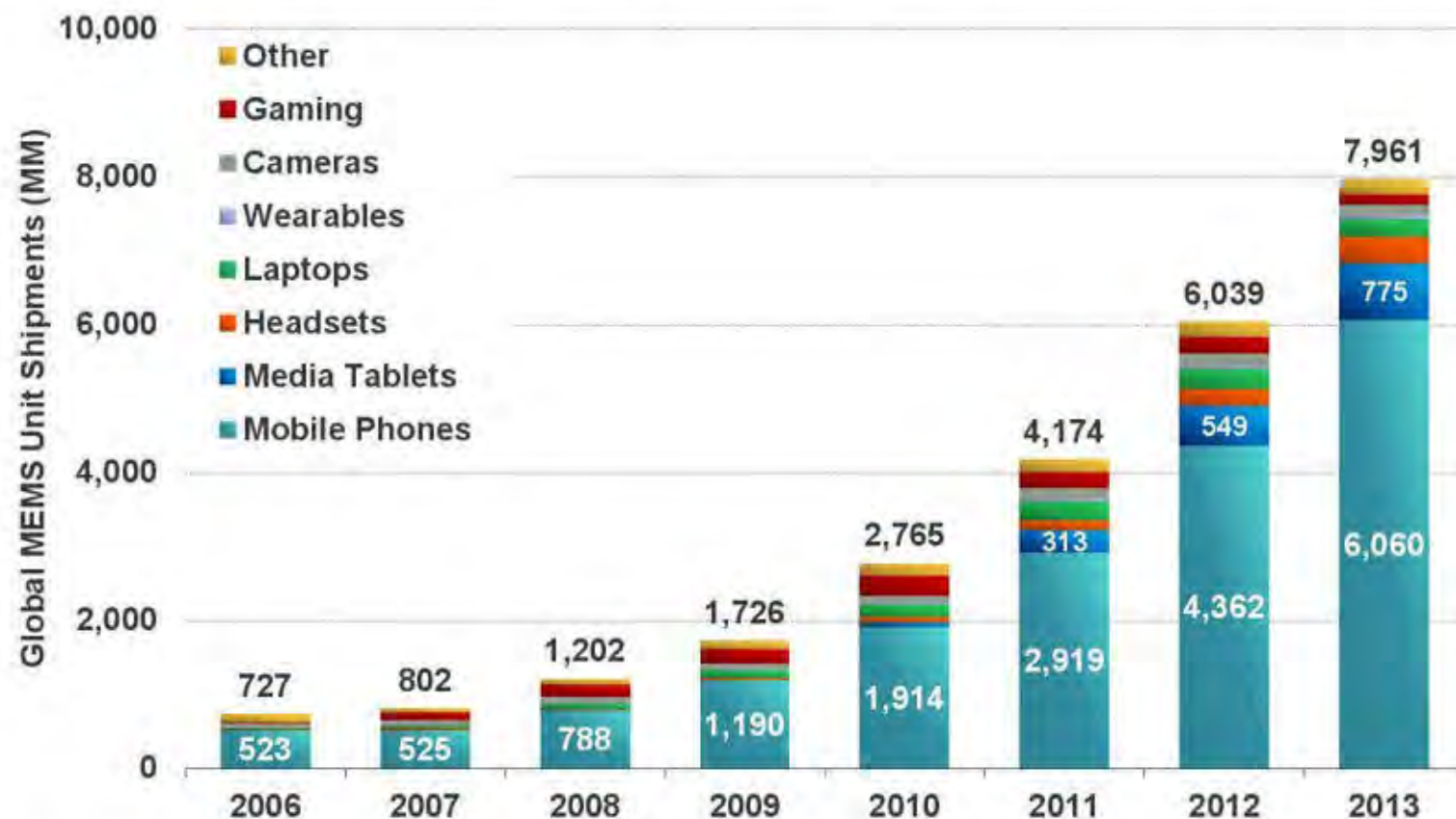


- Accelerometer / proximity / compass

- Gyro / fingerprint / barometer / hall (recognizes whether cover is open/closed) / RGB ambient light / gesture / heart rate / accelerometer / proximity / compass

去年全球消费电子设备使用的MEMS传感器出货量达到80亿部，同比增长32%

Global MEMS Unit Shipments by Consumer Electronics Device, 2006 – 2013

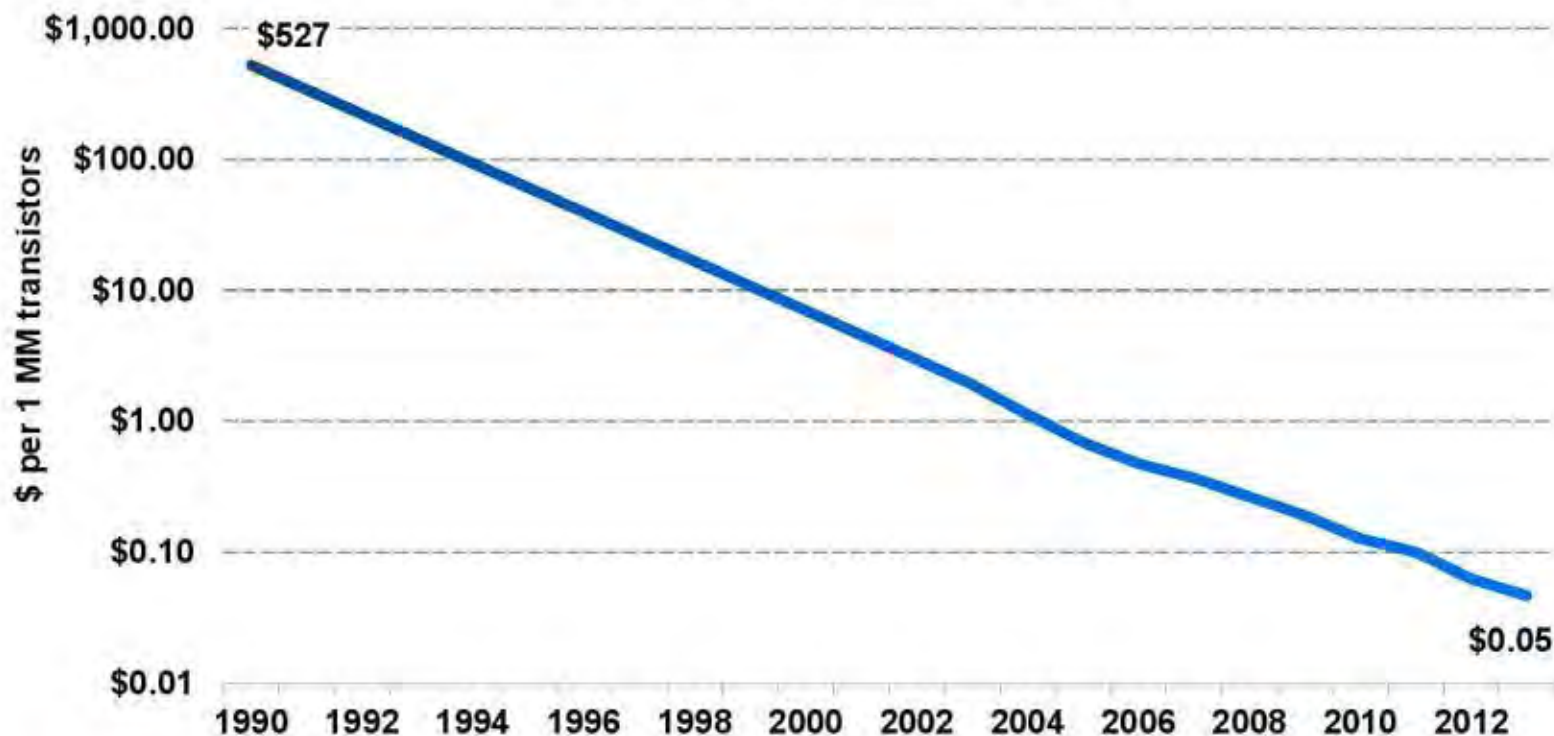


处理成本迅速下滑，云计算同时兴起

计算成本下滑：1990年至2013年间平均年每年下滑33%

*Decreasing cost / performance curve enables
computational power @ core of digital infrastructure*

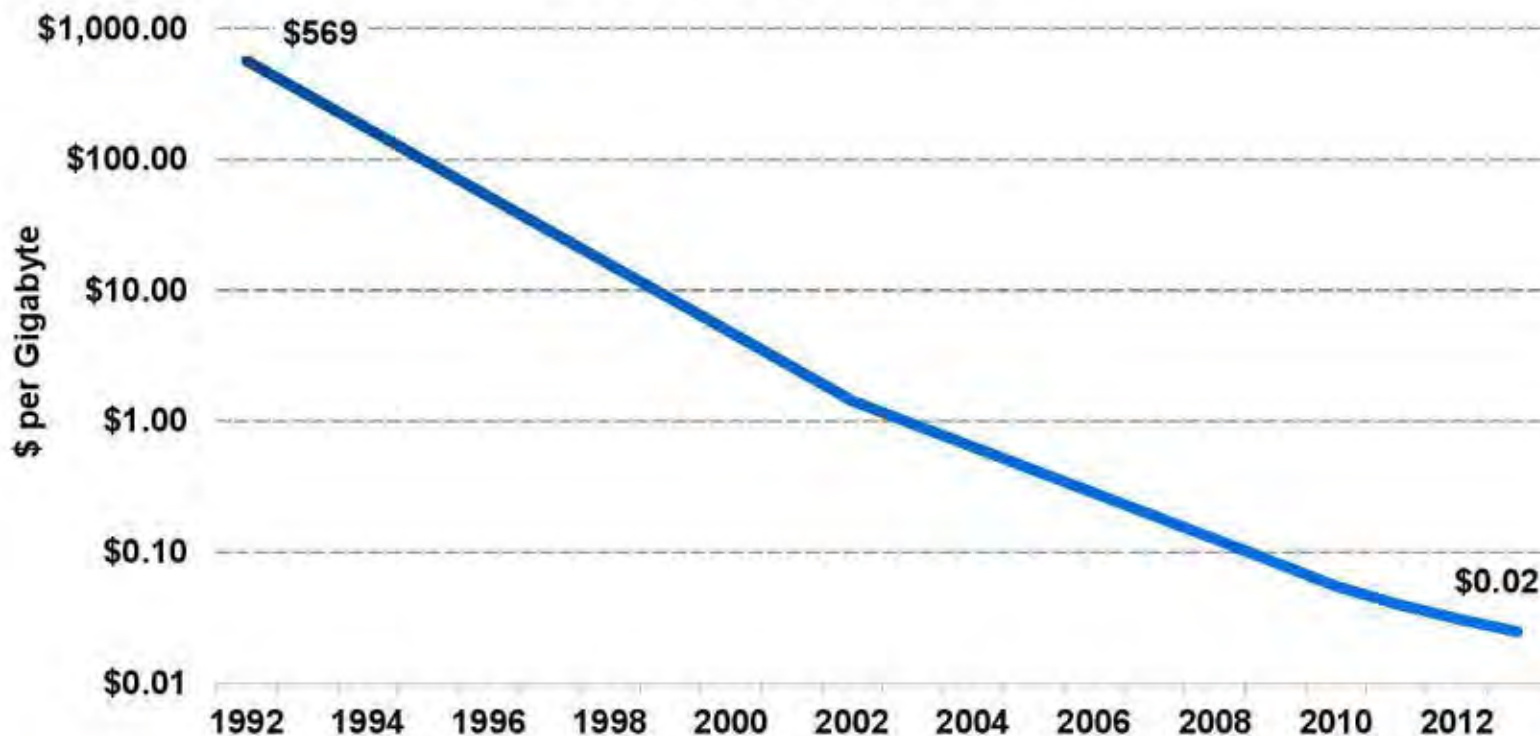
Global Compute Cost Trends



存储成本下滑：1990年至2013年间平均年每年下滑38%

*Decreasing cost / performance of digital storage enables
creation of more / richer digital information*

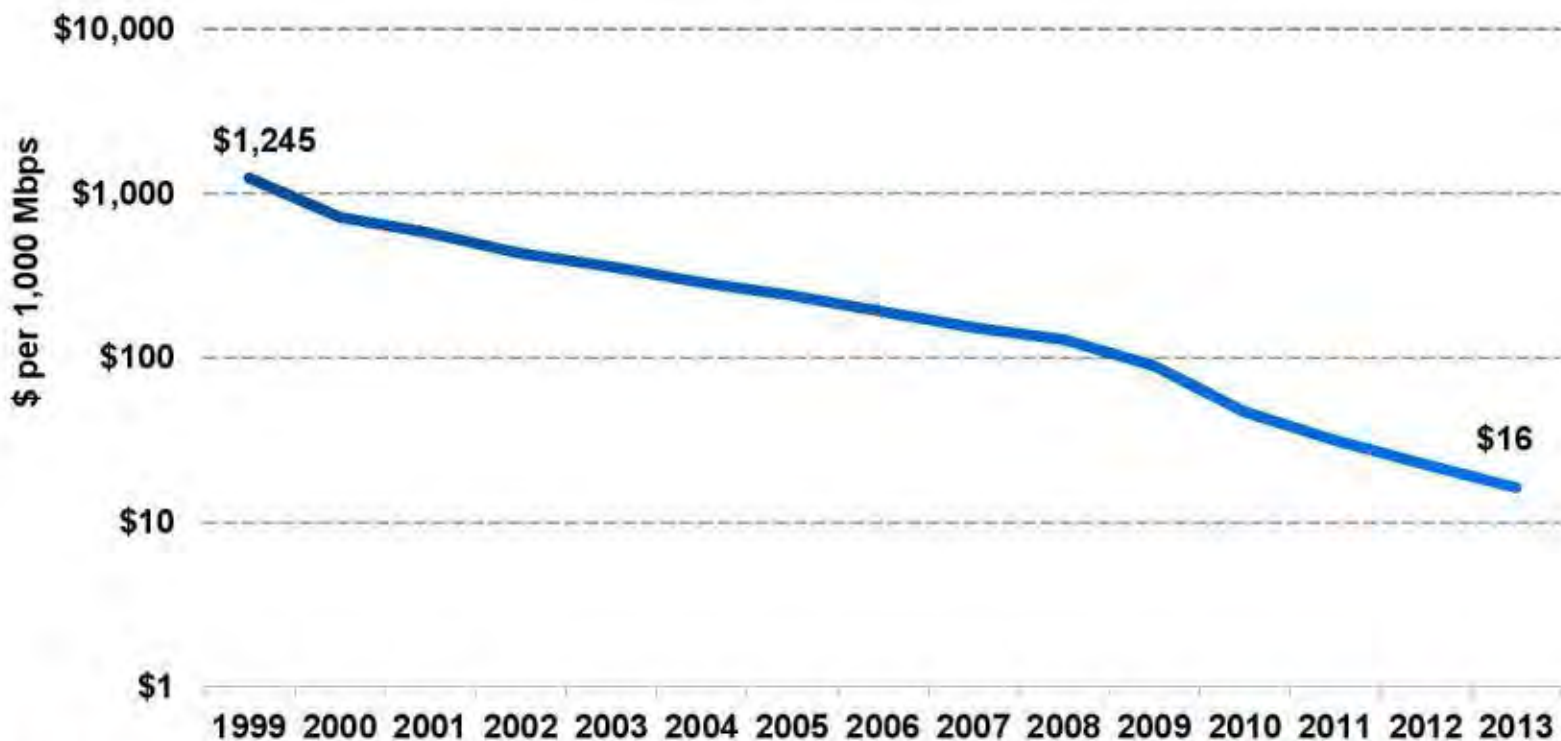
Global Storage Cost Trends



带宽成本下滑：1990年至2013年间平均年每年下滑27%

Declining cost / performance of bandwidth enables faster collection & transfer of data to facilitate richer connections / interactions

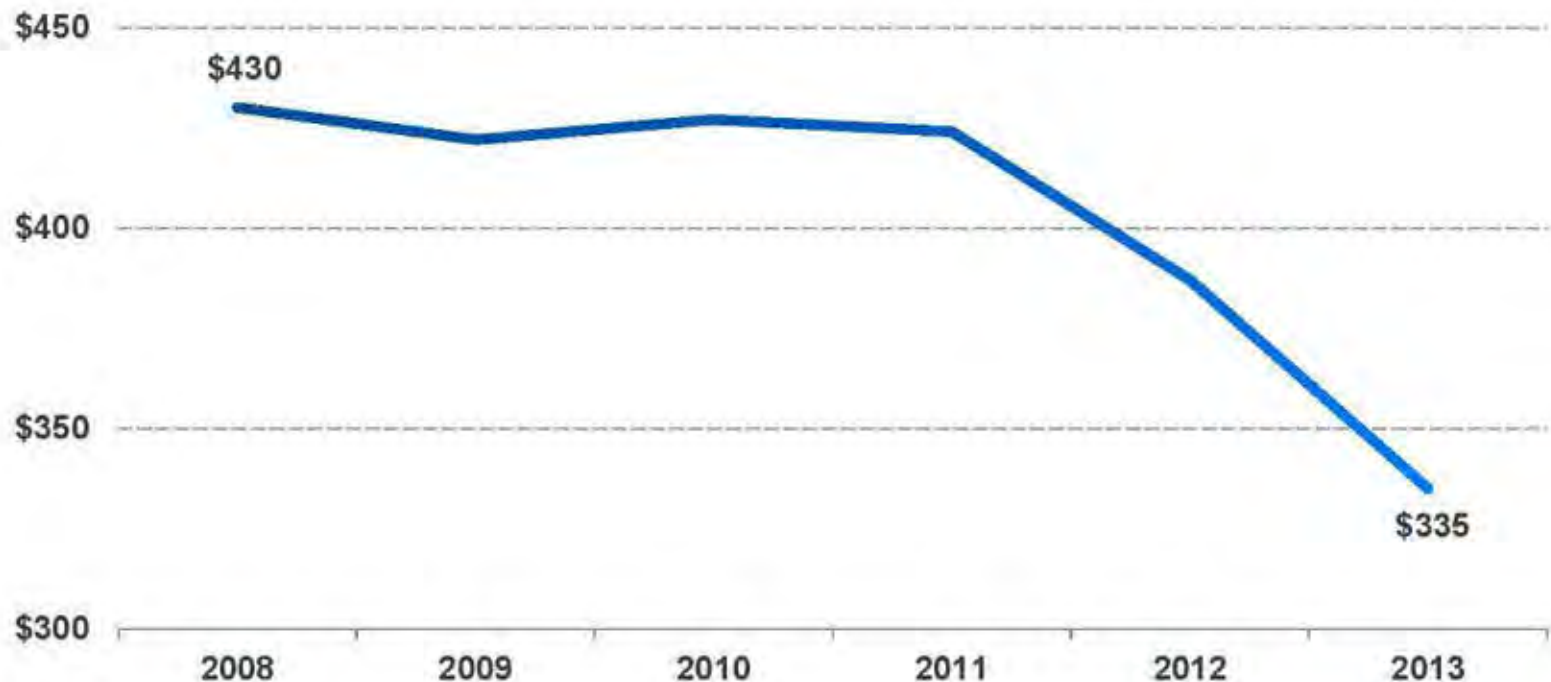
Global Bandwidth Cost Trends



智能手机成本下滑：2008年至2013年间平均年每年下滑5%

*Smartphone prices continue to decline,
increasing availability to masses*

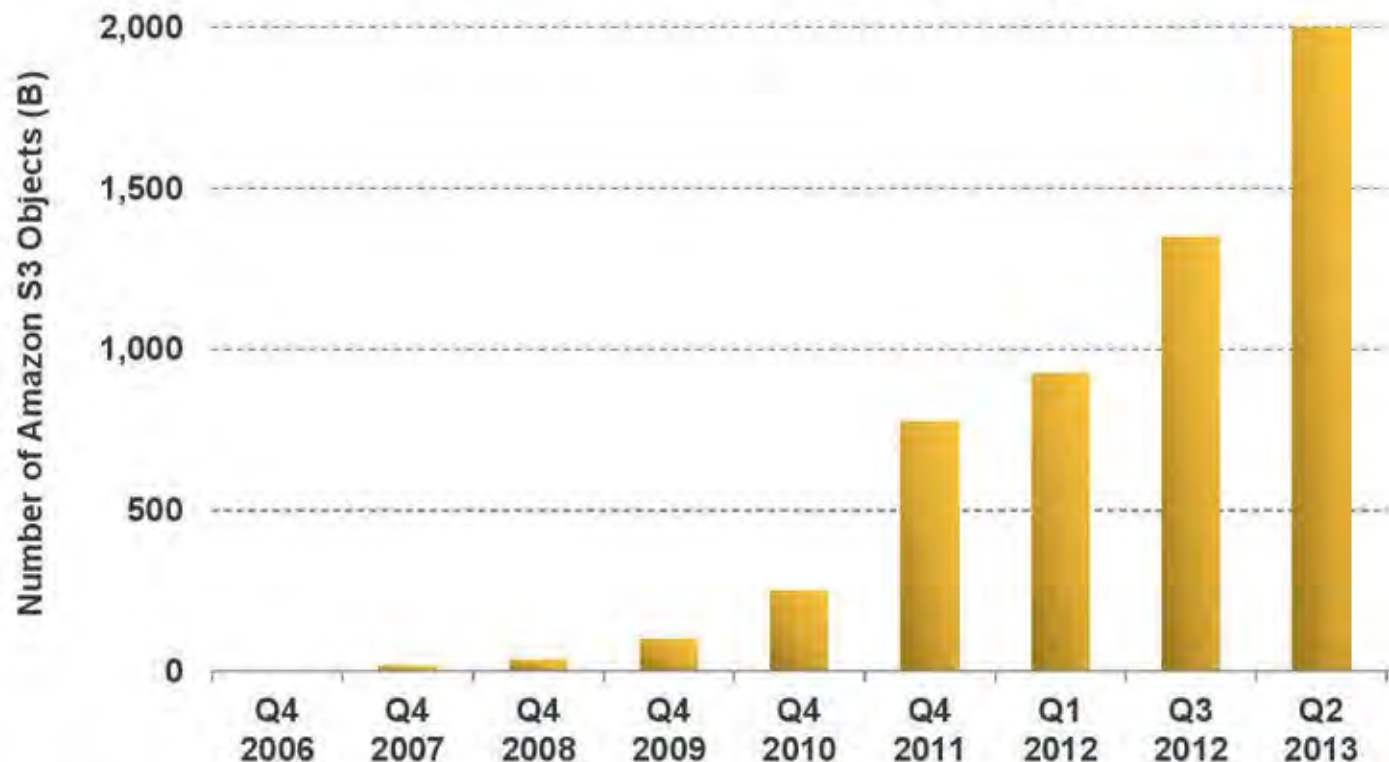
Average Global Smartphone Pricing Trends



云计算崛起：亚马逊处于领先地位

Amazon Web Services (AWS) Leading Cloud Charge

Objects Stored in Amazon S3* (B)



美观的新用户界面，
加上产生数据的消费者，
有助于让数据更易用/实用

挑战

非云业务模式

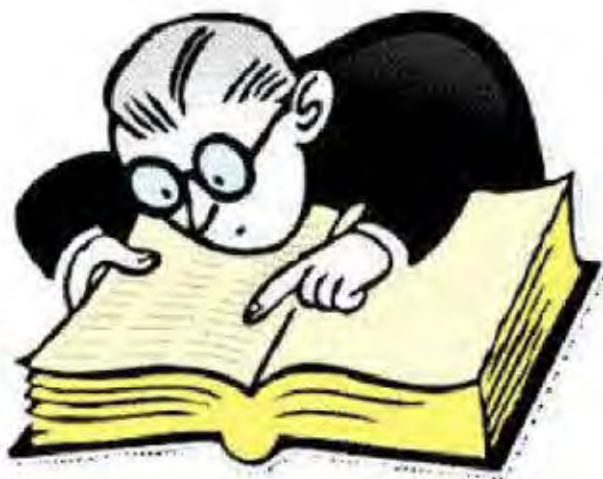
创业公司：通过重酬融资，通常不会遇到同样的挑战

新公司：利用新型设备获取的新数据，

以最新的方式做旧的事情，发展迅速

重塑用户界面—本地搜索业务

Yellow Pages



Yelp

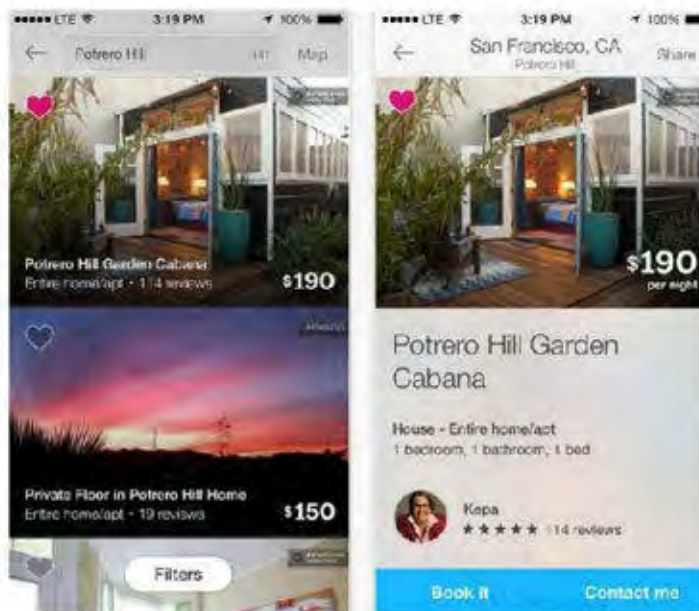


重塑用户界面—寻找住处

Booking Hotel Room



Airbnb



重塑用户界面—组织物流/人员流动

Hailing Cab



Uber

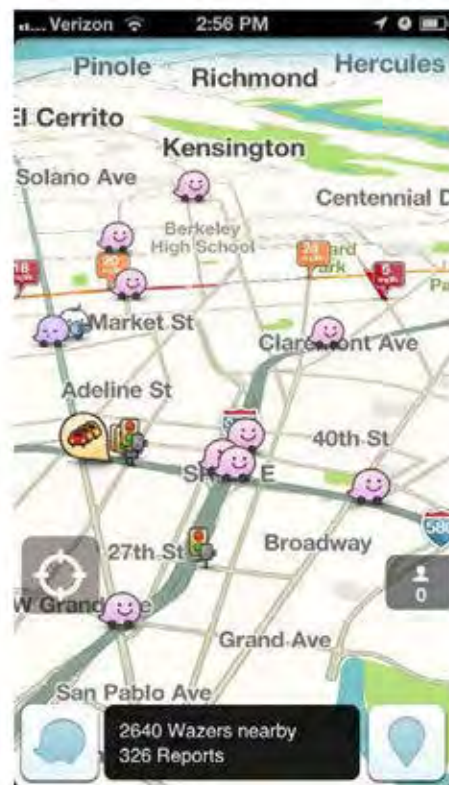


重塑用户界面—通过众筹管理出行

Driving in Traffic



Waze



重塑用户界面—查找音乐

Satellite Radio



Spotify



重塑用户界面—用语音查找视频

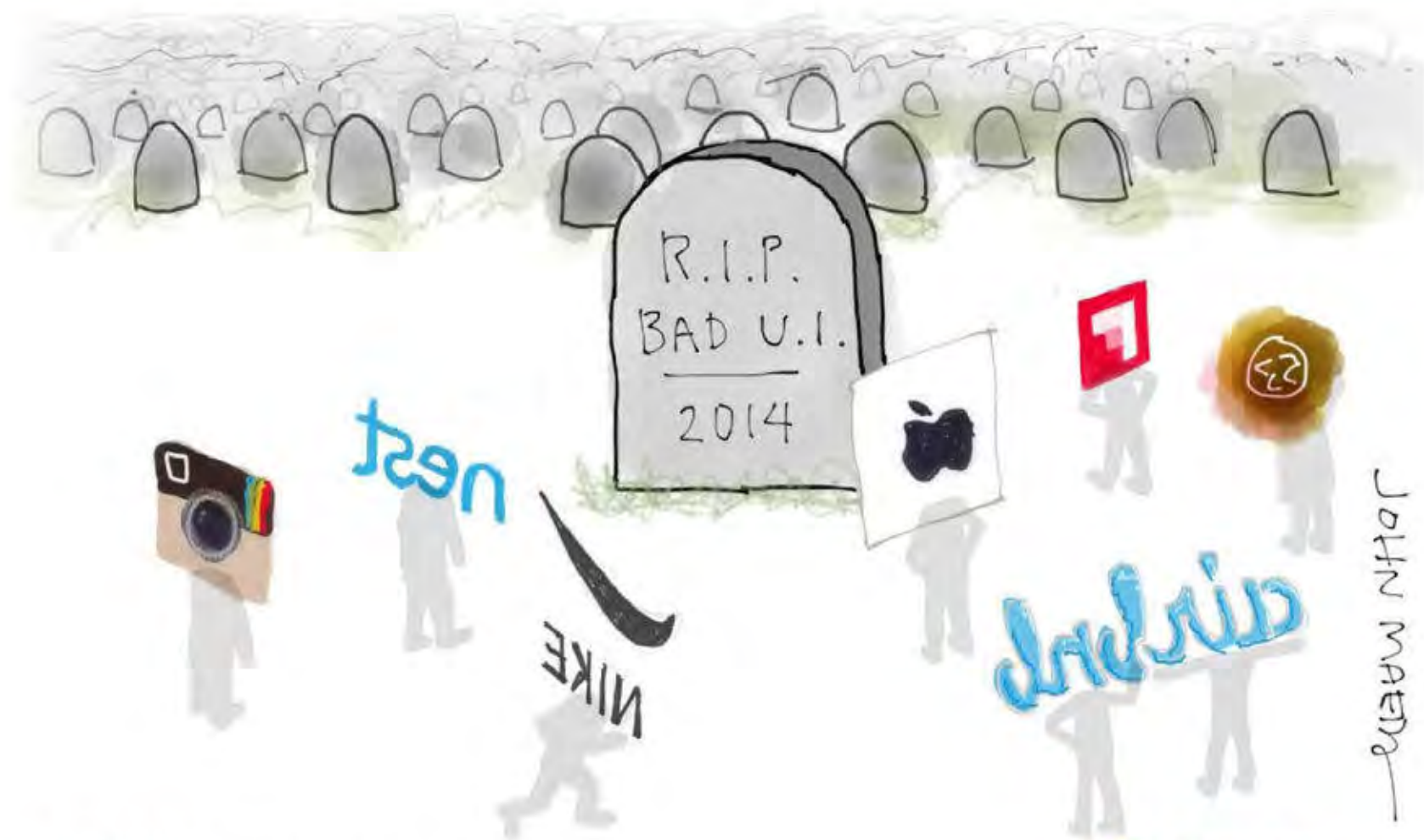
TV Remote Control



Amazon Fire TV



R.I.P. 摒弃糟糕的用户界面



数据挖掘/分析工具帮助寻找模式

34%的数字通用数据具有价值，但仅7%被标注整理，1%被分析

Significant Portion (34%) of IDC Digital Universe Data = Useful –

Derived from embedded systems / data processing / social media / photos / sounds

Small Portion (7%) Data = Tagged –

Fastest growing segment of valuable data comes from Internet of Things (IoT) – billions of sensors / intelligence systems capturing / sending data, increasingly in real-time

Immaterial Portion (1%) Data = Analyzed –

Newer tech companies are making it easier to understand / make use of increasing amount of data

数据挖掘/分析工具/组织数据正在迎合消费者需求，且增长迅速

Jawbone

Health Wearable

- 100MM nights of sleep logged = 27K years
- 50B activity data points crunched per week
- 1MM personalized insights per week



Dropcam

Home Monitoring

- ~100B video frames processed per hour
- +300% Y/Y revenue growth, 2013



Netflix

Media Personalization / Discovery

- Terabytes of user data analyzed to generate personalized media recommendations
- 44MM subscribers (+25% Y/Y, 2013)



AppDynamics

App Performance Monitoring

- 500B Web / mobile transactions instrumented / tracked
- 1.4MM hours saved waiting on apps
- 1,200 enterprise customers



SnapLogic

Cloud Integration / Data Transmission

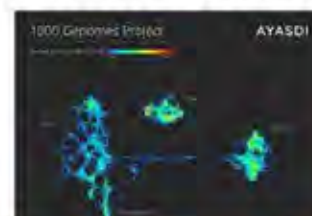
- 500MM+ machine / device scans integrated per day
- 160+ data / cloud connectors on SnapStore
- +128% Y/Y subscription revenue, 2013



Ayasdi

Automated Insight Discovery

- Auto extracts business insights from datasets with 1MM+ features
- 120K hours saved of manual data analysis in 2013
- +451% Y/Y bookings growth, 2013



数据的早期出现/基于模式问题的解决

大数据：用来解决大问题

Google Voice Search

Voice Recognition

- Uses neural nets to reduce speech recognition errors by 25%
- Used by 1/6 of Google's U.S. mobile users



Nest

Energy

- 2B+ Kilowatt hours (kWh) of energy saved since 2011*
- Reduces heating / cooling costs up to 20%...an estimated annual savings of \$173 per thermostat



Zephyr Health

Healthcare & Life Sciences

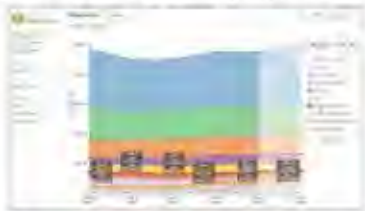
- Hundreds of millions healthcare data points ingested / organized (+192% Q/Q, Q3:13)
- 3,500+ independent life sciences sources used daily (+159% Q/Q & accelerating), spanning all major disease areas
- +111% Y/Y contracted revenue growth, 2013



OpenGov

Government Financials

- Compiles data of 37K US governments
- Real-time queries across millions of rows of transactions
- Adding new paying government customer every 4 days (& accelerating)



Automatic

Connected Car

- Collects / analyzes hundreds of millions of data points daily
- Provides personalized feedback to drivers, saving up to 30% in fuel costs
- Discovered driving over 70 MPH saves <5% time, but wastes \$550 gas / year



Wealthfront

Investment Management

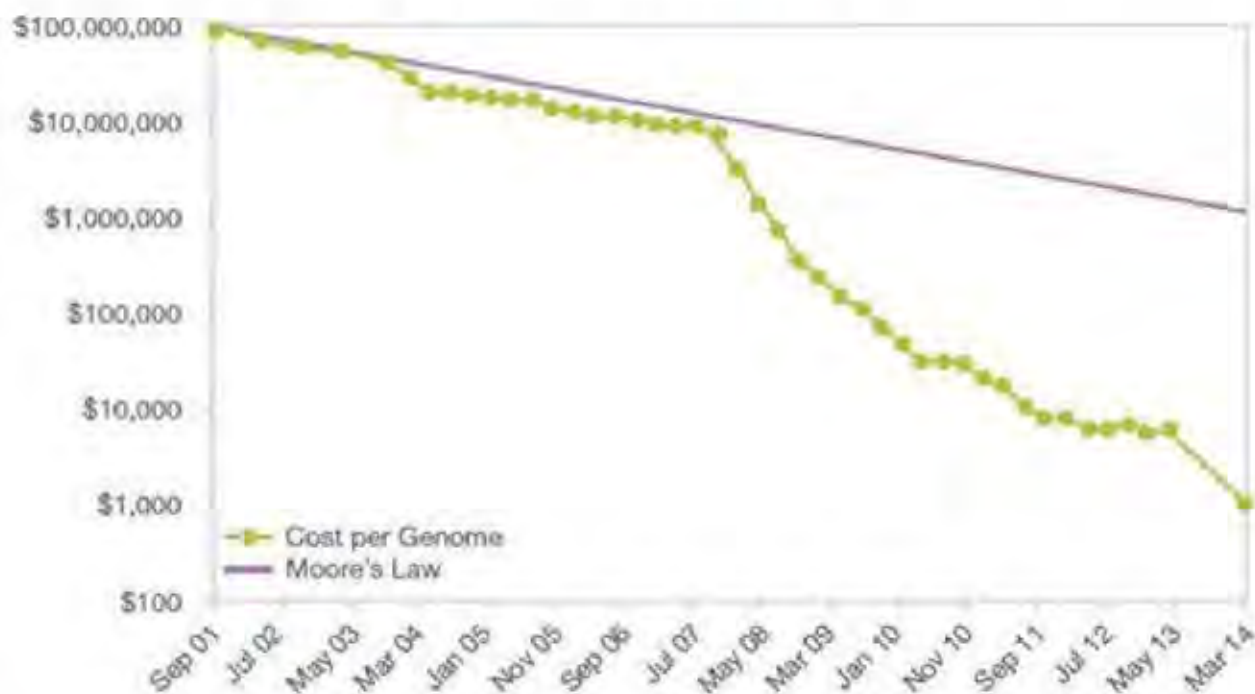
- +4.6% return vs. average mutual fund**
- 200K risk questionnaires completed
- 650K free trades, saving clients \$5MM+
- 10K+ clients
- \$800MM+ AUM, +700% since 1/13



基因组测序的成本降至1000美元，所需时间降至24小时

*Accurate diagnosis is foundation for choosing right treatments for patients & clinical lab tests provide critical information health care providers use in ~70% of decisions**

*Genetic & genomic testing can be at heart of a new paradigm of [precision] medicine that is evidence-based & rooted in quantitative science***



最大的重塑=

移动设备+上传大量可查找、可共享数据的传感器

屏幕+视频增长=才刚刚开始

电视的未来——Netflix CEO里德·哈斯廷斯(Reed Hastings)

- 1) 屏幕多样化
- 2) 传统的遥控正在消失
- 3) 应用(App)正在取代频道
- 4) 互联网电视取代传统电视

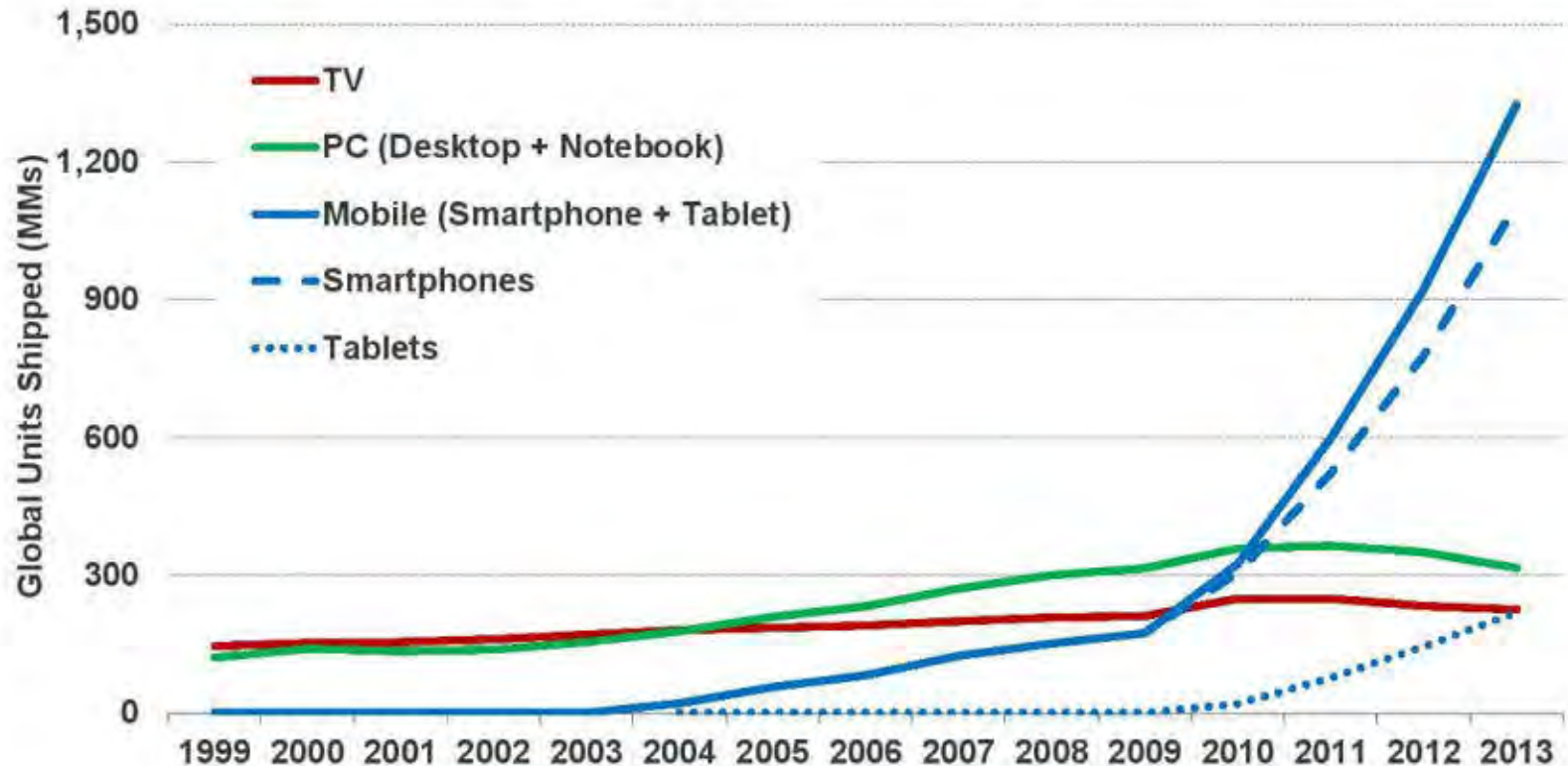
屏幕多样化

今天的屏幕：你的屏幕、我的屏幕，我们都有屏幕



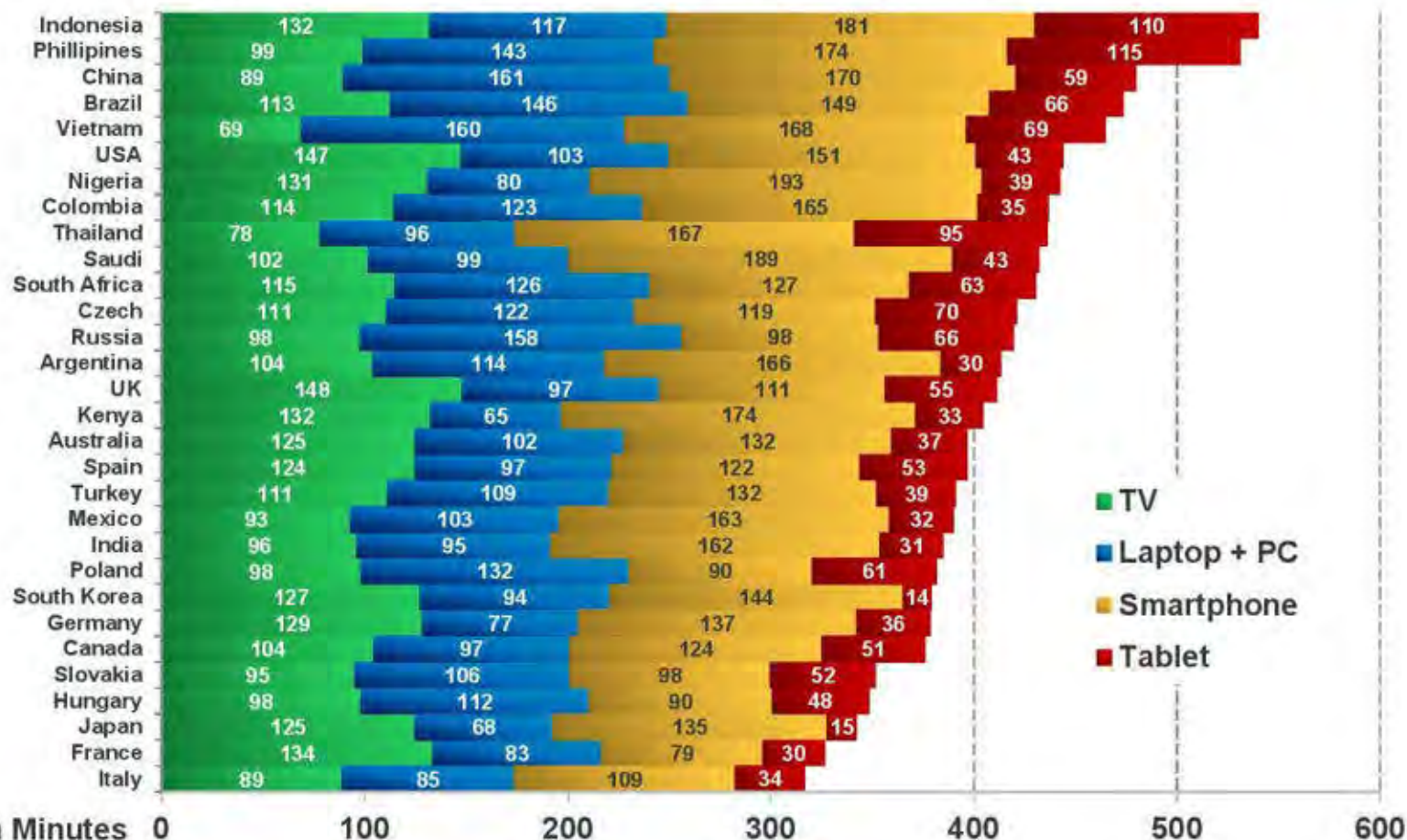
自诞生的10年以来，移动设备(智能手机和平板电脑)出货量达到了电视和PC的4倍至5倍。

Global TV vs. PC (Desktop + Notebook) vs.
Mobile (Smartphone + Tablet) Shipments, 1999 – 2013



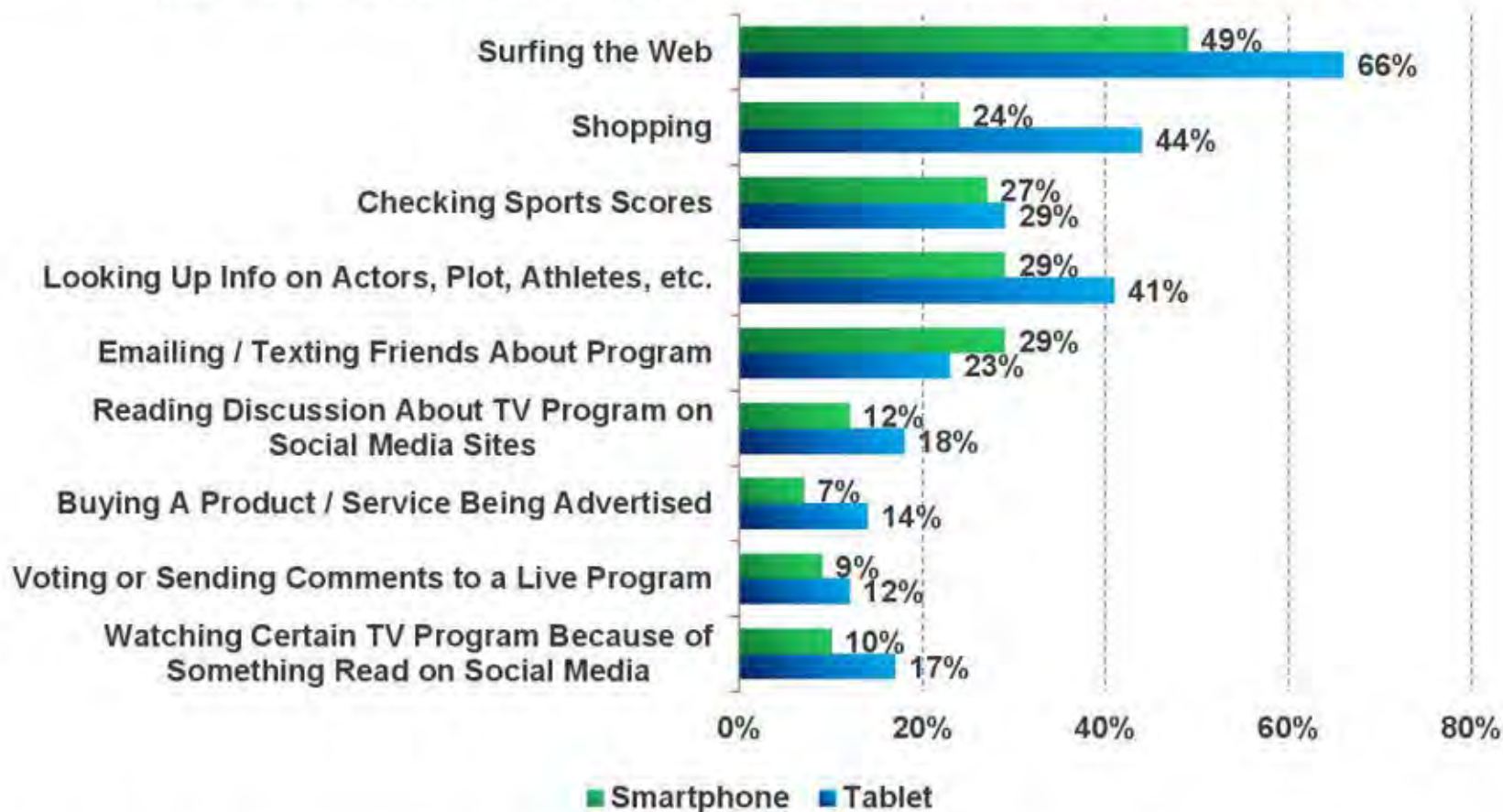
智能手机：被浏览次数最多的屏幕

Daily Distribution of Screen Minutes Across Countries (Mins)



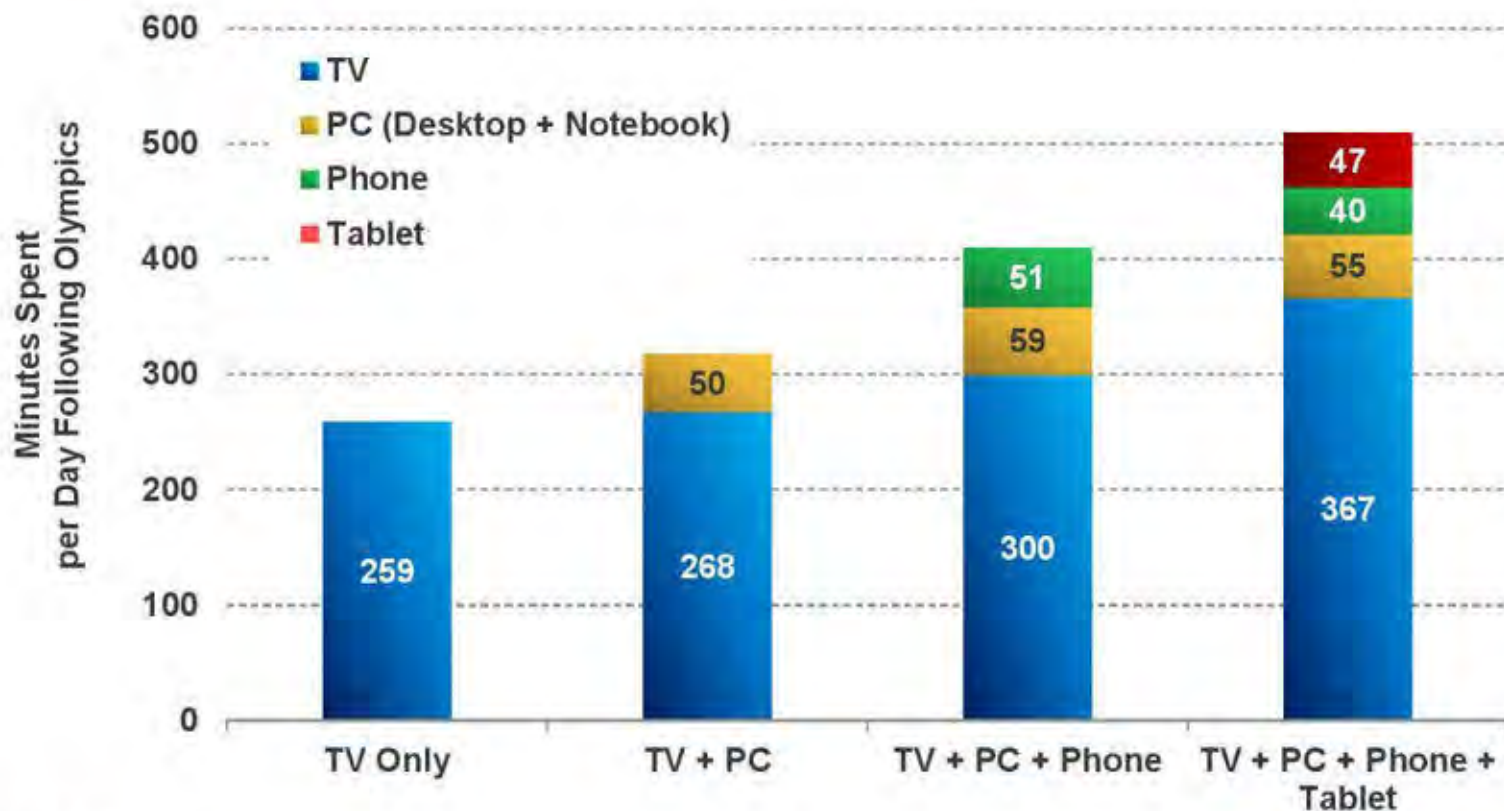
消费者在看电视的同时还使用移动设备，主要是浏览网页和购物

What Connected Device Owners are Doing While Watching TV, USA



屏幕数量的增加推动媒体互动时间的增长

2012年奥运会期间，“四屏”用户每天的关注时间为单一电视用户的2倍



多屏幕：消费者以更少的时间获得更多的内容？

**5 Hours of
TV Screen Media**

=

**4 Hours of Content +
1 Hour of Commercials**

vs.

**5 Hours of
Multiple Screen Media**

*Smartphone (35%) + TV (27%) +
PC (26%) + Tablet (12%)*

=

>5 Hours of Content?

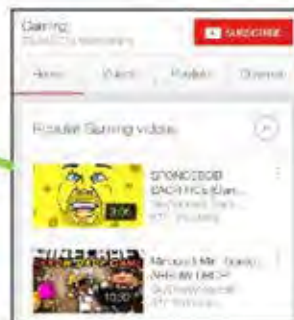
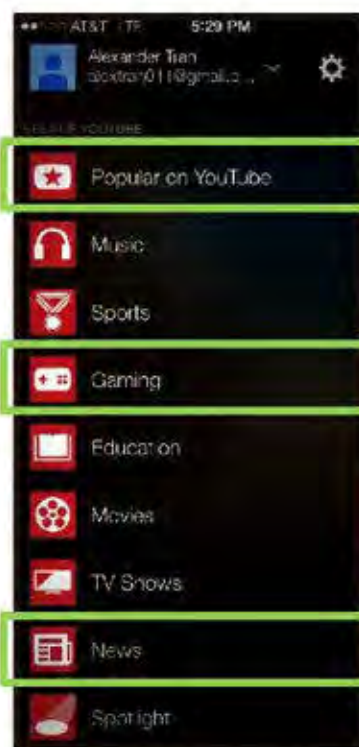
传统遥控器正在消失

重塑传统遥控器：遥控器变成了IP搜索引擎

Then



Now



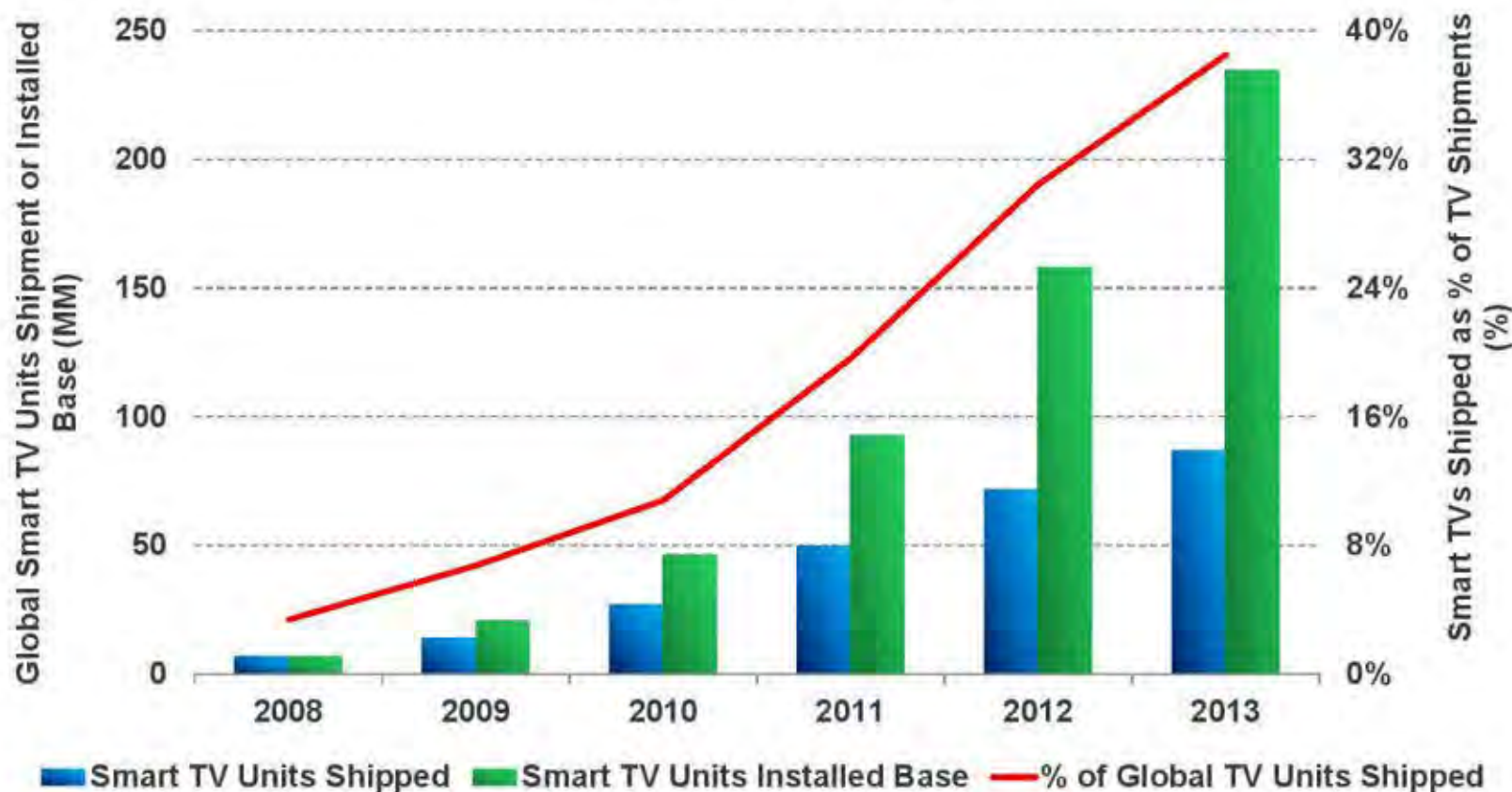
智能机蚕食了功能机市场，
智能电视适配器和智能电视将改变互联网的屏幕

谷歌Chromecast、亚马逊Fire TV等智能电视适配器带来千万级别的用户

	Company / Product	Launch Date
New	Amazon Fire TV	4/14
	Google Chromecast	7/13
	Roku	5/08
	Apple TV	1/07
Old	Nintendo Wii Nintendo Wii U	12/06
	Sony PlayStation 3 Sony PlayStation 4	11/06
	Microsoft Xbox 360 Microsoft Xbox One	11/05

2013年智能电视出货量增长39%，但使用率仍低于10%

Smart TV Units Shipped, Installed Base, & Shipment Mix
2008 – 2013, Global



应用正在取代电视频道

越来越多的电视频道在变成点播应用

ESPN

- 34MM (52%) ESPN digital users access ESPN just on smartphones / tablets = 48% of time spent on ESPN digital properties, 4/14



BBC

- 234MM requests for TV programs on iPlayer in 2/14, +21% Y/Y
- 46% of requests from mobile / tablet vs. 35% Y/Y



HBO

- 1,000+ hours of video content

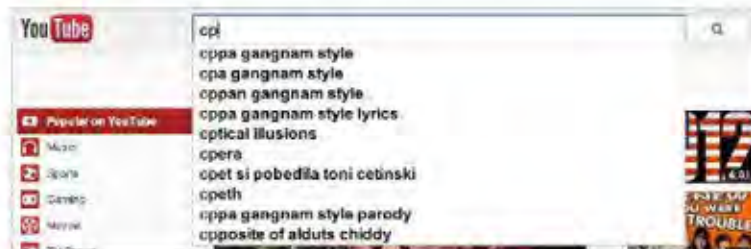


互联网从分类目录向搜索与应用进化， 电视在从分类目录向应用和搜索进化

TV Guide

PRIME TIME Tuesday 9/18			
Channel	7-9 PM	9-11 PM	11 PM-1 AM
1	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
2	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
3	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
4	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
5	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
6	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
7	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
8	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
9	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
10	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
11	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
12	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
13	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
14	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
15	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
16	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
17	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
18	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
19	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
20	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
21	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
22	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
23	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
24	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
25	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
26	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
27	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
28	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
29	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
30	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)
31	News at 7 PM (R)	News at 10 PM (R)	News at 11 PM (R)

YouTube - Search Bar Comcast - X1 Guide




Youtube上产生了大量的新频道，
40%用户在使用移动设备，
这一数字正在持续增长

Youtube频道增长迅速，触及大量用户


Channel	Subscribers (MM)	Y/Y Growth (%)
Music	85	166%
Gaming	79	165%
Sports	78	164%
News	35	213%
Popular	28	133%
Spotlight	22	342%
Movies	18	195%
TV Shows	12	106%
Education	10	—

Music




Demi Lovato - Let It Go (from "Frozen") [Official]
by Demi Lovato:VEVO
151,660,172 views

Gaming




Minecraft: Diamonds Are Forever
by CommanderLigge
7,436,601 views

Sports




Top 10 Reign on Plays of the Playoffs: First Round
by NBA
114,323 views

News




National Climate Assessment cites loomin...
by News - Top Stories
3 videos

Popular




Official Extended Trailer | GOTHAM | FOX...
by FOX
1,898,217 views

Spotlight




Elon Musk: The Rocket Scientist Model for 'Iron...
by TIME
6,854 views

Movies




Frozen (2013)
by Walt Disney Studios Home Entertainment

TV Shows



Modern Family
2.1 subscribers

Education



3D Scanning at the Smithsonian
by Smithsonian
100,157 views

消费者爱视频

-长视频和更多短视频

新媒体产生新的明星，Youtube热门视频有6-2600万订阅者，前十名热门视频平均长度为7分钟

Video Game Commentator PewDiePie

26MM+ subscribers,
+230% Y/Y



Comedy Duo Smosh

17MM+ subscribers,
+81% Y/Y



Spanish Comedian HolaSoyGerman

17MM+ subscribers,
+157% Y/Y



Comedian nigahiga

12MM+ subscribers,
+50% Y/Y



Make-Up Artist Michelle Phan

6MM+ subscribers,
+70% Y/Y



Style and Beauty Blogger Bethany Mota

6MM+ subscribers,
+180% Y/Y



消费者爱看优秀的广告短片

#1 = Nike Football
@ 49MM+ Views



#2 = Dove: Patches
@ 20MM+ Views



#3 = Evian Spider Man
@ 16MM+ Views



#4 = Castrol Footkhana
@ 14MM+ Views



#5 = "Unsung Hero" (Thai Life)
@ 12MM+ Views



谷歌TrueView让用户能跳过广告，创造了观众和广告主的双赢，彻底改变了行业

YouTube's TrueView Ads = 'Cost-per View' Video Marketing

*AdWords Dynamically Places Video Ad Content
on Google / YouTube Users Can Skip*

- **Ads = Great Content** – Transformation potential from commercials users want to skip to short-form content users choose to watch
- **Advertisers Win** – Better results as only pay for users who are engaged & watch video improves direct click-through options with consumers
- **Data** – As YouTube collects data on how users engage with ads, it continues to improve the user experience and advertiser ROI



*Evian Baby & Me = Most Watched
YouTube Ad Of 2013 = 87MM+ views*



传统观众定时调台，
粉丝群观看的时间自己做主，
传统观众看完后换台，
而粉丝能分享、评论、传播和创造

消费者为社交视频/电视投票

新型视频：观众从旁观者-参与者到参与者和活跃的旁观者

Twitch

45MM MAUs (12/13) vs. 8MM Three Years Ago (7/11)

12B Minutes Watched / Month, +2x Y/Y

900K Broadcasters / Month, +3x Y/Y

Featured Games Games people are watching now



League of Legends
10,100,000 viewers



Dota 2
7,000,000 viewers



Hearthstone: Heroes of Warcraft
2,100,000 viewers



Counter-Strike: Global Offensive
1,500,000 viewers



Diablo III: Reaper of Souls
1,000,000 viewers



Minecraft
1,200,000 viewers



Magic: The Gathering
1,000,000 viewers



Dark Souls II
500,000 viewers



Call of Duty: Black Ops II
500,000 viewers

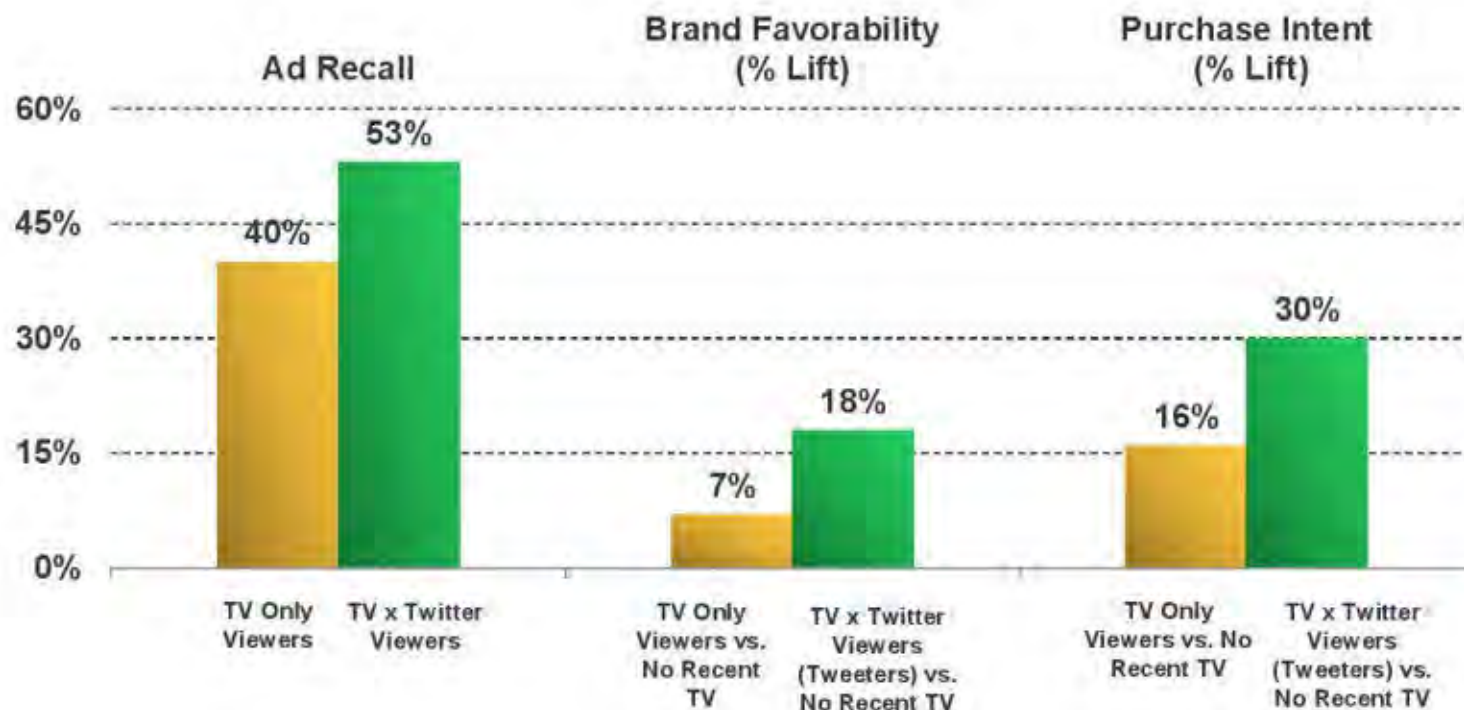
Twitch = Top Live Video Streaming Site by Volume, USA, 4/14

Rank	Site	Volume (%)
1	Twitch	44%
2	WWE	18%
3	Ustream	11%
4	MLB.com	7%
5	ESPN	6%

社交电视能让广告提升价值

电视+Twitter能增加广告印象

Impact of TV Ads on Viewers – TV with Twitter vs. TV without Twitter



消费者为个性化投票

Netflix提供了个性化推荐

A Father of Two



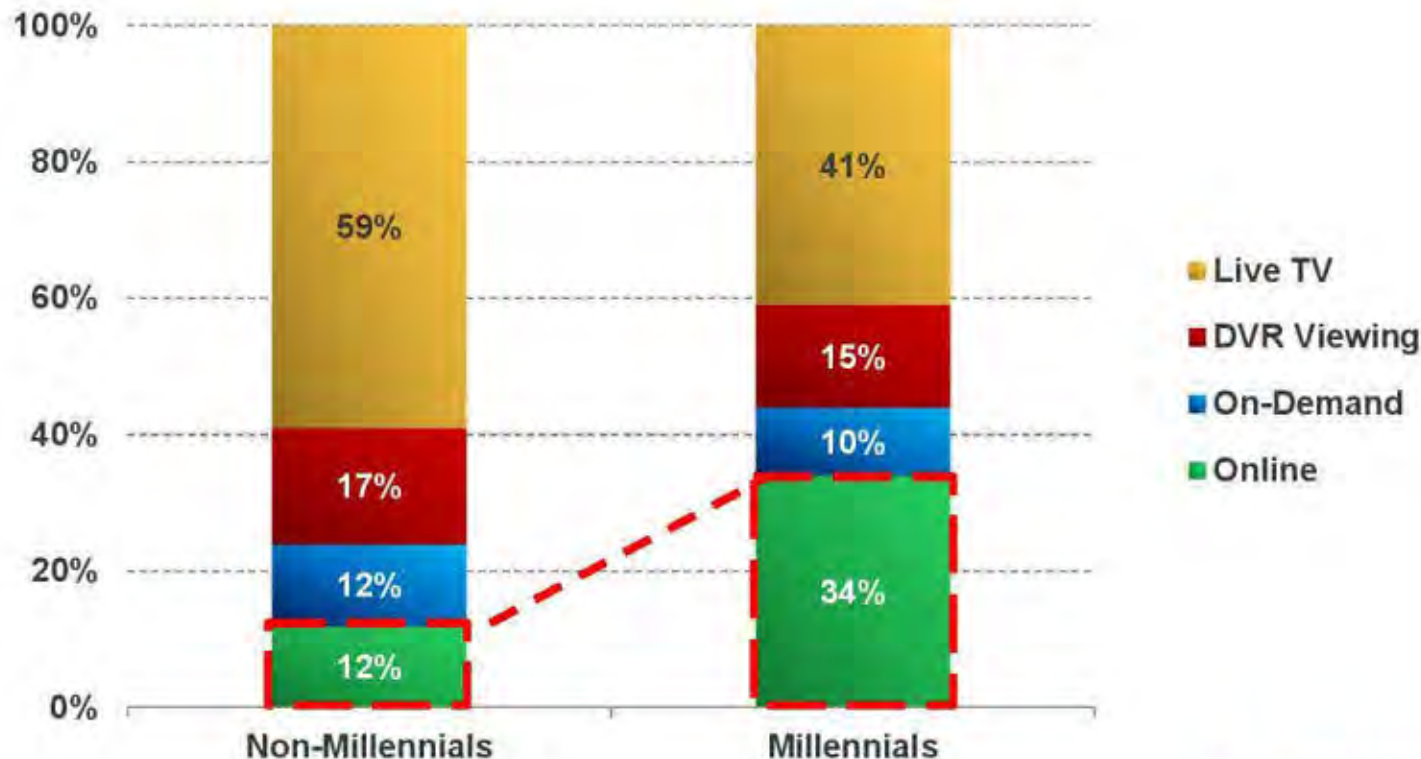
A Female Millennial



年轻消费者青睐视频点播

Y世代（80后和90后）34%的电视节目是在线观看的

Distribution of Total TV Time
Millennials vs. Non-Millennials, USA



互联网电视取代传统电视： 电视黄金时代的早期

用户越来越倾向于在他们想要的设备上和时段里观看电视

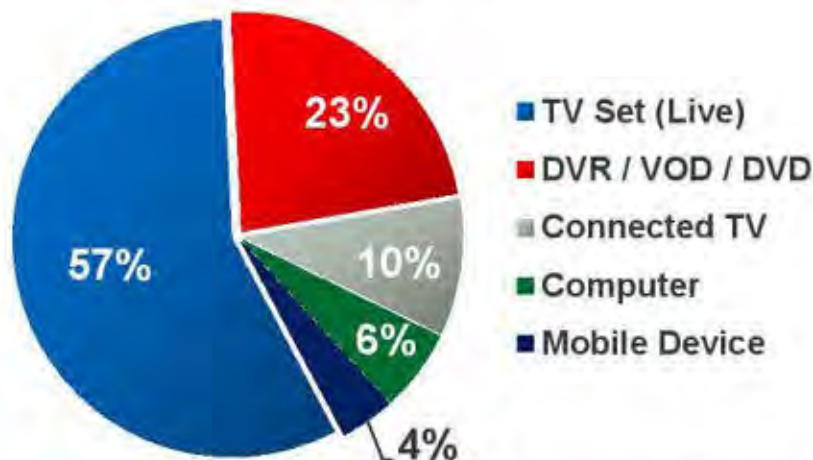
Device Share of TV Content, USA, 1/14

Circa 1950

TV Set (Live) =
100% of viewing

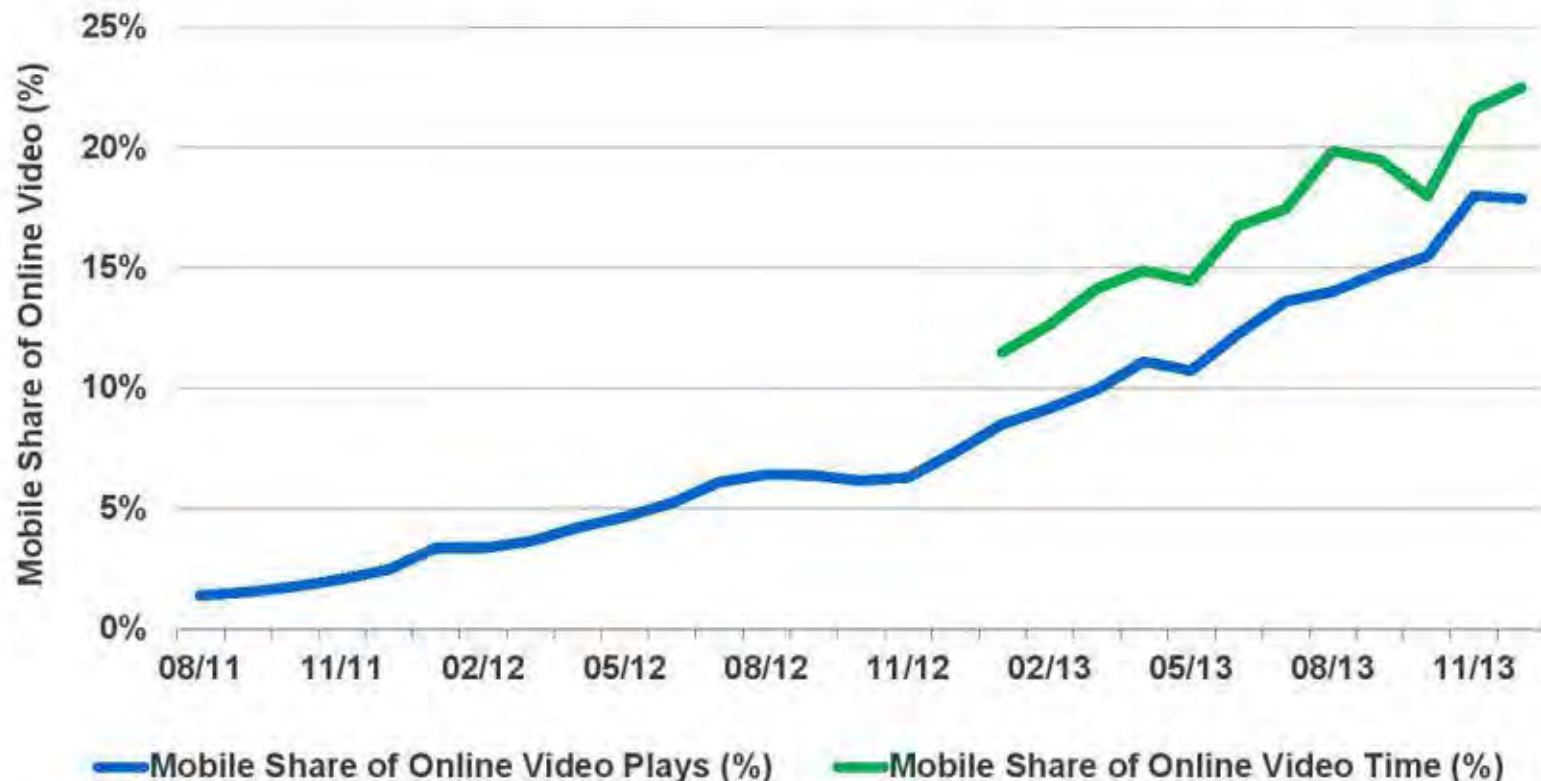


Circa 2014



22%的视频是在移动设备上观看的，占比同比翻倍

Mobile Share of Online Video Plays and Time, 8/11 – 12/13, Global



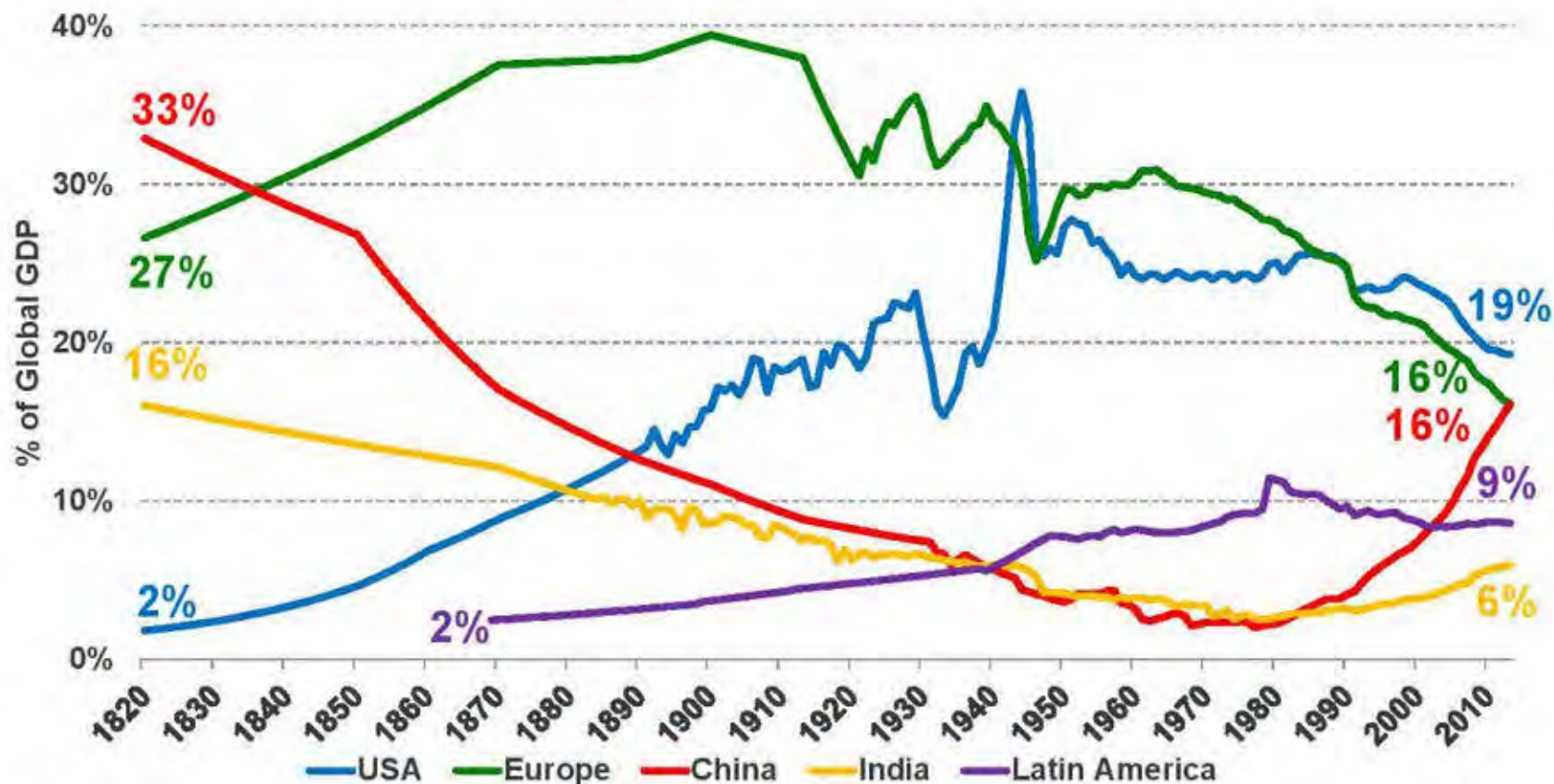
Netflix CEO看未来的电视

- 1) 屏幕扩散
- 2) 传统遥控器消失
- 3) 应用取代频道
- 4) 互联网电视取代传统电视。

中国崛起

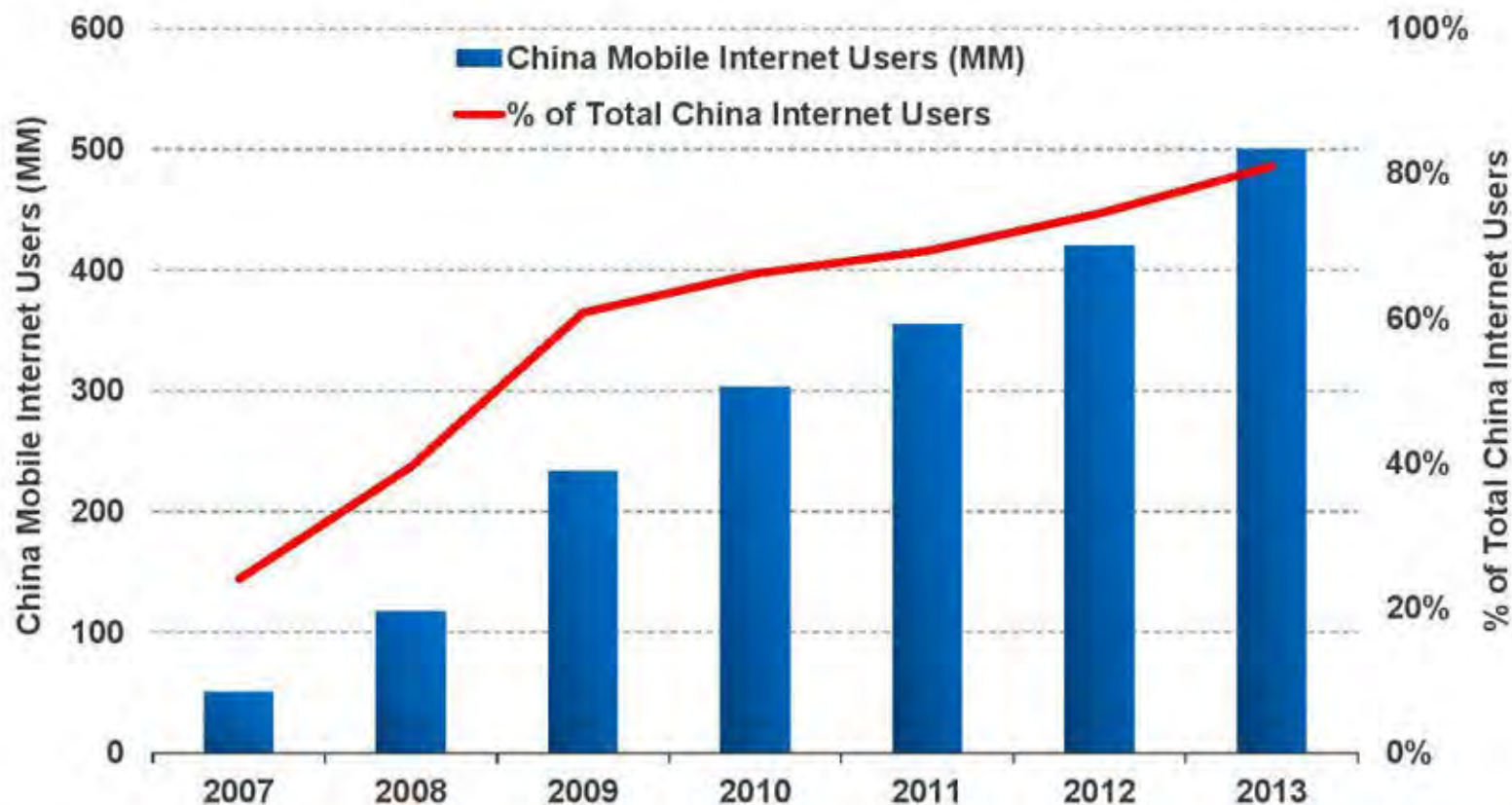
中国GDP持续增长，占全球比重迅速上升

Percent of Global GDP, 1820 – 2013,
USA vs. Europe vs. China vs. India vs. Latin America



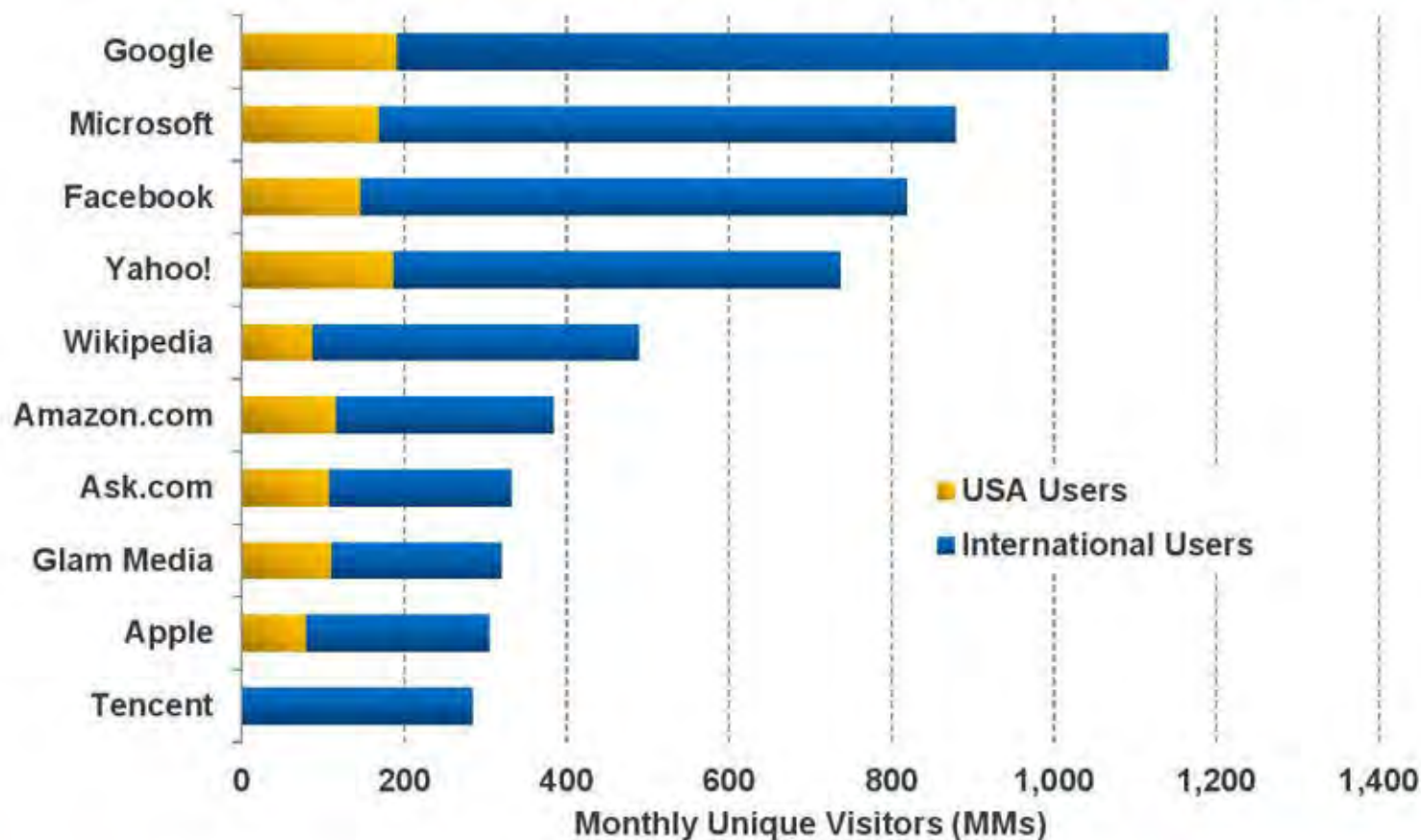
中国有5亿移动互联网用户，移动占比80%，全球最高

China Mobile Internet Users as % of Total Internet Users, 2007 – 2013



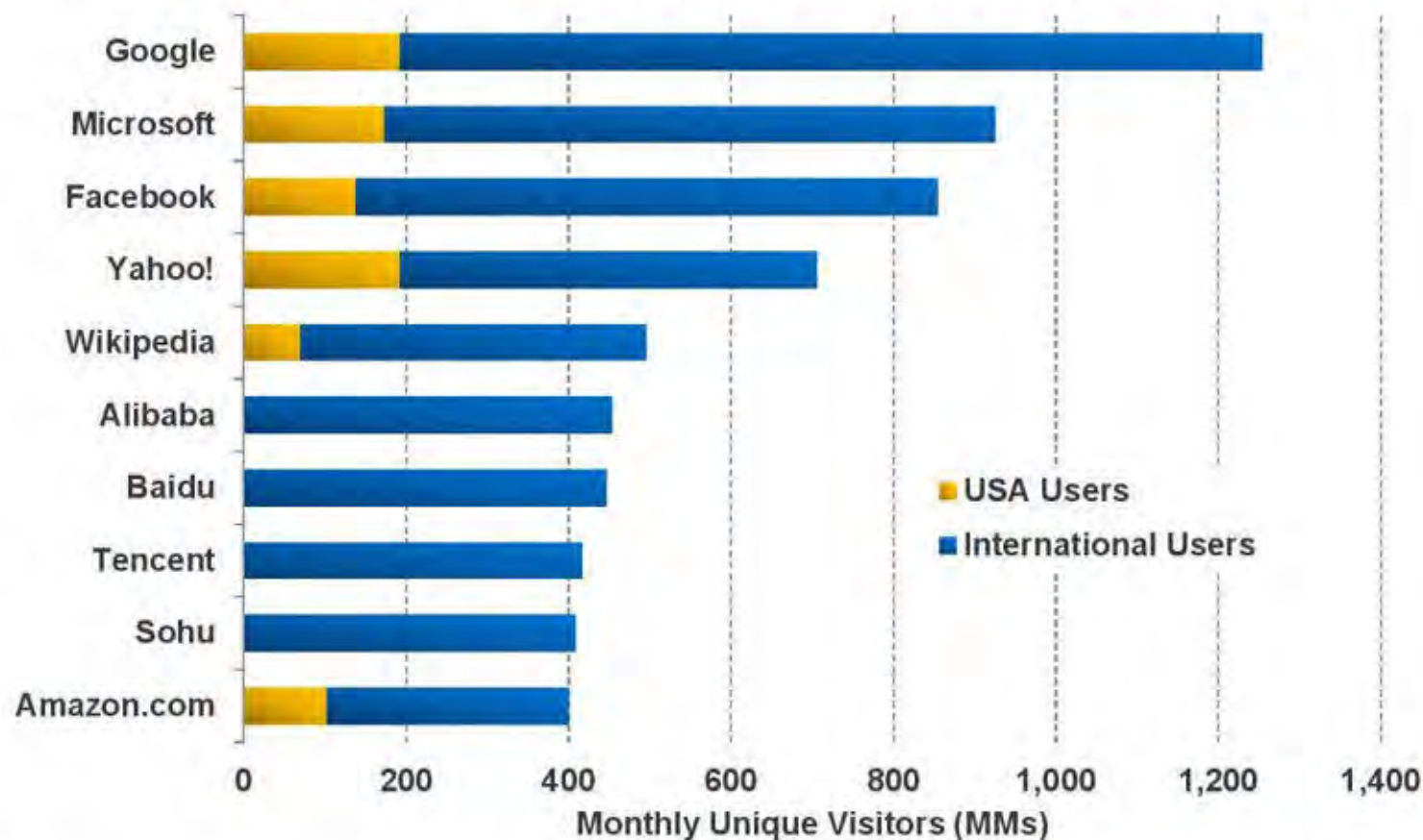
全球10大互联网服务有9个是“美国制造”，拥有79%海外用户

Top 10 Internet Properties by Global Monthly Unique Visitors, 1/13



全球10大网站(基于月独立用户访问量)有6个是“美国制造”，超过86%的用户来自美国以外，中国企业发展迅速

Top 10 Internet Properties by Global Monthly Unique Visitors, 3/14



中国： 移动商务创新领袖

Source: Liang Wu, Hillhouse Capital*

*Disclaimer – The information provided in the following slides is for informational and illustrative purposes only. No representation or warranty, express or implied, is given and no responsibility or liability is accepted by any person with respect to the accuracy, reliability, correctness or completeness of this information or its contents or any oral or written communication in connection with it. A business relationship, arrangement, or contract by or among any of the businesses described herein may not exist at all and should not be implied or assumed from the information provided. The information provided herein by Hillhouse Capital does not constitute an offer to sell or a solicitation of an offer to buy, and may not be relied upon in connection with the purchase or sale of, any security or interest offered, sponsored, or managed by Hillhouse Capital or its affiliates.

腾讯微信：移动活跃用户达4亿，
上面的移动和商业的元素越来越多

WeChat 'My Bank Card' Page



Manage money / invest in
money market funds
via WeChat Payment



Order taxi - powered by Didi -
pay via WeChat Payment



New Year Lucky Money –
fun / social game to incentivize
users to link bank cards to
WeChat Payment
5MM users used on
Chinese New Year Eve, 2014



Find restaurants /
daily group buy deals
- powered by Dianping -
pay via WeChat Payment



腾讯微信服务：虚拟助理

WeChat Service Accounts = Interactive Accounts with Communication / CRM / Ordering Capability

Personal Banker

China Merchant Bank allows customers to check & repay balances and ask live questions via WeChat



Shopping Assistant

Mogujie / Meilishuo (fashion discovery & shopping sites) give customers tailored suggestions via WeChat



Private Chef

Hahajing (a chain deli restaurant) allows customers to order & deliver food via WeChat



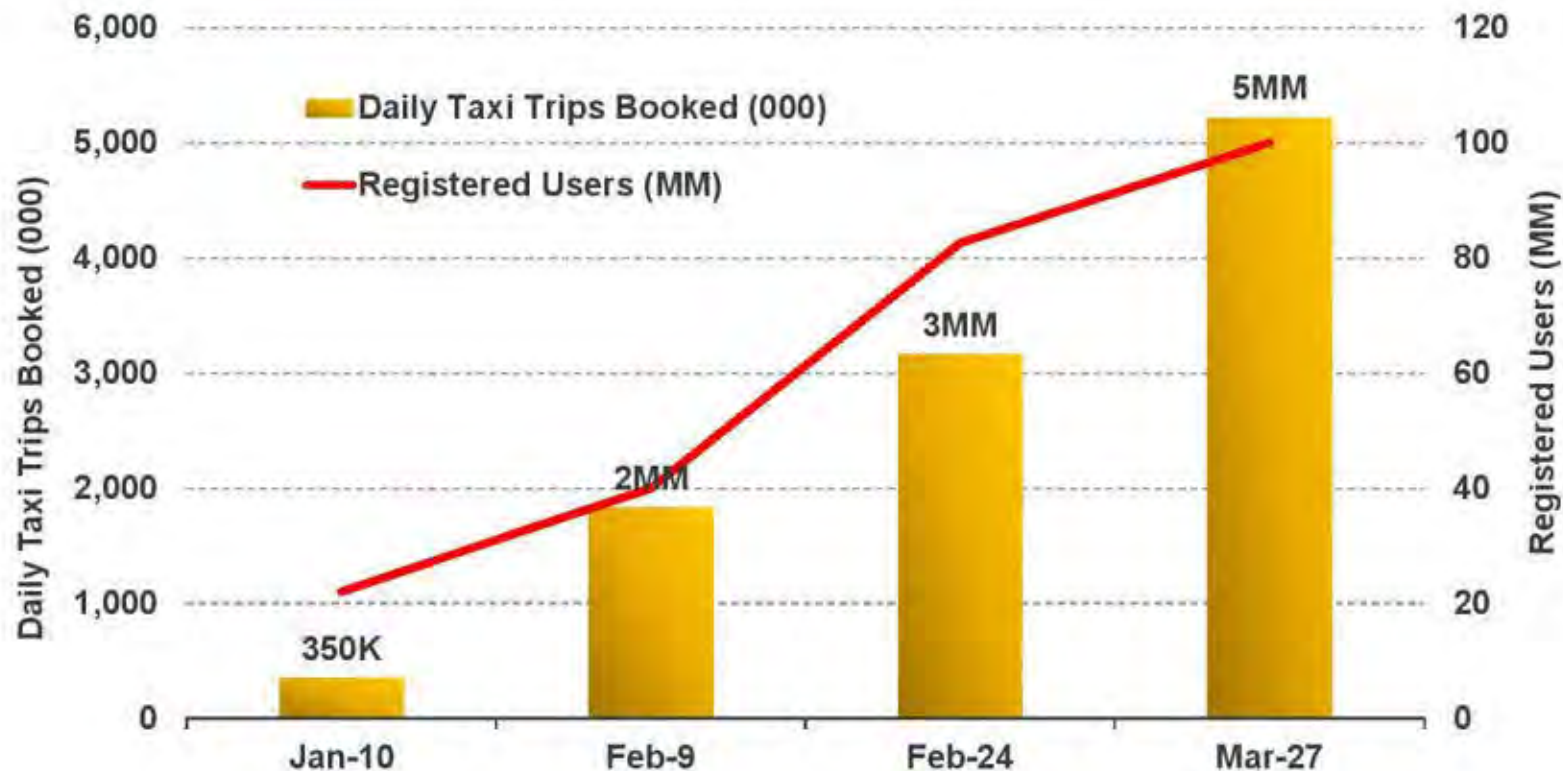
Grocery Getter

Xiaonongnv (a grocery delivery startup) prepares fresh groceries & delivers to your address via WeChat



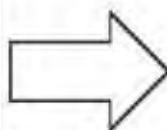
滴滴打车：注册用户超1亿，每日500万次预订量，
77天增长15倍，得益于微信支付。

Didi Taxi, Daily Taxi Trips Booked, 1/10/2014 – 3/27/2014



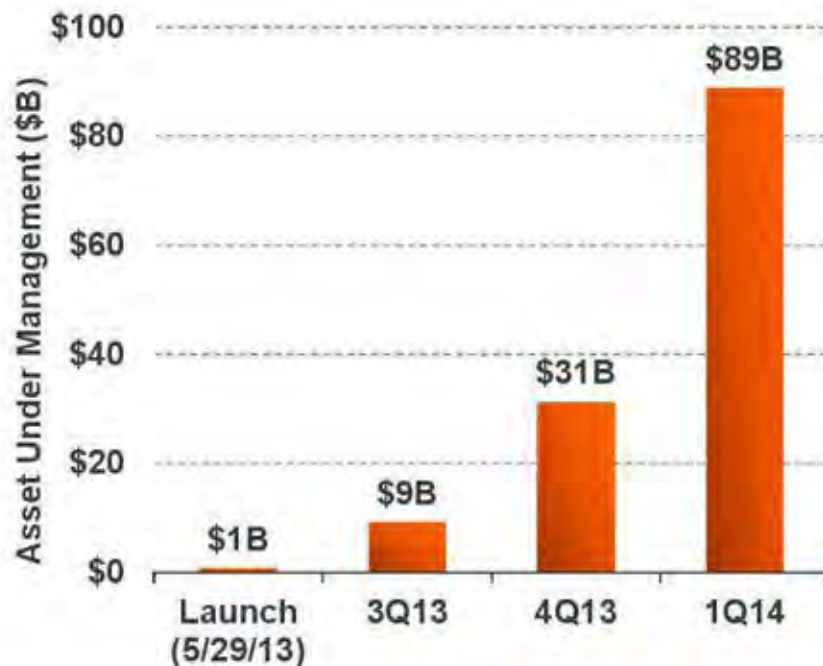
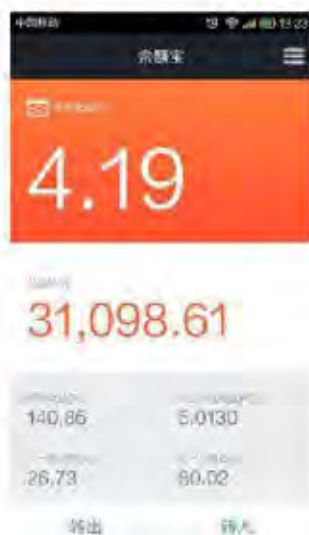
余额宝：推出10个月后管理的资产总额达到890亿美元

- Simple, fun-to-use mobile product
- Built on top of Alipay – the most popular online payment platform in China with 160MM+ accounts.
- Technology enables same-day settlement.



- \$0 → \$89B asset under management in 10 months
- Top 3 global money market fund by assets under management (AUM)

Alipay Yu'E Bao Assets Under Management, 5/13 to 1Q14



上市公司趋势

全球20大互联网上市公司(基于市值)

Rank	Company	Region	2014 Market Value (\$B)	2013 Revenue (\$MM)
1	Apple	USA	\$529	\$173,992
2	Google	USA	377	59,825
3	Facebook	USA	157	7,872
4	Amazon	USA	144	74,452
5	Tencent	China	132	9,983
6	eBay	USA	66	16,047
7	Priceline	USA	63	6,793
8	Baidu	China	59	5,276
9	Yahoo!	USA	35	4,680
10	Salesforce.com	USA	33	4,071
11	JD.com	China	29	11,454
12	Yahoo! Japan	Japan	25	3,641
13	Netflix	USA	24	4,375
14	Naver	Korea	23	2,190
15	LinkedIn	USA	19	1,529
16	Twitter	USA	18	665
17	Rakuten	Japan	16	4,932
18	Liberty Interactive	USA	14	11,252
19	TripAdvisor	USA	13	945
20	Qihoo 360	China	11	671
Total			\$1,787	\$404,644

全球上市互联网公司的领袖：并购+投资活动

Company / Market Cap (\$B)	Volume, 2012- 2014YTD (\$B)	Select Transactions, 2012-2014YTD					
Google \$377B	\$6B (M&A)	DeepMind	\$400MM (1/14)	Nest	\$3B (1/14)	Waze	\$1B (6/13)
	\$3B* (Investments)	Cloudera	\$160MM* (3/14)	DocuSign	\$100MM* (3/14)	Uber	\$258MM (8/13)
Facebook \$157B	\$24B (M&A)	Oculus	\$2B (3/14)	WhatsApp	\$19B+ (2/14)	Instagram	\$1B (4/12)
Tencent \$132B	\$7B* (Investments)	JD.com	\$3B (3/14)	CJ Games	\$500MM (3/14)	Activision Blizzard	\$429MM (7/13)
Alibaba TBD	\$5B (M&A)	ChinaVision	\$800MM (3/14)	AutoNavi	\$1B+ (2/14)		
	\$5B* (Investments)	Youku Tudou	\$1B (4/14)	Weibo	\$1B (4/13)		

ONE MORE THING(S)

从一个极端到另一个

实时流媒体：配备虚拟现实眼镜Rift的无人机？



全球互联网接入也在重塑？ ☹️



Thanks

KPCB Partners

Especially Alex Tran / Cindy Cheng / Alex Kurland who helped take spurts of ideas and turn them into something we hope is presentable / understandable

Participants in Evolution of Internet Connectivity

From creators to consumers who keep us on our toes 24x7

Walt & Kara

For continuing to do what you do so well

RAN OUTTA TIME THOUGHTS / APPENDIX

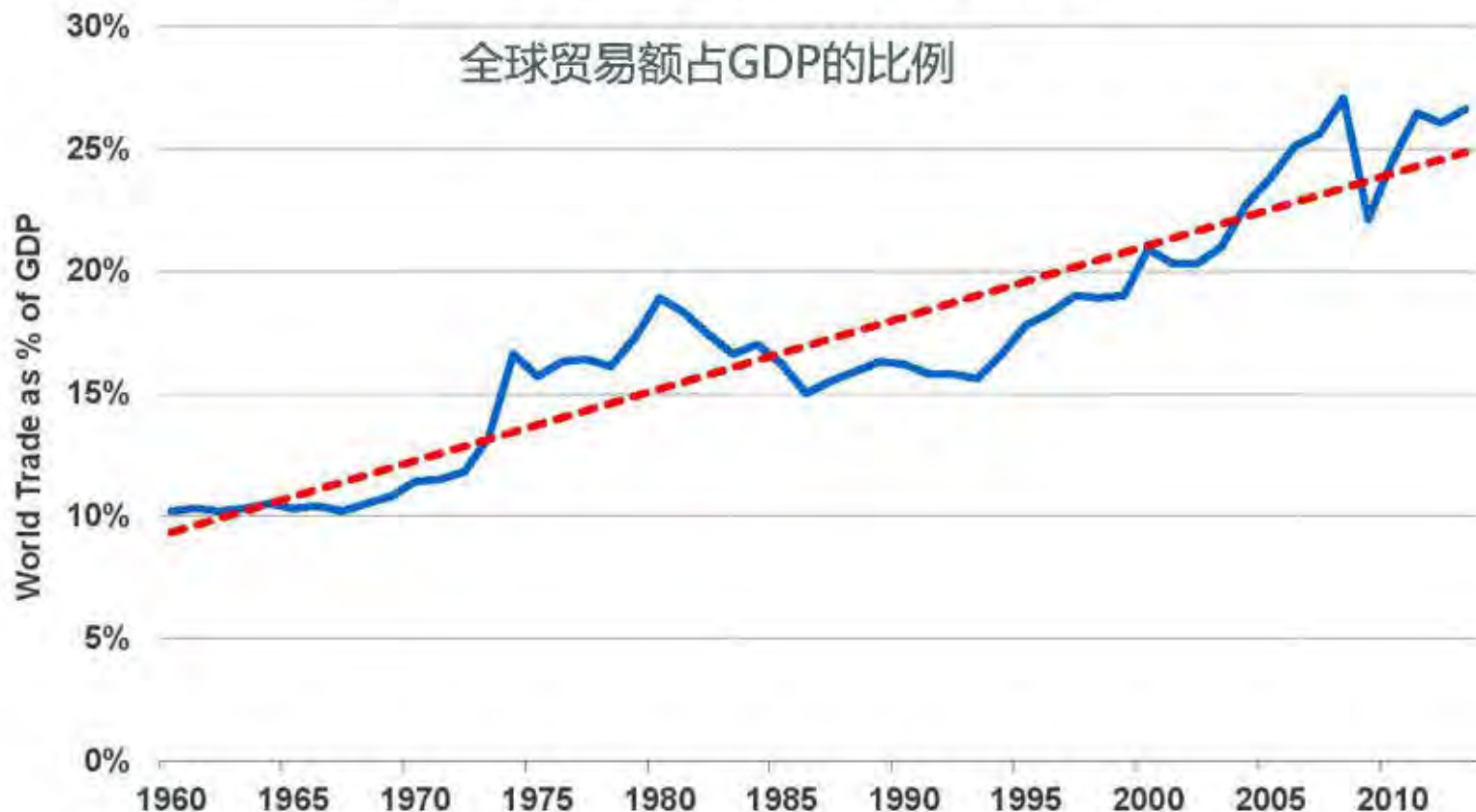
IMMIGRATION UPDATE

REPORT: <http://www.kpcb.com/file/kpcb-immigration-in-america-the-shortage-of-high-skilled-workers>

全球经济/人口：共存性增强

World Trade as % of World GDP, 1960 - 2013

全球贸易额占GDP的比例



25大科技公司中60%由第一代和第二代美国人创建

Founders / Co-Founders of Top 25 USA Public Tech Companies, Ranked by Market Capitalization

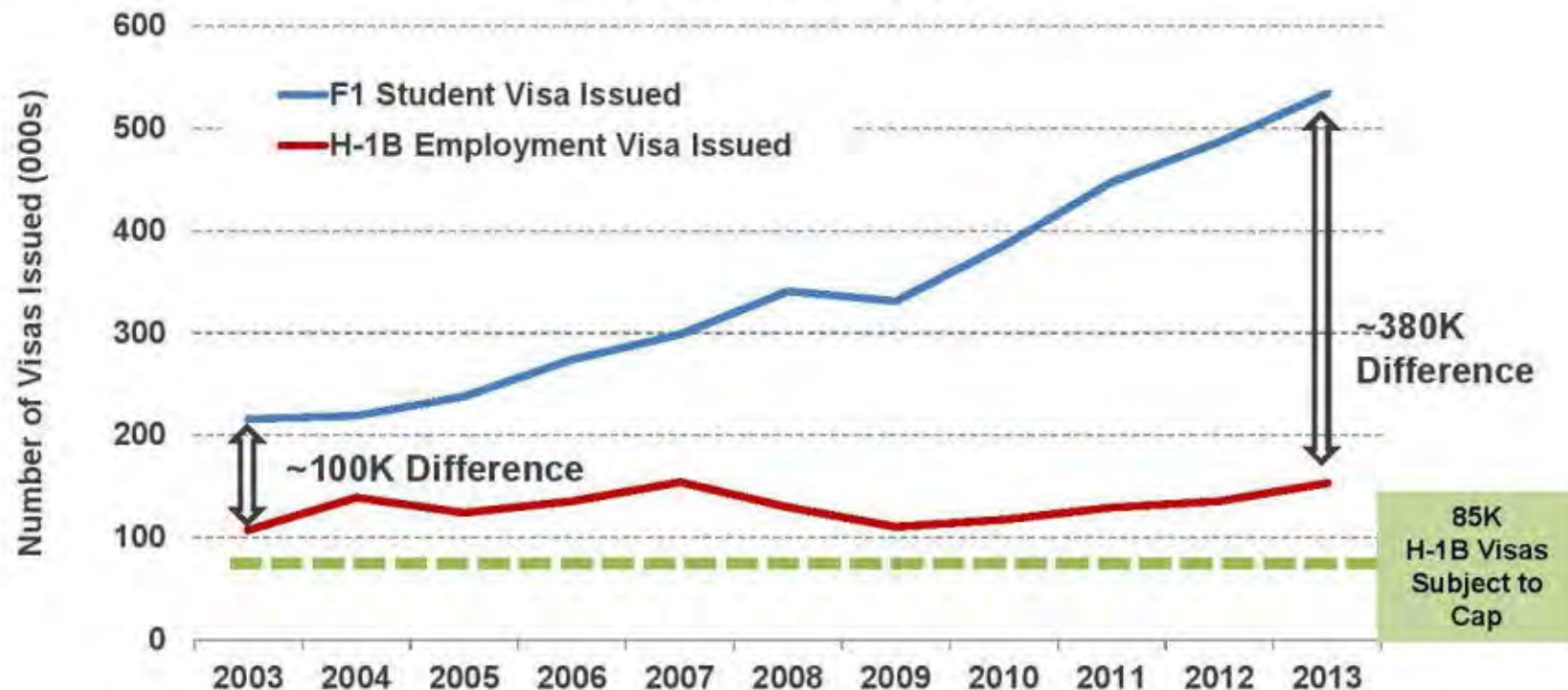
Rank	Company	Mkt Cap (\$MM)	LTM Rev (\$MM)	Employees	1st or 2nd Gen Immigrant Founder / Co-Founder	Generation
1	Apple	\$529,000	\$176,035	80,300	Steve Jobs	2nd-Gen, Syria
2	Google	376,536	62,294	47,756	Sergey Brin	1st-Gen, Russia
3	Microsoft	331,408	83,347	99,000	—	—
4	IBM	188,205	98,827	431,212	Herman Hollerith	2nd-Gen, Germany
5	Oracle	187,942	37,902	120,000	Larry Ellison / Bob Miner	2nd-Gen, Russia / 2nd-Gen, Iran
6	Facebook	157,448	8,916	6,337	Eduardo Saverin	1st-Gen, Brazil
7	Amazon.com	143,683	78,123	117,300	Jeff Bezos	2nd-Gen, Cuba
8	Qualcomm	134,827	25,712	31,000	Andrew Viterbi	1st-Gen, Italy
9	Intel	130,867	52,892	107,600	— *	—
10	Cisco	125,608	47,202	75,049	—	—
11	eBay	65,927	16,561	33,500	Pierre Omidyar	1st-Gen, France
12	Hewlett-Packard	63,903	111,820	317,500	William Hewlett	—
13	Priceline	62,767	7,133	9,500	Jay Walker	—
14	EMC	54,458	23,314	63,900	Roger Marino	2nd-Gen, Italy
15	Texas Instruments	49,920	12,303	32,209	Cecil Green / J. Erik Jonsson	1st-Gen, UK / 2nd-Gen, Sweden
16	VMware	41,549	5,376	14,300	Edouard Bugnion	1st-Gen, Switzerland
17	Automatic Data Processing	38,014	11,958	60,000	Henry Taub	2nd-Gen, Poland
18	Yahoo!	35,258	4,673	12,200	Jerry Yang	1st-Gen, Taiwan
19	salesforce.com	32,783	4,405	13,300	—	—
20	Adobe Systems	32,004	4,047	11,847	—	—
21	Cognizant Technology	29,583	9,245	171,400	Francisco D'souza / Kumar Mahadeva	1st-Gen, India** / 1st-Gen, Sri Lanka
22	Micron	29,253	13,310	30,900	—	—
23	Netflix	24,120	4,621	2,327	—	—
24	Intuit	22,595	4,426	8,000	—	—
25	Sandisk	21,325	6,341	5,459	Eli Haran	1st-Gen, Israel
Total Founded by 1st or 2nd Gen Immigrants		\$2,053,676	\$577,580	1,226,873		

Source: CapIQ, Factset as of 5/14. "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."

*Note: while Andy Grove (from Hungary) is not a co-founder of Intel, he joined as COO on the day it was incorporated. **Francisco D'souza is a person of Indian origin born in Kenya.

美国政府每年颁发的学生签证(F1)和雇员签证(H-1B)数量

Number of Student Visas (F1) vs. Employment (H-1B) Visas Issued per Year, 1992 – 2013



USA, INC. UPDATE

REPORT: http://www.kpcb.com/usainc/USA_Inc.pdf

VIDEO: <http://www.kpcb.com/insights/2011-usa-inc-video>

USA Inc. Income Statement, F2013 – Revenue (Taxes) +13%...Expenses -2%...-24% Net Margin

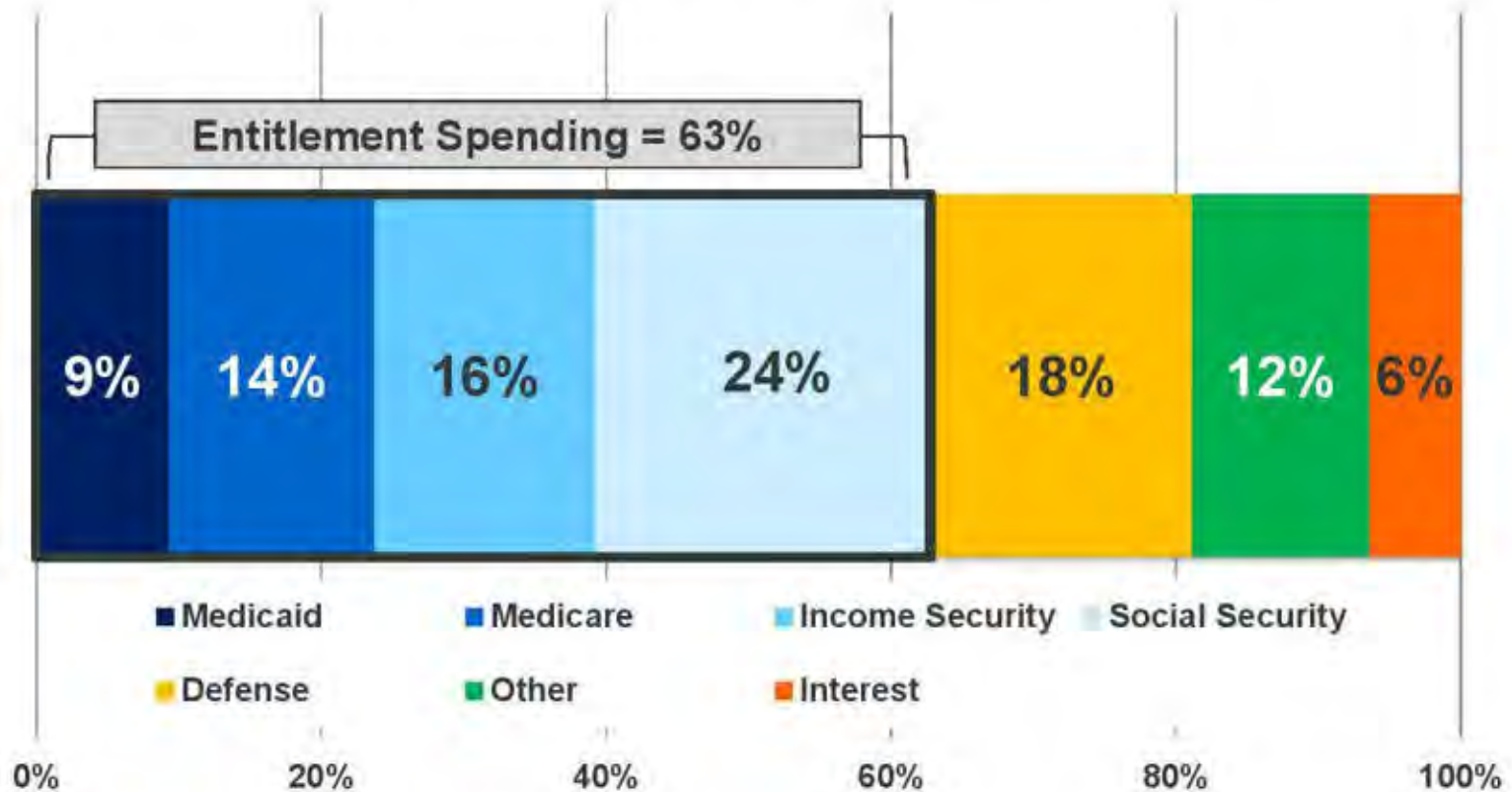
USA Inc. Profit & Loss Statement, F1998 / F2003 / F2008 / F2013

	F1998	F2003	F2008	F2013	Comments
Revenue (\$B)	\$1,722	\$1,783	\$2,524	\$2,775	On average, revenue grew 3% Y/Y over the past 15 years
Y/Y Growth	9%	-4%	-2%	13%	
Individual Income Taxes*	\$829	\$794	\$1,146	\$1,316	Largest driver of revenue
% of Revenue	48%	45%	45%	47%	
Social Insurance Taxes	\$572	\$713	\$900	\$948	Payroll tax on Social Security & Medicare
% of Revenue	33%	40%	36%	34%	
Corporate Income Taxes*	\$189	\$132	\$304	\$274	Fluctuates significantly with economic conditions
% of Revenue	11%	7%	12%	10%	
Other	\$133	\$144	\$174	\$237	Includes estate & gift taxes / duties & fees; relatively stable
% of Revenue	8%	8%	7%	9%	
Expense (\$B)	\$1,652	\$2,160	\$2,983	\$3,455	On average, expense grew 5% Y/Y over the past 15 years
Y/Y Growth	3%	7%	9%	-2%	
Entitlement / Mandatory	\$870	\$1,168	\$1,582	\$2,049	Significant increase owing to aging population and rising healthcare costs
% of Expense	53%	54%	53%	59%	
Non-Defense Discretionary	\$273	\$434	\$518	\$551	Includes education / law enforcement / transportation / general government
% of Expense	17%	20%	17%	16%	
"One-Time" Items	—	—	\$14	—	Includes discretionary spending on TARP, GSEs, and economic stimulus
% of Expense	—	—	0%	—	
Defense	\$268	\$405	\$616	\$633	Significant increase owing to on-going War on Terror
% of Expense	16%	19%	21%	18%	
Net Interest on Public Debt	\$241	\$153	\$253	\$221	Decreased owing to historic low interest rates
% of Expense	15%	7%	8%	6%	
Surplus / Deficit (\$B)	\$69	-\$377	-\$459	-\$680	USA Inc. median net margin between 1998 & 2013 = -16%
Net Margin (%)	4%	-21%	-18%	-24%	

Where Your Tax Dollars Go –

Entitlements as % of Government Spending = 63% vs. 59% Y/Y

% of USA Federal Government Spending, 2013

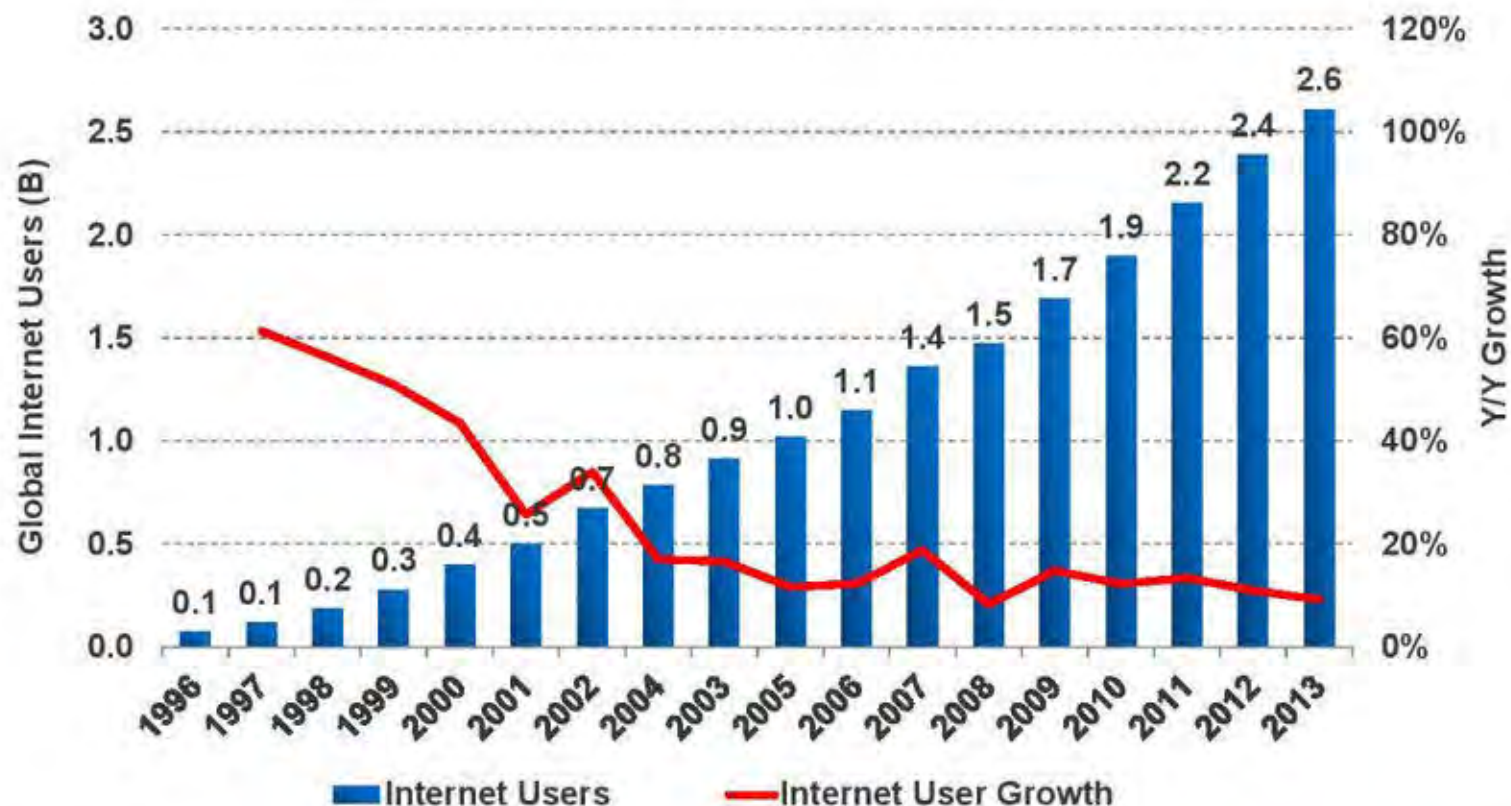


KEY INTERNET TRENDS

互联网数量增长趋势：

2012年增长11%，2013年增长9%，增长放缓

Global Internet Users, 1996 – 2013 (B)



互联网普及率高于45%的国家：网民增速放缓

Countries with Internet Penetration >45%, 2013

Rank	Country	2013 Internet Users (MMs)	2013 Internet User Growth	2012 Internet User Growth	Population Penetration	Total Population (MMs)
1	China	618	10%	10%	46%	1,350
2	USA	263	2	2	83	316
3	Japan	101	0	1	79	127
4	Brazil	100	12	12	50	201
5	Russia	76	9	14	53	143
6	Germany	68	1	1	84	81
7	United Kingdom	55	1	3	87	63
8	France	55	5	4	83	66
9	Iran	45	16	19	56	80
10	South Korea	41	1	0	84	49
11	Turkey	36	6	9	45	81
12	Italy	36	2	6	58	61
13	Spain	34	7	3	72	47
14	Canada	30	5	4	87	35
15	Poland	25	0	4	65	38
Top 15		1,583	6%	7%	58%	2,739
World		2,609	9%	11%	37%	7,098

互联网普及率低于45%的国家：网民增速较快

Countries with Internet Penetration ≤45%

Rank	Country	2013 Internet Users (MMs)	2013 Internet User Growth	2012 Internet User Growth	Population Penetration	Total Population (MMs)
1	India	154	27%	36%	13%	1,221
2	Indonesia	71	13	15	28	251
3	Nigeria	57	19	21	33	173
4	Mexico	46	11	14	38	119
5	Philippines	38	27	18	36	106
6	Egypt	38	13	29	44	85
7	Vietnam	37	14	16	39	92
8	South Africa	20	20	41	41	49
9	Pakistan	19	12	14	10	193
10	Thailand	18	12	6	27	67
11	Ukraine	15	17	22	34	45
12	Kenya	14	17	105	32	44
13	Venezuela	13	11	9	44	28
14	Peru	11	7	5	38	30
15	Uzbekistan	10	22	52	37	29
Top 15		560	18%	24%	22%	2,532
World		2,609	9%	11%	37%	7,098

Established 'Big' Smartphone Markets (USA / Japan / UK / Germany / Korea) = +17% Growth in 2013 = Slowing, Well Past 50% Penetration

Markets with >45% Penetration

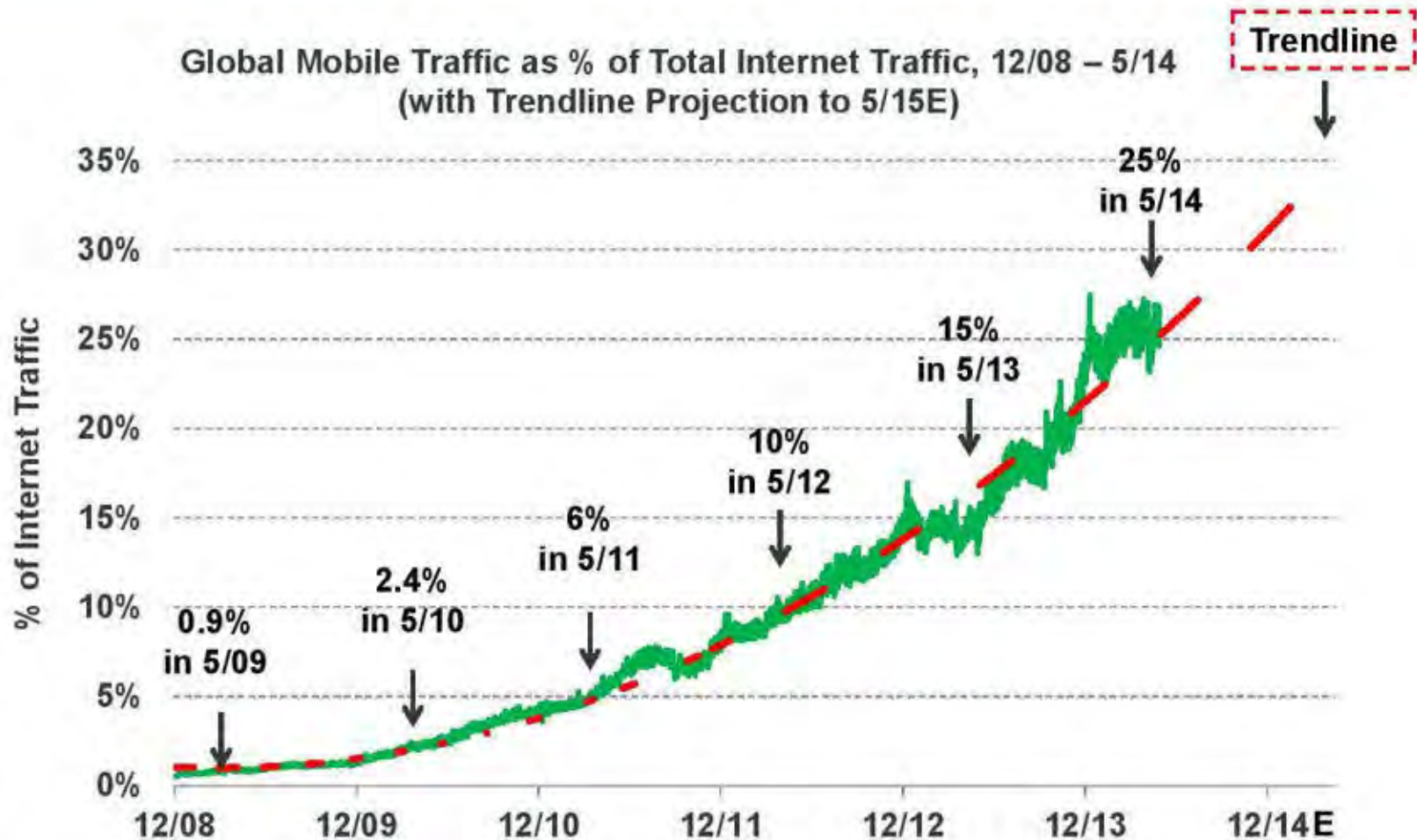
Rank	Country	2013 Smartphone Subs (MMs)	2013 Smartphone Sub Growth	Population Penetration	Total Population (MMs)	2014E Smartphone Sub Growth
1	USA	188	21%	59%	316	12%
2	Japan	99	5	78	127	5
3	UK	43	18	68	63	12
4	Germany	40	34	49	81	31
5	Korea	38	18	79	49	5
6	France	33	29	50	66	21
7	Saudi Arabia	30	20	110	27	15
8	Poland	22	29	57	38	24
9	Australia	19	20	85	22	12
10	Canada	18	21	53	35	15
11	Malaysia	16	23	54	30	21
12	Netherlands	12	18	69	17	13
13	Taiwan	11	23	49	23	27
14	Sweden	9	10	94	10	4
15	UAE	9	20	160	5	14
Top 15		588	19%	65%	910	13%
World		1,786	28%	25%	7,098	24%

Developing 'Big' Smartphone Markets (China / India / Brazil / Indonesia / Russia) = +32% Growth in 2013 = Strong, Material Penetration Upside Remains

Markets with ≤45% Penetration

Rank	Country	2013 Smartphone Subs (MMs)	2013 Smartphone Sub Growth	Population Penetration	Total Population (MMs)	2014E Smartphone Sub Growth
1	China	422	26%	31%	1,350	19%
2	India	117	55	10	1,221	45
3	Brazil	72	38	36	201	30
4	Indonesia	48	42	19	251	36
5	Russia	46	30	33	143	27
6	Mexico	22	49	19	119	39
7	Egypt	21	41	25	85	36
8	Italy	21	33	34	61	41
9	Spain	21	20	44	47	17
10	Philippines	20	43	19	106	36
11	Nigeria	20	43	12	173	39
12	South Africa	20	32	41	49	27
13	Thailand	18	27	27	67	24
14	Turkey	18	32	22	81	28
15	Argentina	17	40	41	43	34
Top 15		905	33%	23%	3,996	28%
World		1,786	28%	25%	7,098	24%

移动流量占整体互联网流量的比例



PUBLIC COMPANY TRENDS

Financial Philosophy – Michael Marks (Stanford GSB)

- 1) **Three Ways to Get Capital into Company** – Sell stock, borrow money, earn it. Earn it is best!
- 2) **Balance Sheets Matter** – Without a balance sheet, it's hard to understand where a company stands.
- 3) **Great Companies Grow Revenue, Make Profits *and* Invest for Future** – Companies that do just 2 of 3 are signing up for being just 'OK,' not 'great.'
- 4) **Companies Learn to Make Money *or* Not** – Companies that make money generally continue to do so, companies that don't make money generally continue that also. It becomes core to 'culture.'

Tech Companies = Top 1 or 2 Sector by Market Cap in S&P500 for Nearly 2 Decades

20 Years Ago:

Dec 1994 – S&P500 = \$3.2T

Sector	Weight	Largest Companies
CONS. STAPLES	14%	COCA-COLA ALTRIA
CONS. DISC.	13%	MOTORS LIQUIDATION FORD
INDUSTRIALS	13%	GENERAL ELECTRIC 3M
FINANCIALS	11%	AIG FANNIE MAE
TECHNOLOGY	11%	IBM MICROSOFT
HEALTHCARE	10%	MERCK JOHNSON & JOHNSON
ENERGY	9%	EXXON MOBIL
TELECOM	8%	SOUTHWESTERN BELL GTE
MATERIALS	7%	DUPONT DOW CHEMICAL
UTILITIES	4%	SOUTHERN COMPANY DUKE ENERGY

Peak of NASDAQ:

Mar 2000 – S&P500 = \$11.7T

Sector	Weight	Largest Companies
TECHNOLOGY	35%	MICROSOFT CISCO
FINANCIALS	13%	CITIGROUP AIG
CONS. DISC.	10%	TIME WARNER HOME DEPOT
HEALTHCARE	10%	MERCK PFIZER
INDUSTRIALS	8%	GENERAL ELECTRIC TYCO
TELECOM	7%	SOUTHWESTERN BELL AT&T
CONS. STAPLES	7%	WAL-MART COCA-COLA
ENERGY	5%	EXXON MOBIL CHEVRON
MATERIALS	2%	DUPONT ALCOA
UTILITIES	2%	DUKE ENERGY AES

Today:

May 2014 – S&P500 = \$17.4T

Sector	Weight	Largest Companies
TECHNOLOGY	19%	APPLE GOOGLE
FINANCIALS	16%	WELLS FARGO JPMORGAN CHASE
HEALTHCARE	13%	JOHNSON & JOHNSON PFIZER
CONS. DISC.	12%	AMAZON.COM WALT DISNEY
INDUSTRIALS	11%	GENERAL ELECTRIC UNITED TECHNOLOGIES
CONS. STAPLES	11%	WAL-MART PROCTOR & GAMBLE
ENERGY	10%	EXXON MOBIL CHEVRON
MATERIALS	3%	DUPONT MONSANTO
UTILITIES	3%	DUKE ENERGY NEXTERA ENERGY
TELECOM	2%	VERIZON AT&T

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INTERNET TRENDS 2014

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