



Initiative on the Digital Economy

Platforms: How Change in Industry Is Driving Change in Strategy

Marshall Van Alstyne



高橋

The transition to Internet era firms resembles the transition to Industrial era firms ... but for different reasons

Why are the old competitors *not* the new competitors?

Isn't afraid of ...



publishing



broadcast



TOSHIBA

electronics



delivery

FedEx



cars



swatch[®]+

watches

TIMEX

but should fear ...

amazon

NETFLIX



+

Google

facebook



SAMSUNG

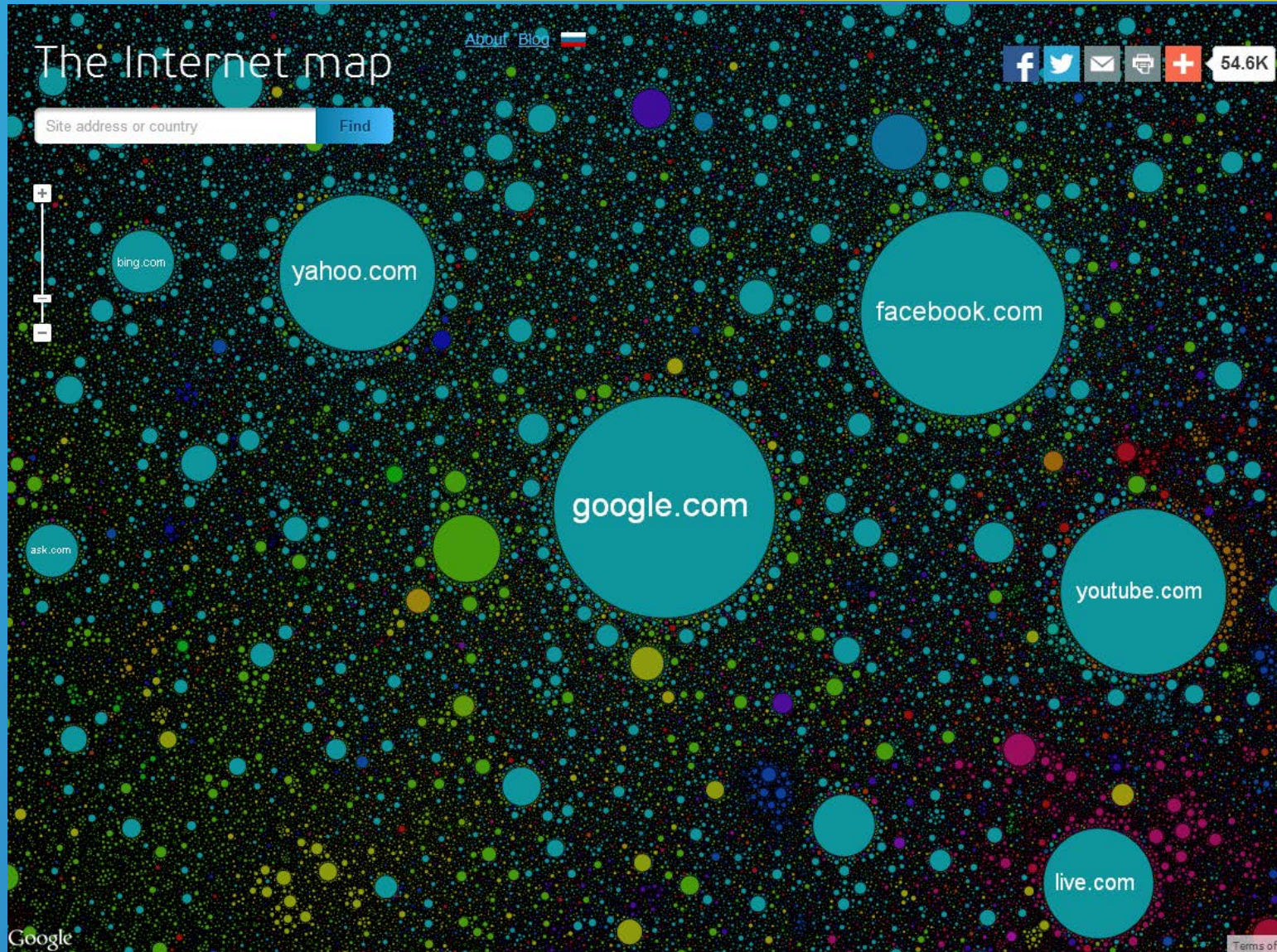
InterBrand: Global Brands

1  +28% \$98,316 \$m TOP RISER	2  +34% \$93,291 \$m TOP RISER	3  +2% \$79,213 \$m	4  +4% \$78,808 \$m	5  +3% \$59,546 \$m	6  +7% \$46,947 \$m							
7  +5% \$41,992 \$m	8  +20% \$39,610 \$m	9  -5% \$37,257 \$m	10  +17% \$35,346 \$m	11  +6% \$31,904 \$m	12  +10% \$31,839 \$m	13  +7% \$29,053 \$m	14  +3% \$28,147 \$m	15  -1% \$25,843 \$m	16  +1% \$25,105 \$m	17  +6% \$24,893 \$m	18  +9% \$24,088 \$m	
19  +27% \$23,620 \$m TOP RISER	20  +7% \$18,490 \$m	21  +10% \$18,168 \$m	22  +8% \$17,892 \$m	23  +12% \$17,646 \$m	24  +13% \$17,085 \$m	25  +7% \$16,676 \$m	26  +8% \$13,818 \$m	27  +5% \$13,763 \$m	28  +20% \$13,162 \$m	29  +15% \$13,035 \$m	30  +8% \$12,987 \$m	31  +6% \$12,614 \$m

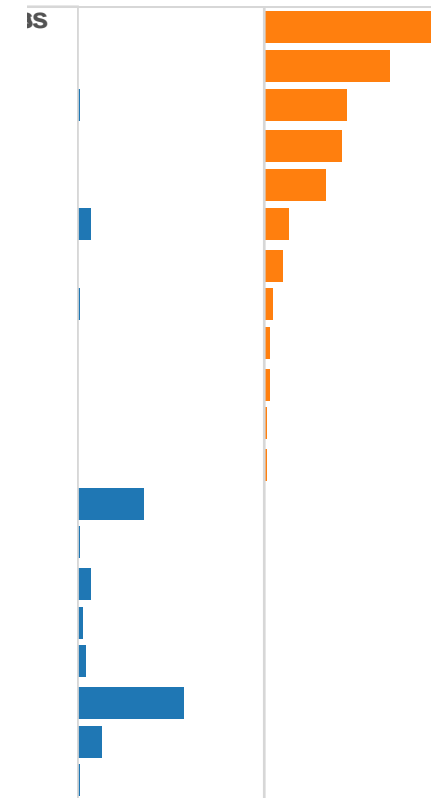
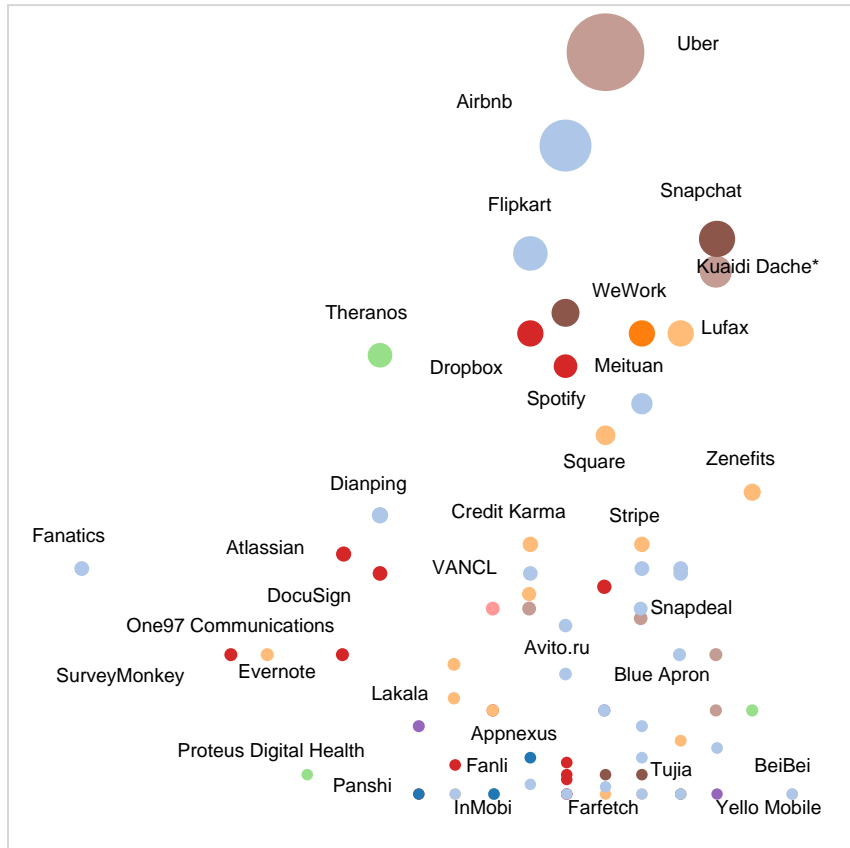
These are Platforms



Dominated by Platforms



Platforms = 80 of 115 firms worth \$1,000,000,000+



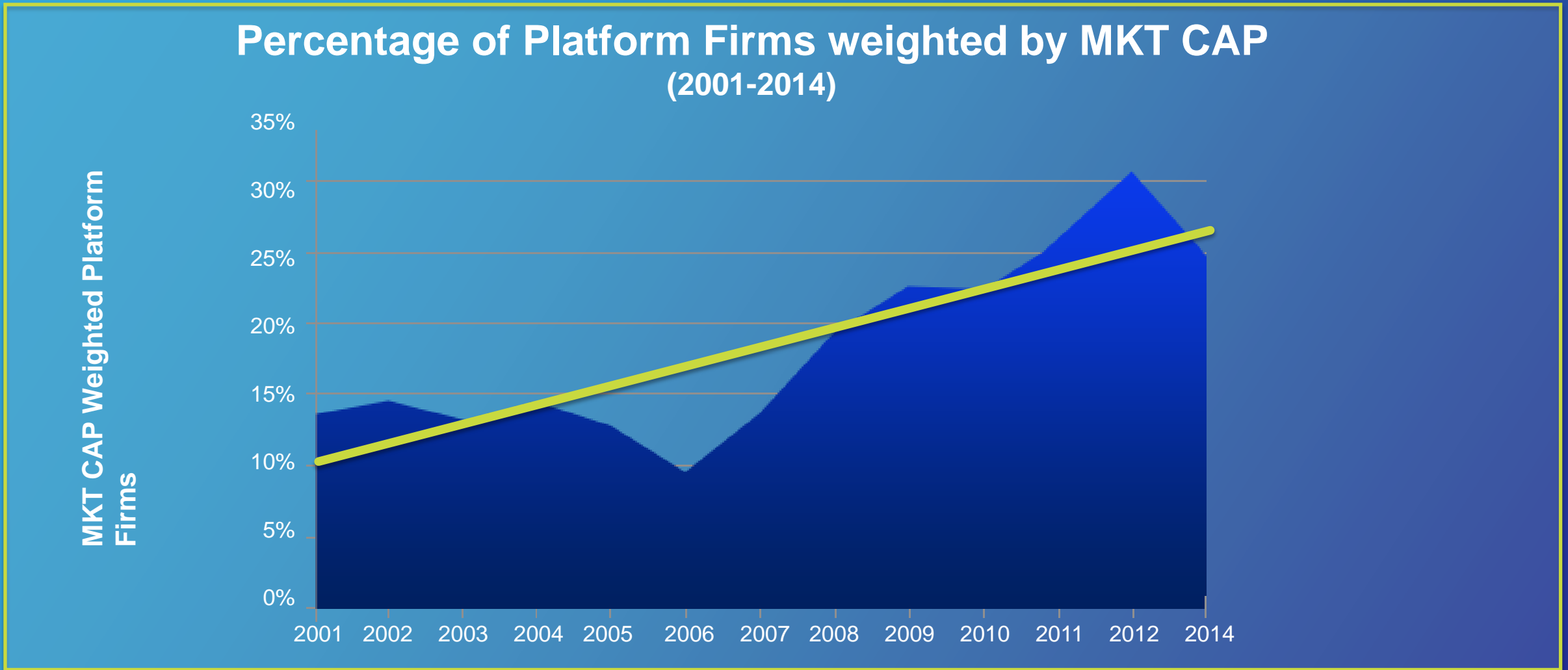
Source: P. Evans, CGE; CB Insights, Capital IQ, CrunchBase, 2015

Platform Firms Becoming More Important in Economy

FIRM	MARKET CAP
Apple	627
Exxon Mobile	385
Microsoft	377
Berkshire Hathaway	357
Google	344

3 of top 5 firms in 2015 by market cap.

Platform Firms Becoming More Important in Economy



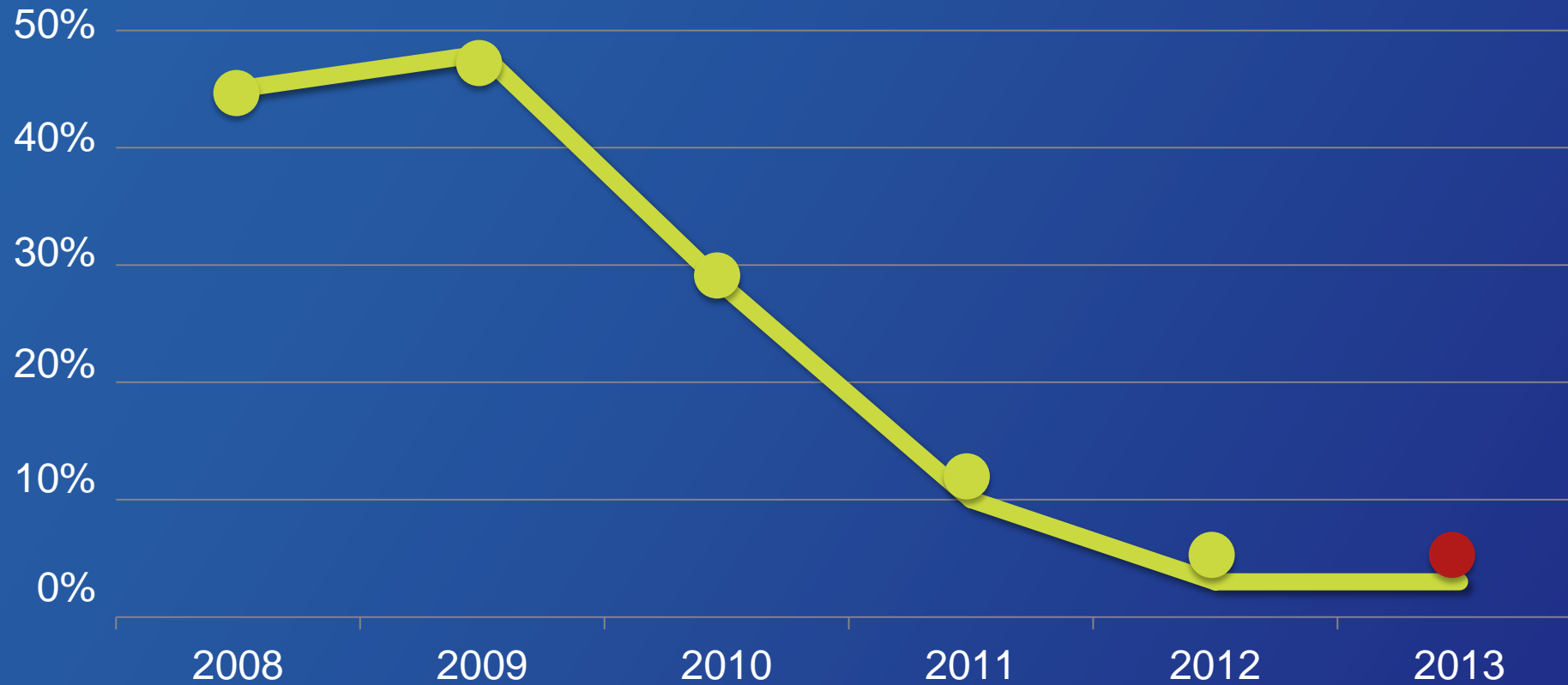
% of top 20 firms by market cap since 2001

The Product Business Model is Broken



The Product Business Model is Broken

In 2009, BlackBerry had nearly 50% market share in U.S. operating systems, according to IDC. Now: 2.1%



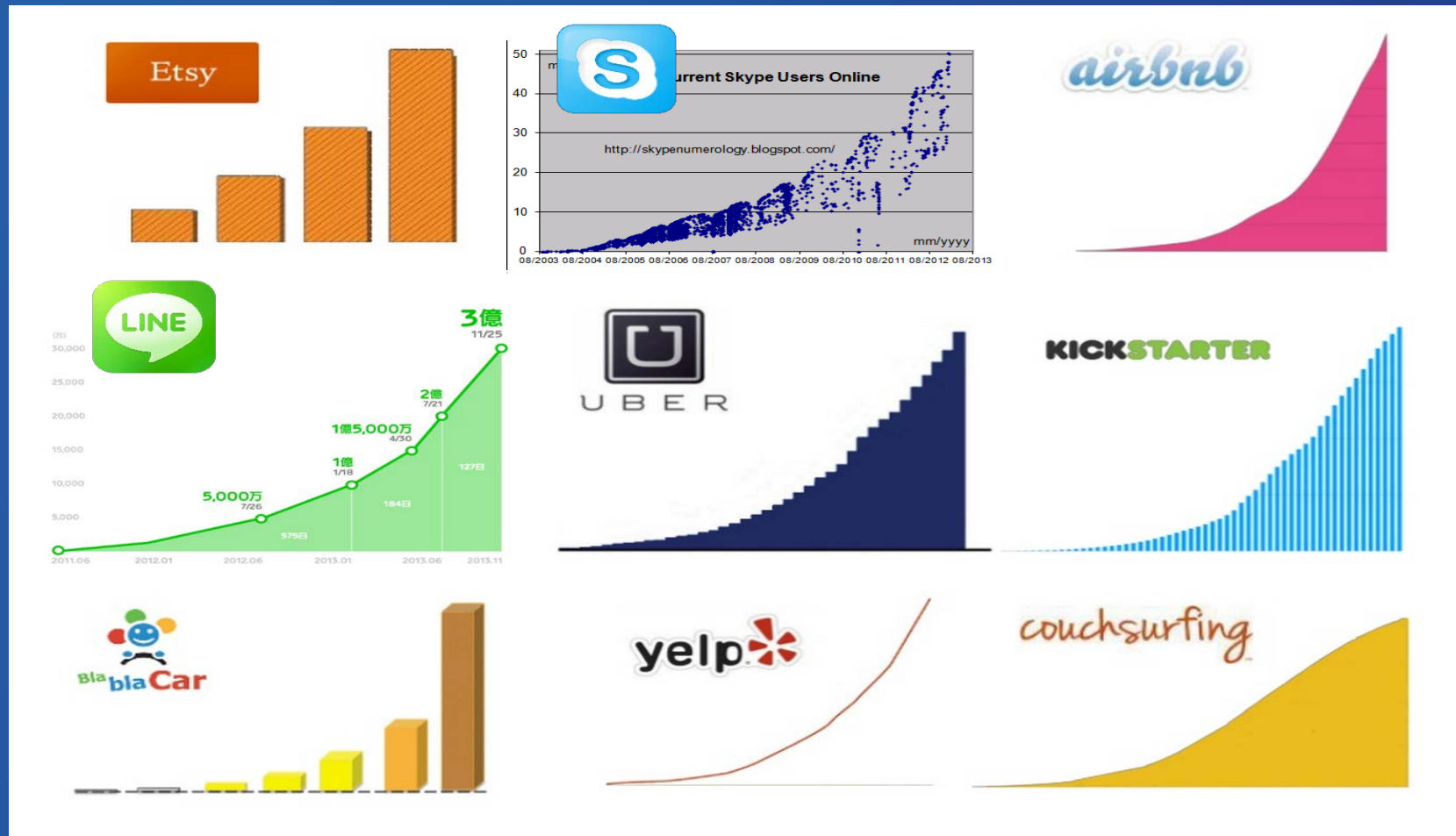
1980-2000 Microsoft Platform Beats Apple Product



Apple launched the PC revolution but Microsoft licensed widely, built a huge developer ecosystem, 6X larger.

Network Effects: Users create value for Users

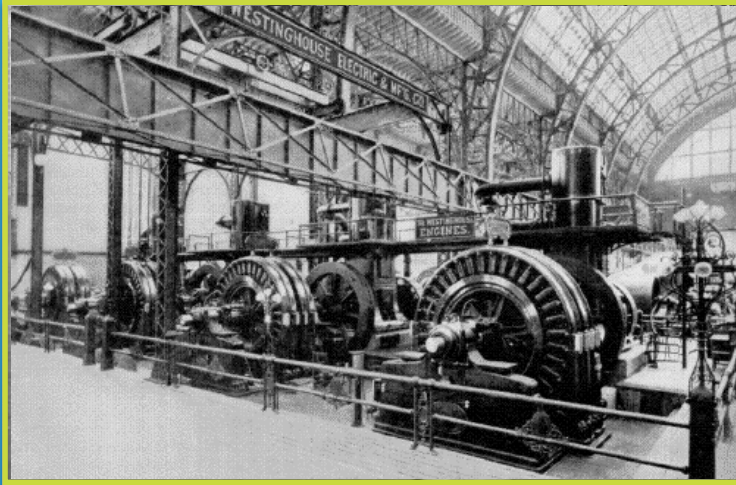
@InfoEcon



The giants of the Internet era resemble those of the Industrial era but for the opposite reason.

Giants of Supply Side Economies of scale

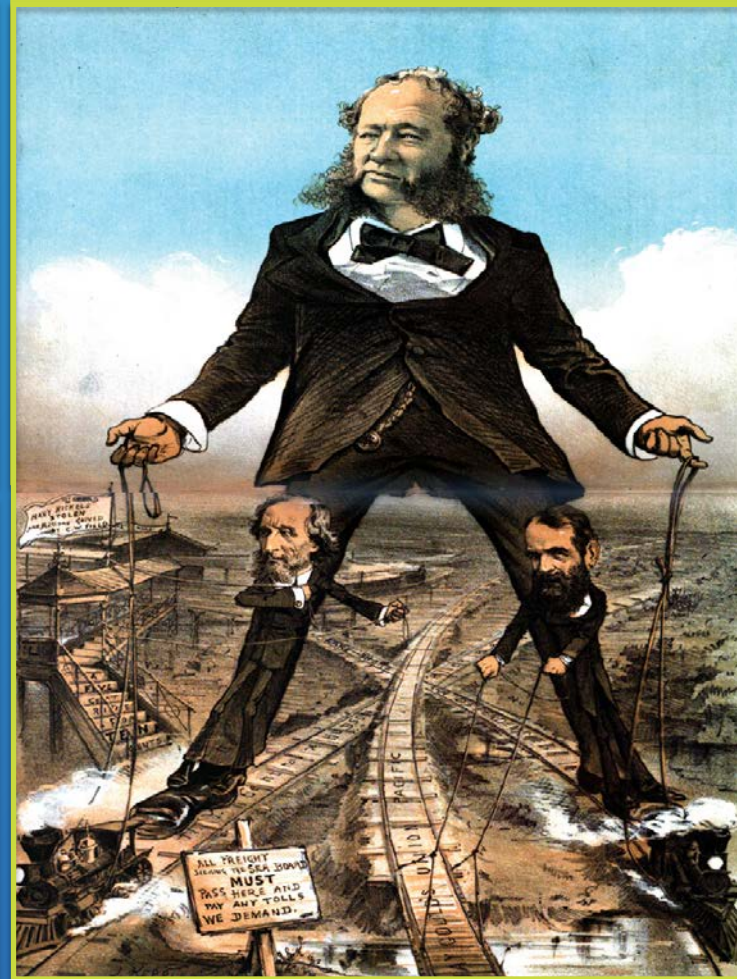
Electric
Dynamo
1893



Ford Model T
1908



Acklam Ironworks
1924



Standard Oil
1909
Cossus of
(Rail) Roads

Giants of *Demand Side Economies of scale*

Windows OS



Mobile



Merchant Mkts



Social Networks



高心匠

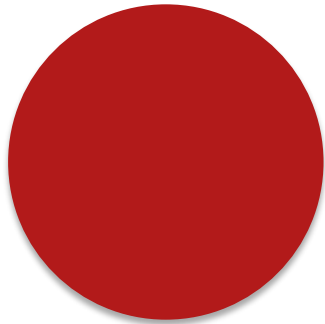
In any market with network effects, the focus of
Reason: You can't scale network effects inside as
attention must shift from inside to outside the firm.
easily as outside.

What Changes :: Marketing

Businesses shift from outbound messaging to inbound servicing

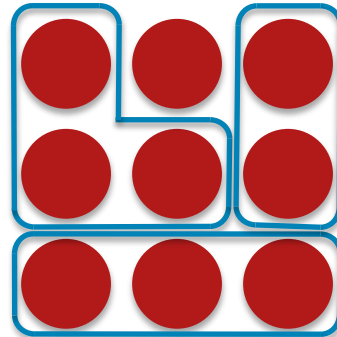
Four Decades of Consumer Marketing

1980's



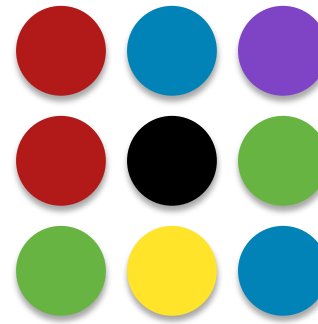
Single
Message

1990's



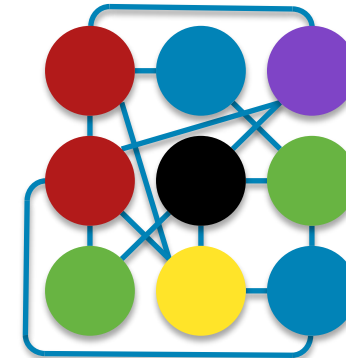
Segmentation

2000's



Individual
Targeting

2010's

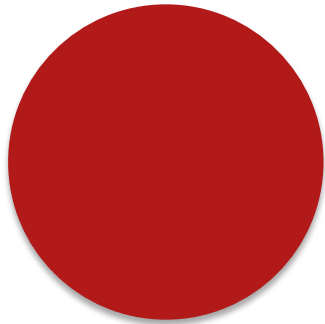


Virality / Social
Influence

Source: Rob Cain, CIO Coca Cola Company

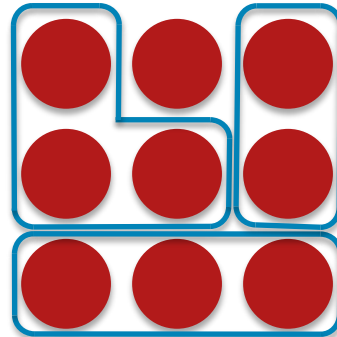
Four Decades of Consumer Marketing

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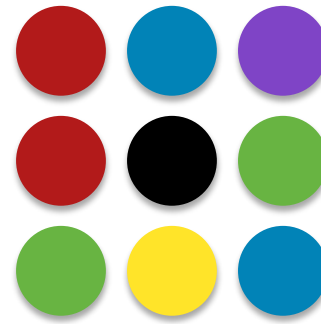
Single
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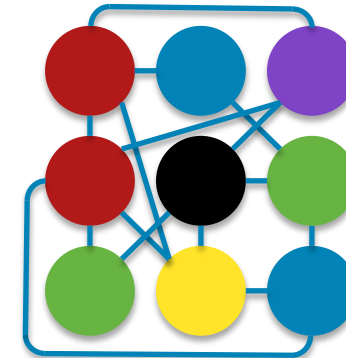
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2000's

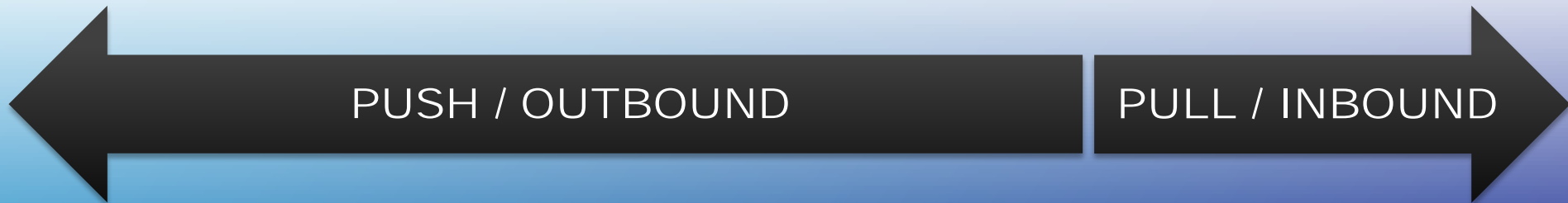


Individual
Targeting

2010's



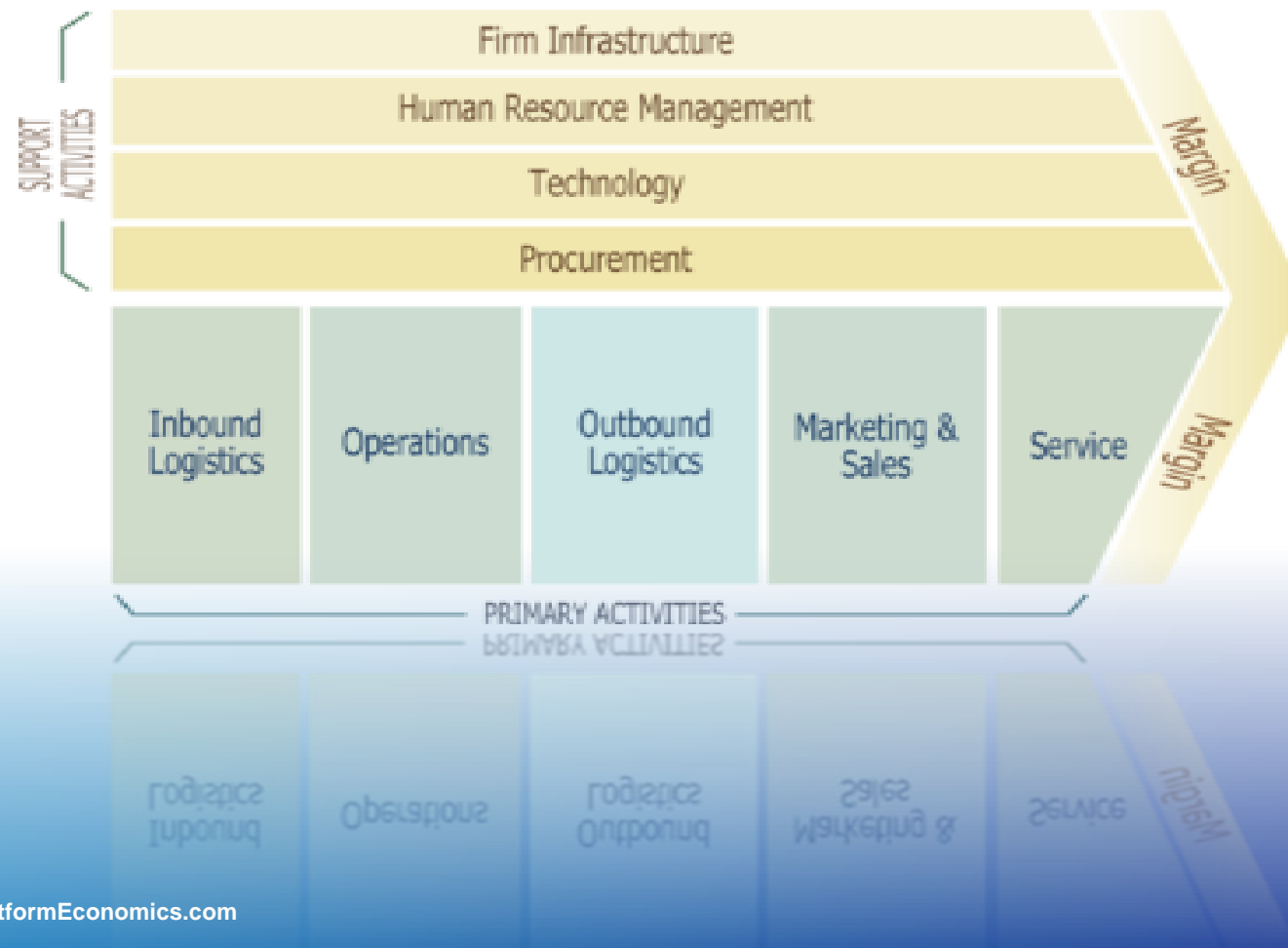
Virality / Social
Influence



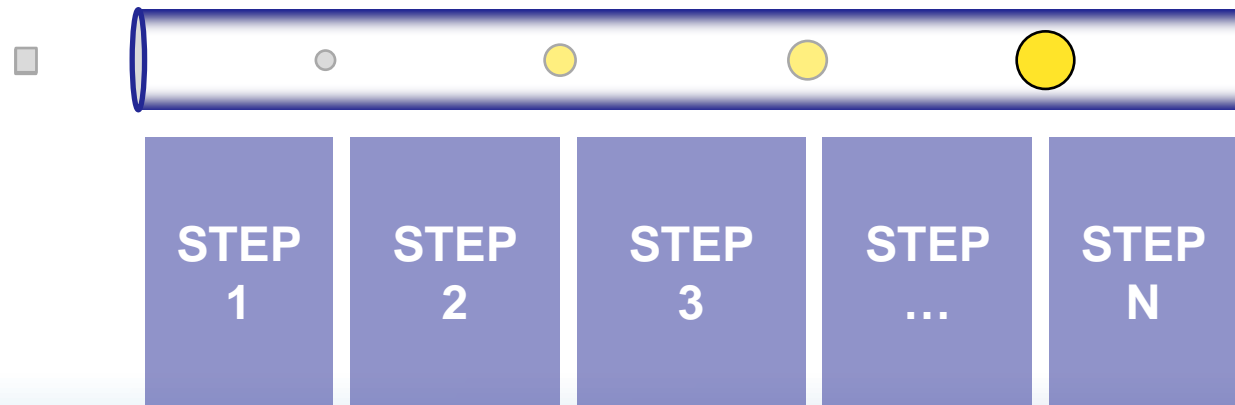
What Changes :: Operations & Logistics

Value creation shifts from internal to external servicing

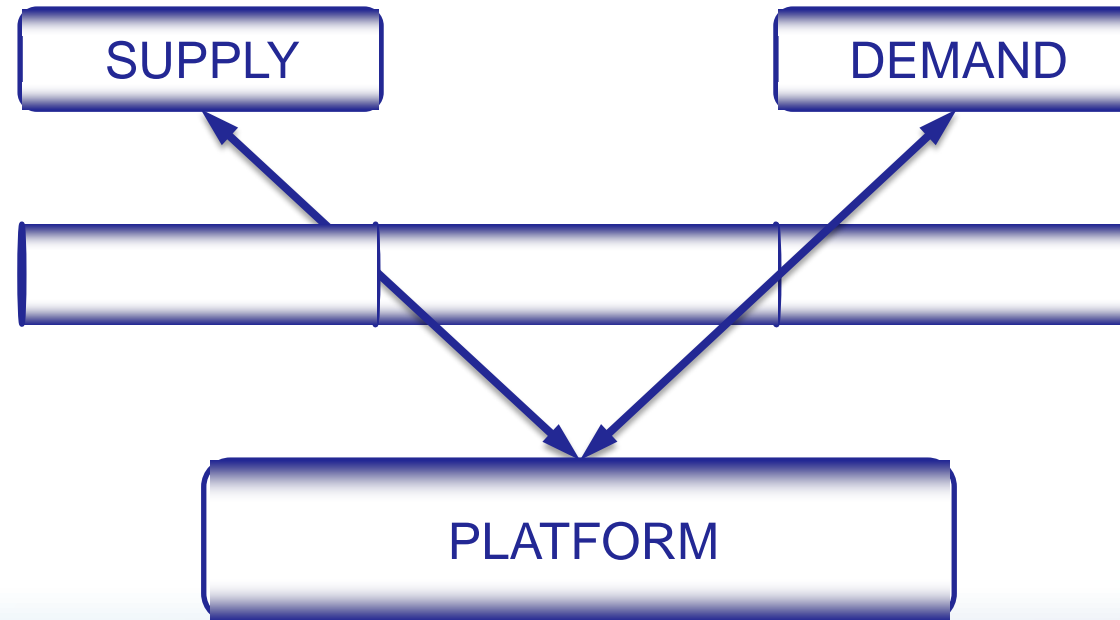
Value creation inside versus outside



Value creation inside versus outside



Value creation inside versus outside



“In 2015, Uber, the world’s largest taxi company owns no vehicles, Facebook the world’s most popular media owner creates no content, Alibaba the most valuable retailer has no inventory, and Airbnb the world’s largest hotelier owns no real estate.”



Tom Goodwin, Sr. VP of Strategy Havas Media

What Changes :: Finance

Shift from valuing assets to also valuing interactions



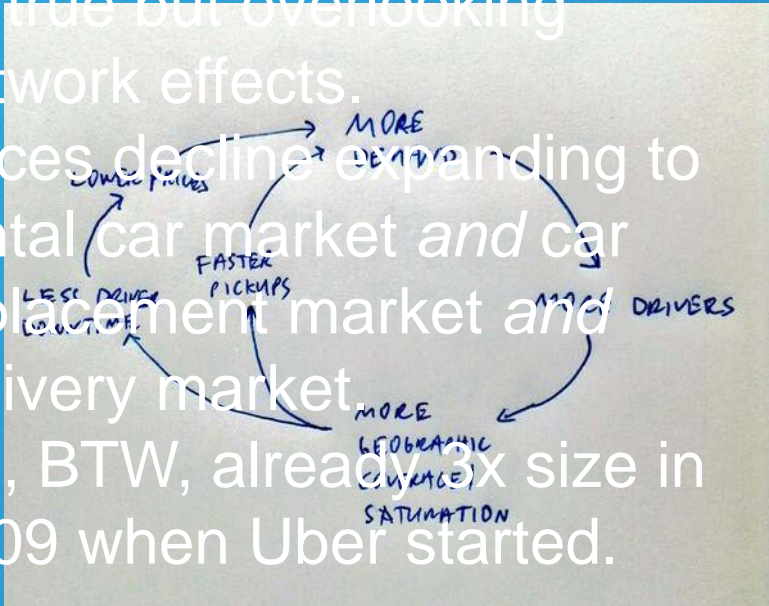
- Estimate global taxi market
 - Estimate market share
- Est. risk adjusted cash flow
 - Consider proprietary methods, barriers to competition
- ***Value: \$5.9 Billion***

Aswath Damodaran: NYU Finance professor, Corporate Valuation author, Herb Simon Prize.

Twitter: @InfoEcon :: marshall@mit.edu :: PlatformEconomics.com

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- All true but overlooking network effects.
- Prices decline expanding to rental car market *and* car replacement market *and* delivery market.
- Oh, BTW, already 3x size in 2009 when Uber started.



• **Value: \$17 Billion**

Source: David Sacks, COO PayPal, CEO Yammer

Bill Gurley: Venture Capitalist, OpenTable, Zillow, Uber

What Changes :: Innovation

Platforms Open Themselves to Third Party Contributions

A platform is a system that can be... adapted to countless needs and niches that the platform's original developers could not possibly have contemplated..."

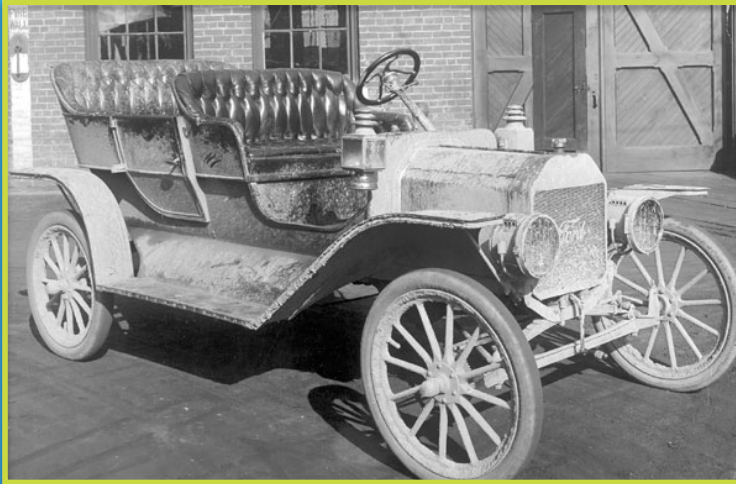


Source: "The 3 kinds of Platform you Meet on the Internet" – Sept 16, 2007.

*Mark Andreessen: Venture Capitalist, Netscape
Founder, Board HP, eBay*

It's Working when Users do Something You Didn't Expect

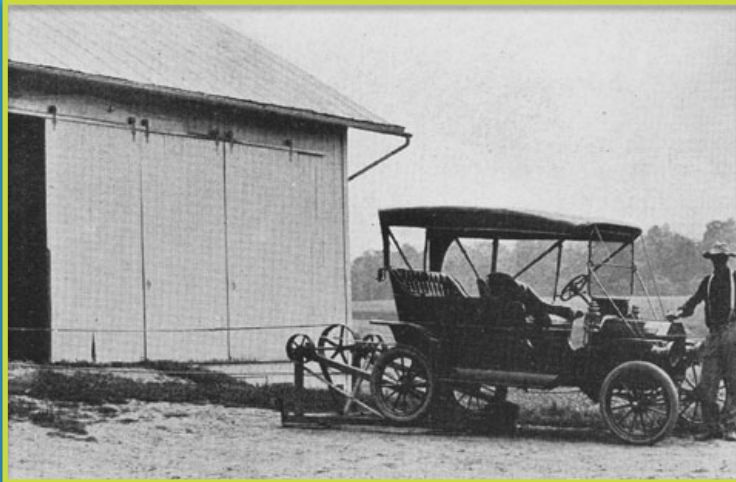
Ford Model T



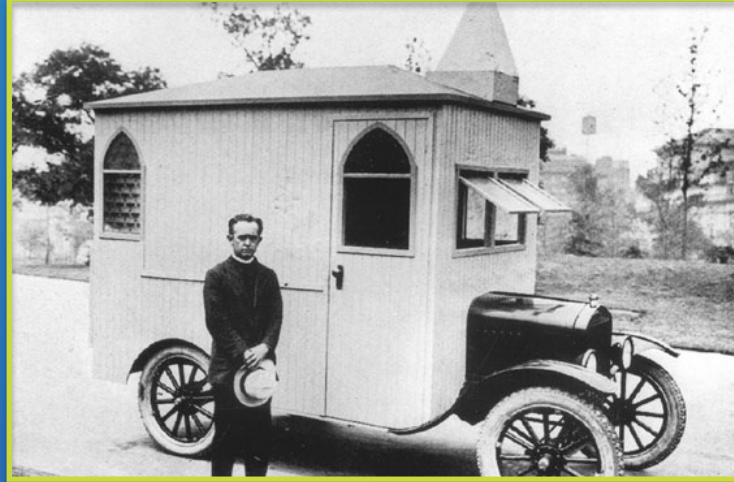
Hay Carrier



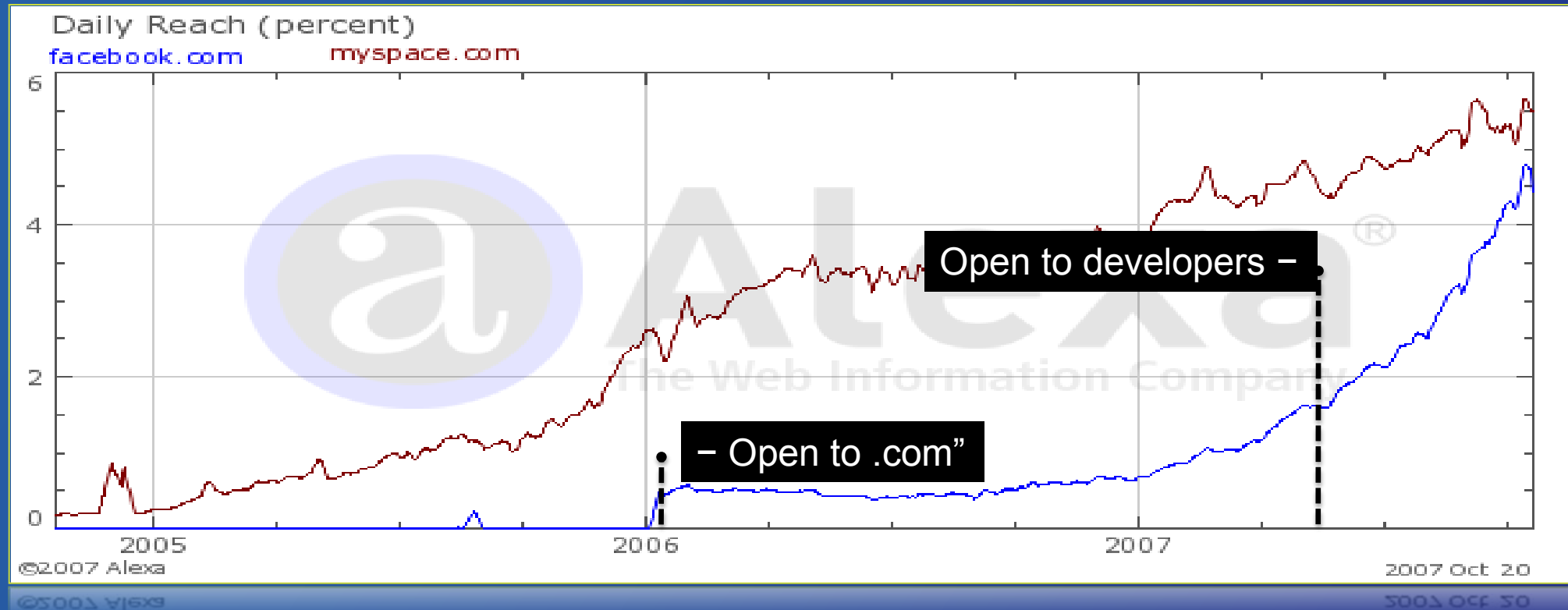
Flour Mill



Mobile Church



Does Openness Work?



The Rise & Ignominious Fall of MySpace – Business Week 2011

Does Openness Work?

“We tried to create every feature in the world and said, ‘O.K., we can do it, why should we let a third party do it?’ “ says (MySpace cofounder) DeWolfe.

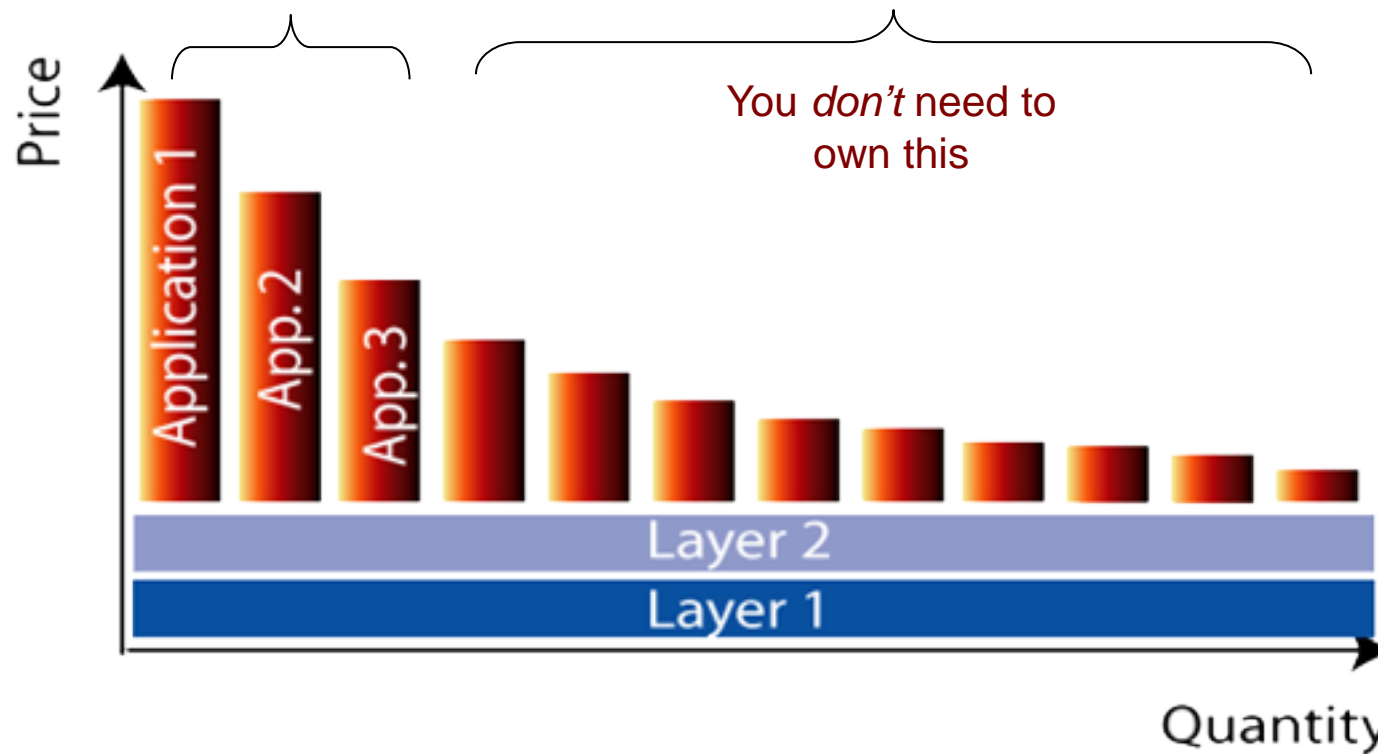
“We should have picked 5 to 10 key features that we totally focused on and let other people innovate on everything else.”

The Rise & Ignominious Fall of MySpace – Business Week 2011

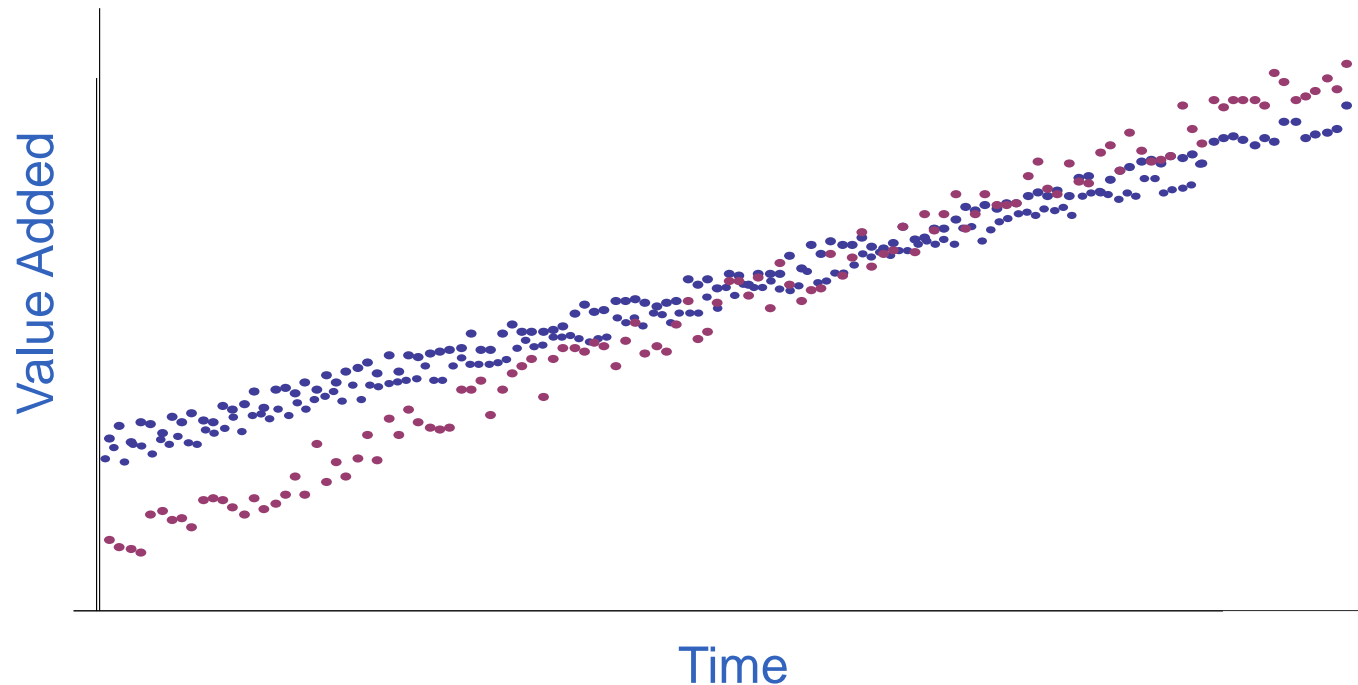
Platforms Get Enormous Value from 3rd Party Developers

Most firms can only concentrate on most valuable apps

Profits increase when others add to platform's Long Tail



Why Platforms Beat Products



Consider product innovation alone

Adding 3rd party resources,
innovation occurs at a higher rate

Even if a platform starts behind, its
value overtakes the product leader

Shed costs, keep 30% gains!

What Changes :: Strategy

Goal shifts from control, entry barriers, and differentiation to more valuable market exchanges.

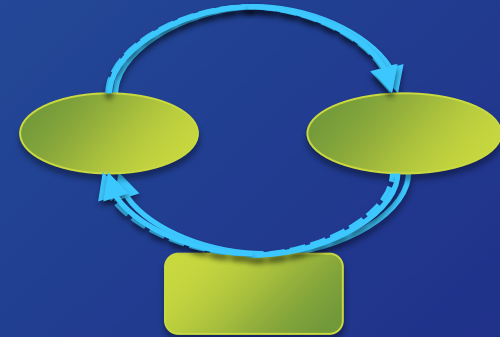
Porter's Five Forces & Resource Based View

1. Goal is a protected market niche, emphasizing industry barriers
2. Categories are sharp
3. Weapon is cost leadership or product differentiation
4. Inimitable resources you own provide sustained advantage
5. Core competence: focus what you do best



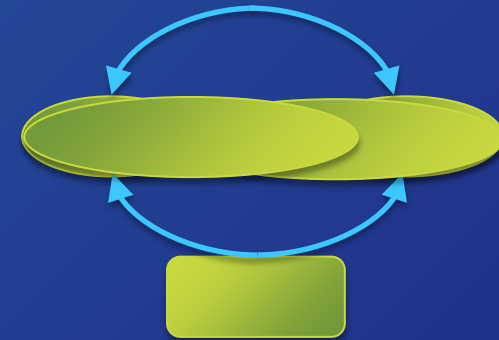
Platform Strategy Differs

1. Goal is transactions volume & creating customer value. Network effects provide sustainability



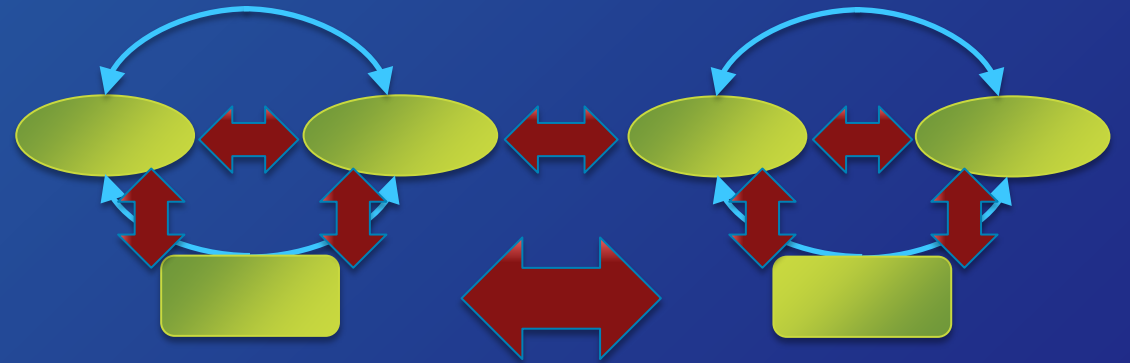
Platform Strategy Differs

1. Goal is transactions volume & creating customer value. Network effects provide sustainability.
2. Boundaries can be altered



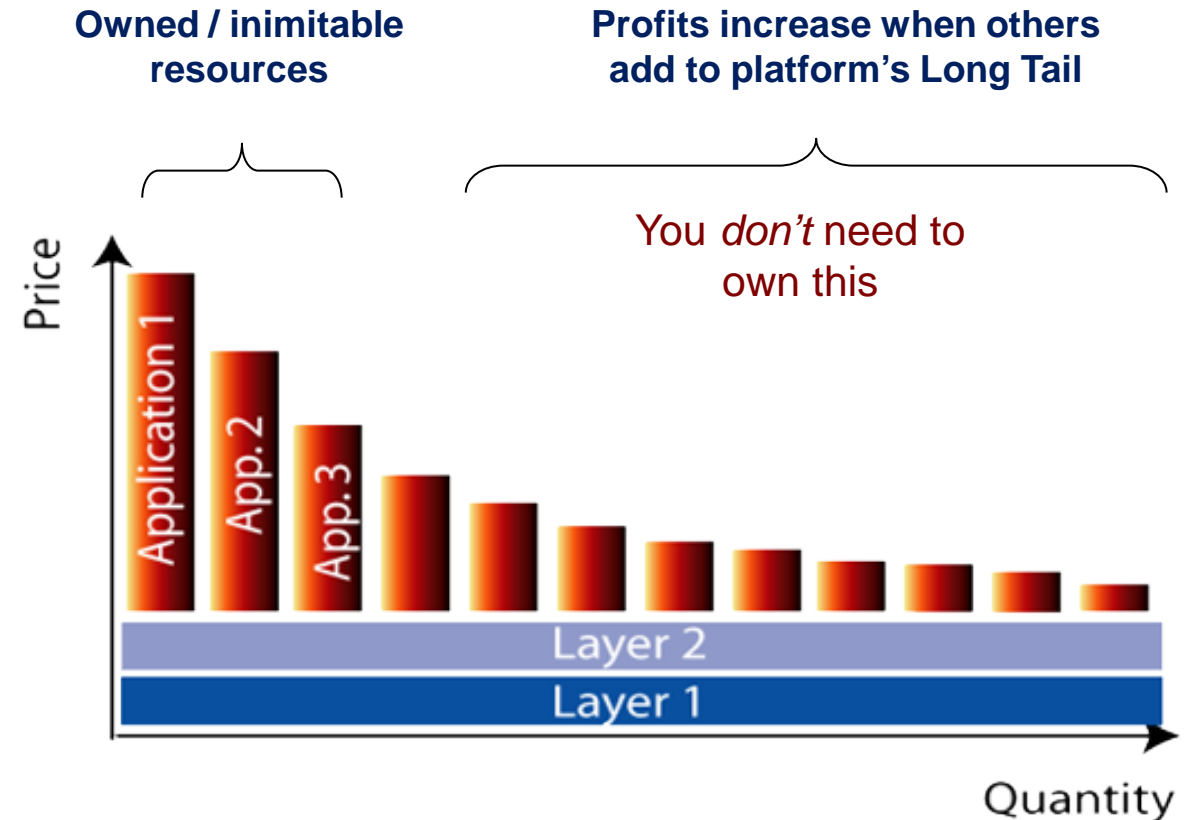
Platform Strategy Differs

1. Goal is transactions volume & creating customer value. Network effects provide sustainability.
2. Boundaries can be altered
3. Competition is multi-layered, more like 3D chess.



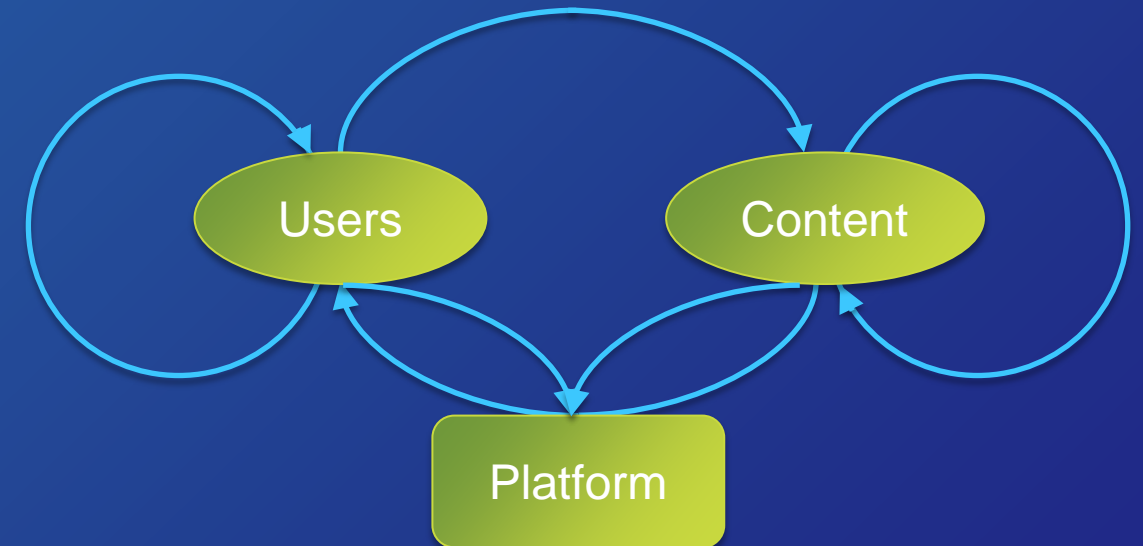
Platform Strategy Differs

1. Goal is transactions volume & creating customer value. Network effects provide sustainability.
2. Boundaries can be altered
3. Competition is multi-layered, more like 3D chess.
4. *Don't* need to own inimitable resources. Have them join you!



Data Analytics: Platforms optimize ecosystems not just products

1. Help content consumers find content creators e.g. songs or apps
2. Help content creators find content consumers e.g. unmet market needs
3. Benchmark users e.g. how well do gamers interact
4. Benchmark developers e.g. how well are their apps doing vis-à-vis other developers
5. Analyze user/developer types for excessive costs or needs investment or profit potential



Why are the old competitors *not* the new competitors?

Isn't afraid of ...



publishing



broadcast



TOSHIBA

electronics



delivery



cars



swatch[®]

watches



but should fear ...

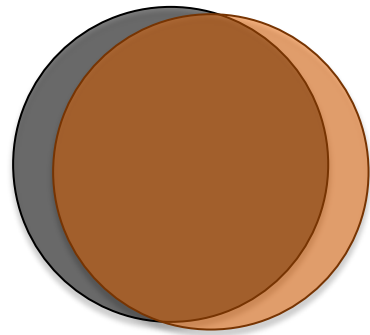


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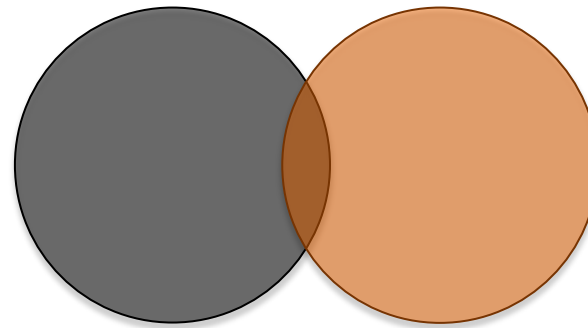


Firms use *product feature overlap* to find and benchmark competition (differentiate).

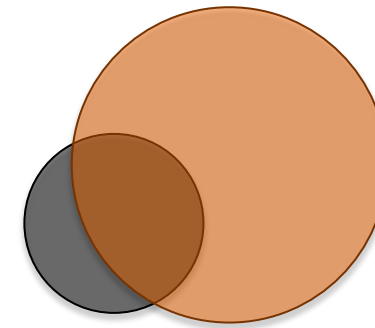
Product
Features



Zune / iPod

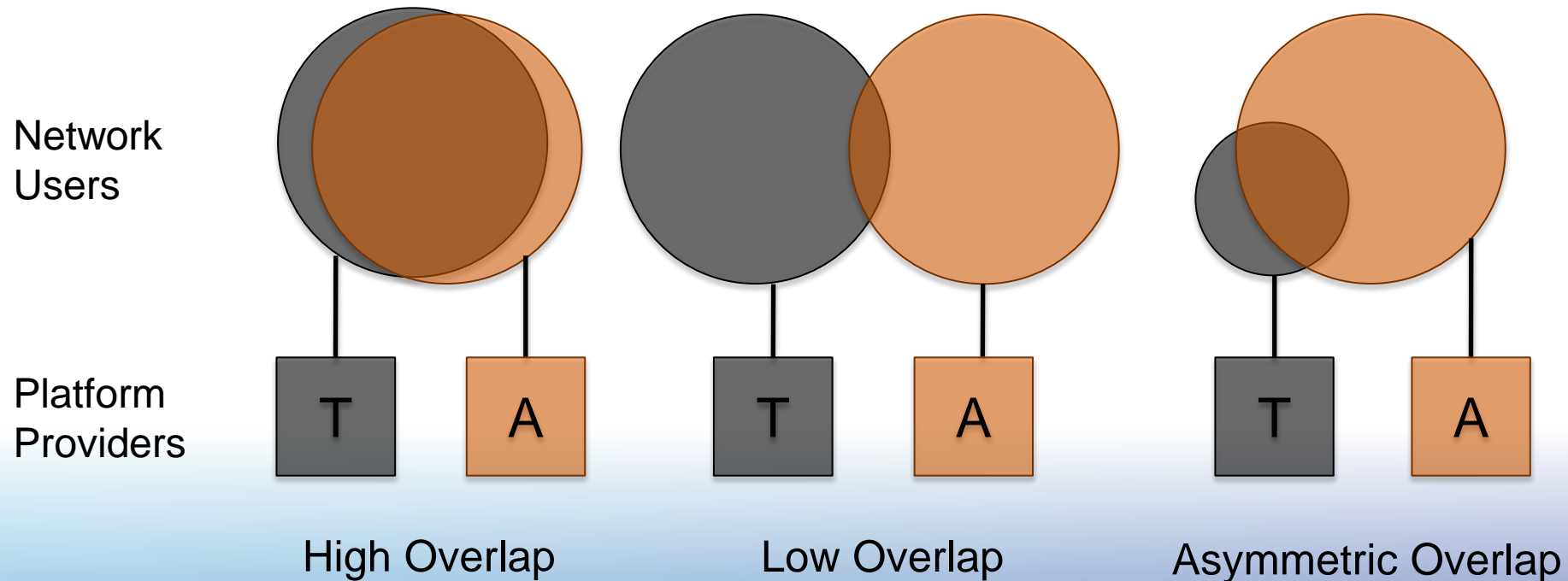


Zune / Sony PSP



Zune / iPhone

A platform's *user overlap* predicts competitors. Size (usually but not always) predicts victor.



- **Finance**

- Shareholder Value → Stakeholder Value
 - Incorporate network effects

- **Human Resources**

- Internal Employees →
 - External communities

- **R&D**

- Experts & Specialized departments →
 - Crowdsourcing & Open Innovation

- **Strategy**

- Entry Barriers & Inimitable Resources →
 - Ecosystem husbandry & Long Tail

- **Marketing**

- Push → Pull, Outbound → Inbound

- **IT**

- Back Office (ERP) → Front Office (CRM) → Out-of-Office (Social & Big Data)

- **Operations & Logistics**

- Uber: biggest taxi company, no taxis,
 - Airbnb (biggest accommodations but no real estate), Facebook (biggest media firm but creates no content), Alibaba (biggest merchant but has no inventory)

Protected by Credentialing, Complexity, Regulation & Hard Assets

Info & Tech

OS : MS Windows

Search : Google

Games : Nintendo

Cloud : AWS

Maps : Google APIs

PDF : Adobe

Movies : Netflix

Services

News : Twitter

\$\$\$: eToro, Kickstr

Conslt: Eden MacC

Labor : oDesk

Insurance : ?

Law : LegalZoom

Education : edX

Consumer Goods

Shoes : Nike Fuel

Shirts : Threadless

Art & Craft : Etsy

Apparel: Lee & Fung

Watches : Apple

Home Goods

Appliance : Haier

Lighting : Philips

Thermostat : Nest

Automotive

Cars : Mercedes

Cars : 3d Printed

Rides : Uber

Protected by Credentialing, Complexity, Regulation & Hard Assets

Medicine

Healthcare: Harvard

MRI : Cohealo

Devices : Biomet

Food & Agri

Farming : eChoupal

Spices : McCormick

Crop Yield : IBM

Heavy Industry

Engines : GE Predix

Tractors : Hitachi

Energy & Mining

Utility : EnerNOC

Mining : Gold Corp

Government

City : Singapore

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Thank you



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Digital Economy



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SCHOOL of
Management

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QUESTIONS & DISCUSSION

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