

Platform Strategy: *Myths vs. Realities*

Things and Systems Symposium

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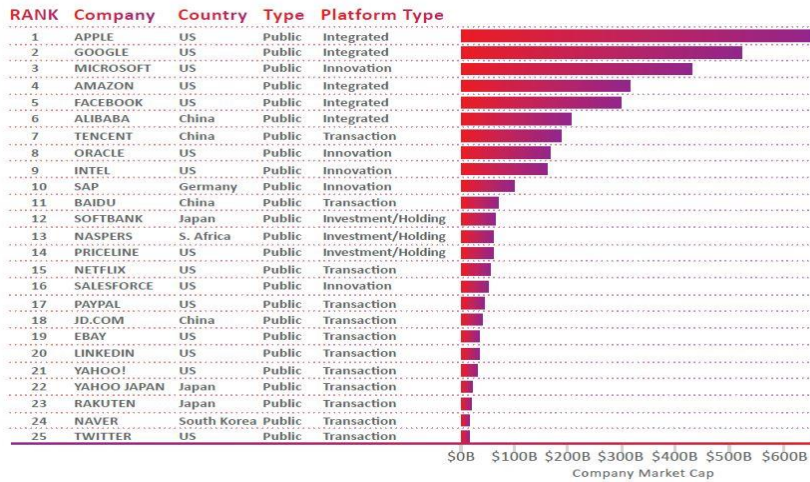
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Focus of Talk

- **How different:** products, product platforms, and industry platforms
- **Why different:** new ways of thinking about competition, innovation & business models
- **Why important:** growing role of platforms but many “myths” & misunderstandings

Many Top Firms = Platforms ...?

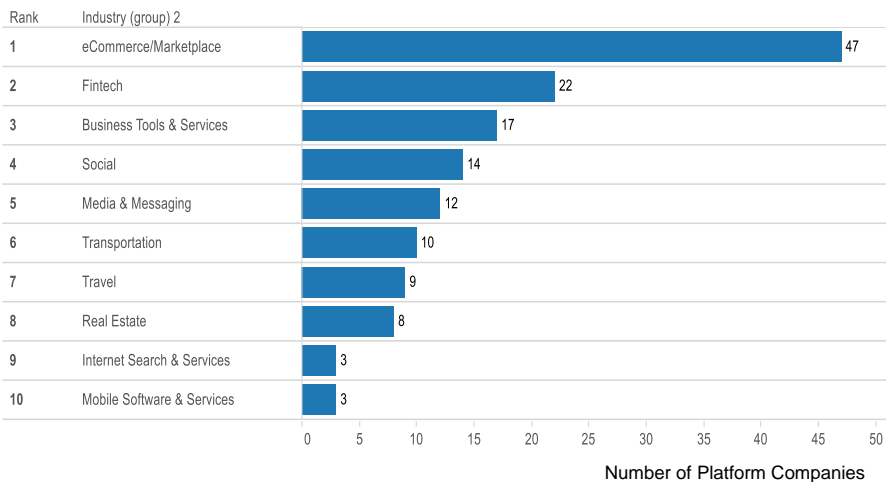
ANNEX A. TOP 25 PUBLICLY TRADED PLATFORMS



SOURCE: Global Platform Survey, The Center for Global Enterprise.

Top Platform Sectors

135 total platform companies identified.

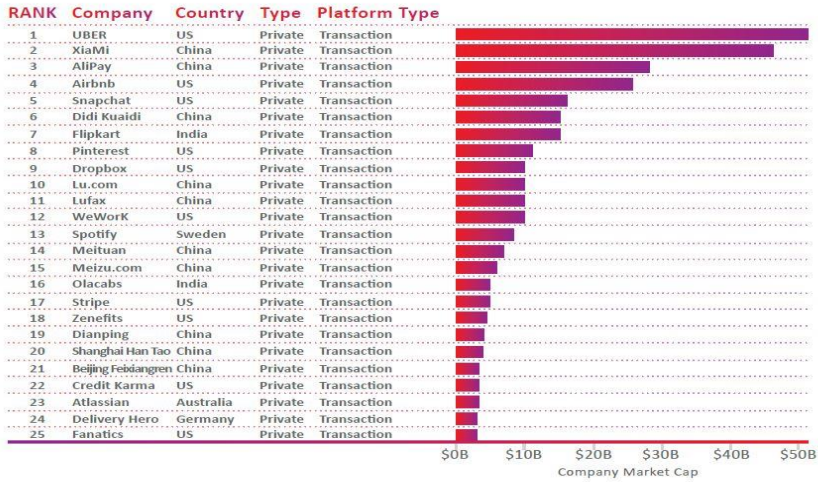


Source: Peter Evans, Platform Literature Database, CGE, 2016

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Most “Unicorns” (70%) = Platforms

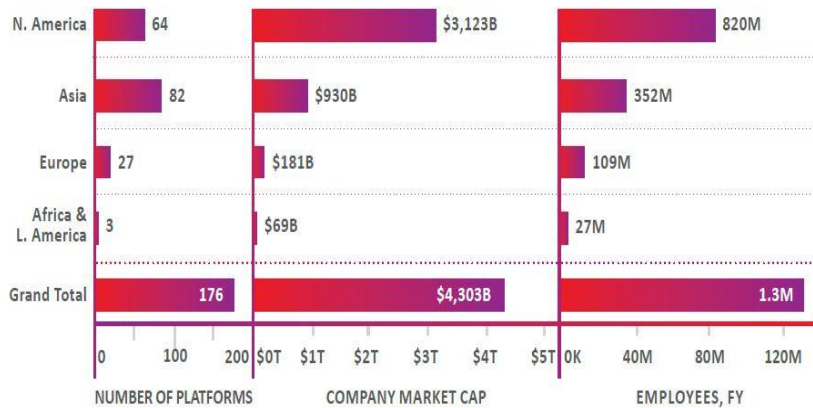
ANNEX B. TOP 25 PRIVATELY OWNED PLATFORMS



SOURCE: Global Platform Survey, The Center for Global Enterprise.

Platforms in all Regions (2015)

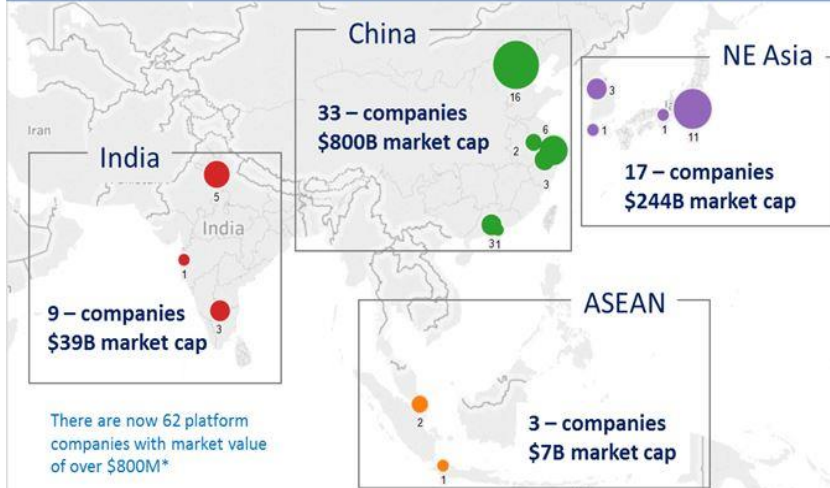
PLATFORM COMPANIES BY REGION



SOURCE: Global Platform Survey, The Center for Global Enterprise, 2015

Asian Platforms (2016)

Asia's Platform Economy: \$1.1 trillion in Market Cap



Source: P. Evans, Asia Platform Regional Survey, CGE, 2016 with data from Thomson Reuters Eikon, Quid, Inc. and CBInsights.

Platforms Now Are Everywhere!

Platform	Examples
Personal computers	Windows OS, Macintosh ...
Smartphone OS	Google, Apple... Microsoft, Blackberry ... Samsung
Social Media	Facebook, Google, Twitter, LinkedIn ... WeChat
Video Games	Microsoft, Sony, Nintendo
Enterprise Software	SAP; Oracle, Microsoft... Salesforce et al.
Microprocessors	Intel, ARM, Qualcomm, Nvidia
Power Systems	Gasoline vs. Hybrid, EV, Hydrogen Fuel Cell
Sharing Economy	Uber, Airbnb, Lyft, HomeStay, TaskRabbit et al.
Messaging	WhatsApp, WeChat, Line, Kakao
Payments	PayPal, Apple, Google, Visa, MC ... Square, Bitcoins
Web Services	Amazon, Microsoft, Google, others
Internet of Things	GE, IBM, Oracle, Cisco, Amazon, Microsoft, Salesforce etc.

And many more platforms or platforms within or alongside other platforms!

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General Platform Definition?

- Brings together different groups of people for a **common purpose** or to share a **common resource**

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Product Platform Definition?

- Brings together different groups of people for a **common purpose** or to share a **common resource**
- Enables innovations **within the firm or supply chain** using common components & architectures
- Generates value from sales of products or services



Industry Platform Definition?

- Brings together different groups of people for a **common purpose** or to share a **common resource**
- Enables innovations or transactions **inside AND outside the firm** that might not otherwise occur
- Generates value and “**network effects**” (*positive feedback loops*) from these interactions as well as sales of products or services

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Product-Platform Distinctions?

- Products (or Services) – *Standalone Sales*
- Product/Service Platforms – *Product Families*
 - **Supply chain = contracts**
- Industry Platforms – *Network Effects*
 - **Ecosystem “complementors = partnerships**

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Definition of *Network Effects*?

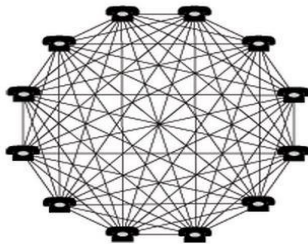
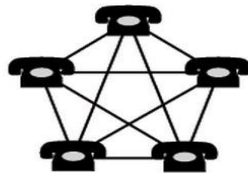
- **Self-reinforcing positive feedback loops, where the potential value for each user increases with each additional user (or complement).**

– **Growth Potential: *Linear vs. Geometric, Exponential***

成長可能性: 線形對幾何對指數関數

Examples: railroads, telephones, credit cards, fax machines, VCRs, PCs, Internet search engines, Internet marketplaces, sharing economy (Airbnb, Uber), Internet of Things

Network Effects: Telephone

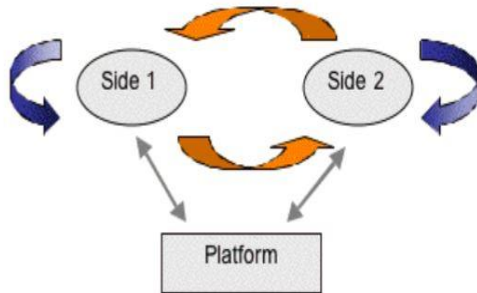


Metcalf's "Law"
 $n(n - 1)/2$

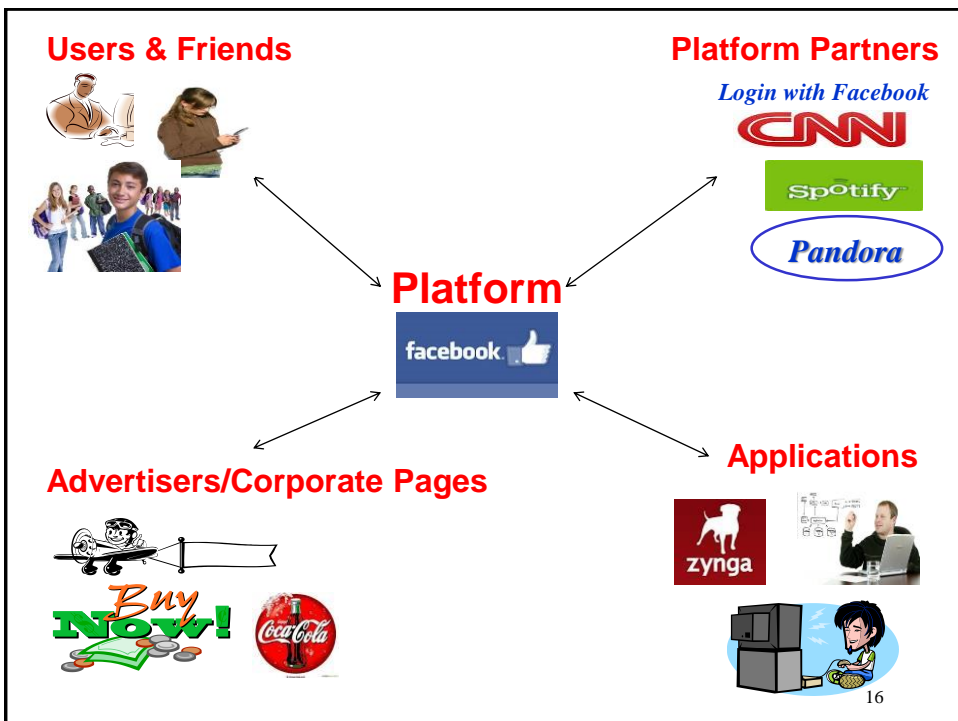
<u>Nodes</u>	<u>Connections</u>
2	= 1
5	= 10
10	= 45
1000	= ca. 500K
1M	= ca. 500B
1B	= ca. 5e+17

Types of Network Effects?

- “Direct” or “same side” (user to user)
- “Indirect” or “cross side” (one side to other)



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The Argument in Brief

- “Winners” in platform markets (*i.e.*, driven by network effects) need the best platform strategy, not just the “best” product or service
- **“Best” product or service?**
 - Hard to define & changes over time
- **“Best” platform?**
 1. **Open or easy access** (*but not too open*)
 2. **Modular architecture** (*easy to innovate & extend*)
 3. **Compelling “complements”** (*internal + external*)

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“Best” Platform Strategy?

- **“Trigger” network effects around a “core” product/service**
 - Identify market “sides”
 - Identify which side is most important
 - Limit “multi-homing” (and switching)
- **“Monetize” one side without lessening network effects**
 - Determine which side you can charge, and how much
 - Focus on volume/scale – or the most profitable segment
- **“Tip” the market when multiple platforms compete**
 - Subsidize the key market side (users or complementors)
 - Limit multi-homing (or encourage one-way switching)
 - Or form a “coalition” of “losers” (e.g. Android)

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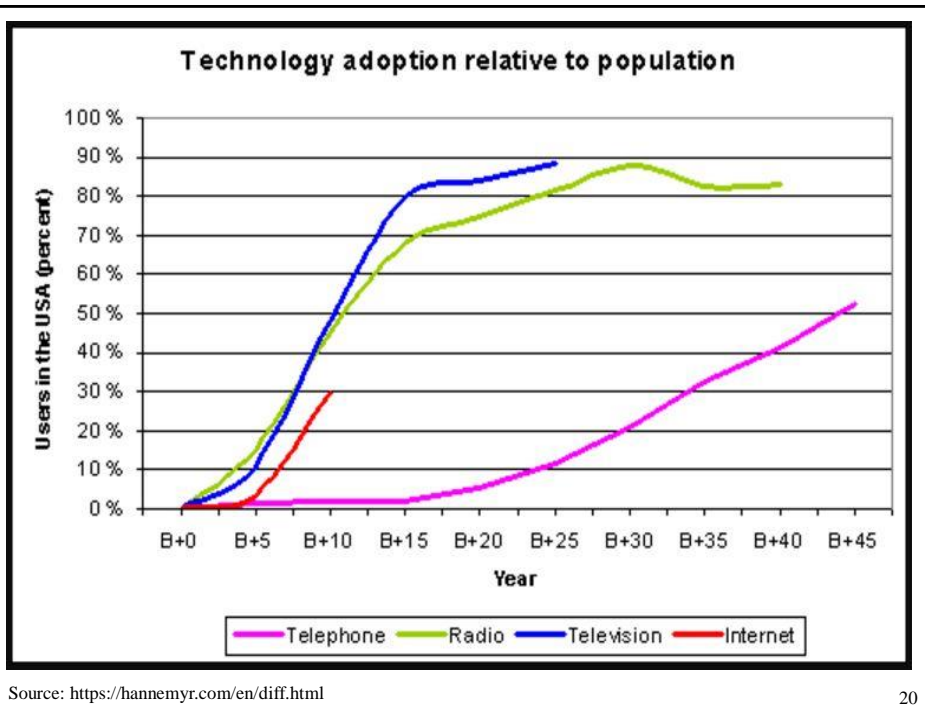
Platform “Myths” vs. “Realities”

Myth 1: Industry platforms = digital technology and the Internet age.

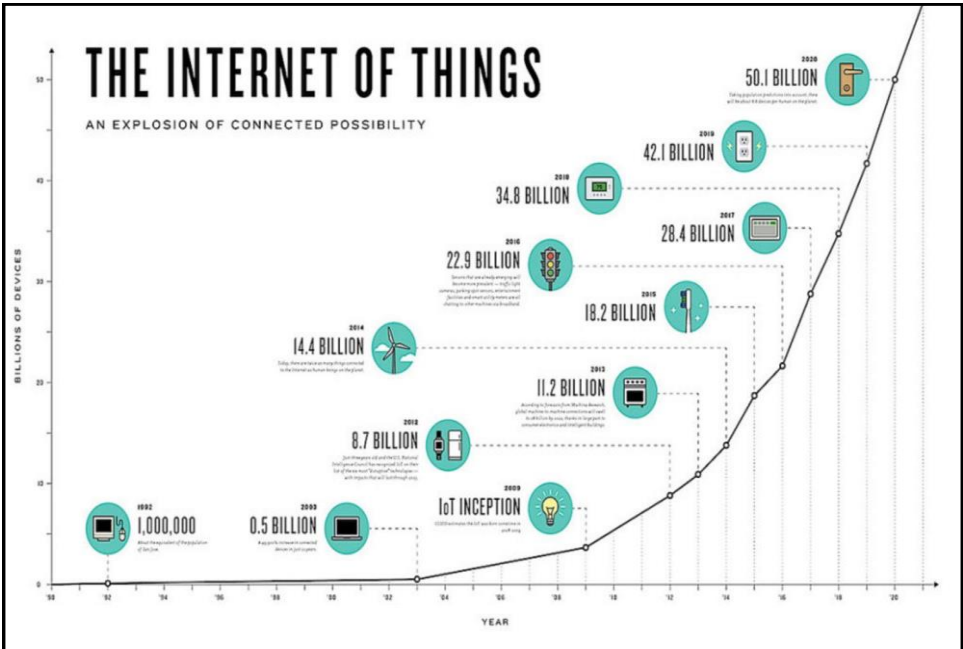
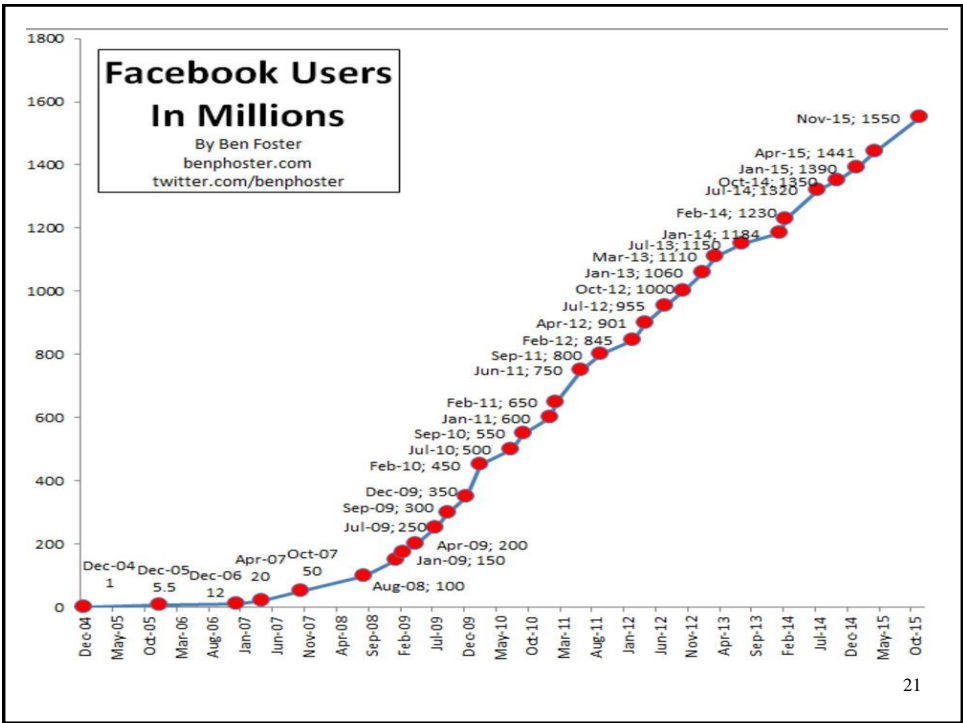
• **Reality:** *Industry platforms have existed for centuries. But “network effects” especially powerful with digital technology and the Internet.*

– Ancient examples?

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Source: <https://www.ncta.com/platform/industry-news/infographic-the-growth-of-the-internet-of-things/>

Platform “Myths” vs. “Realities”

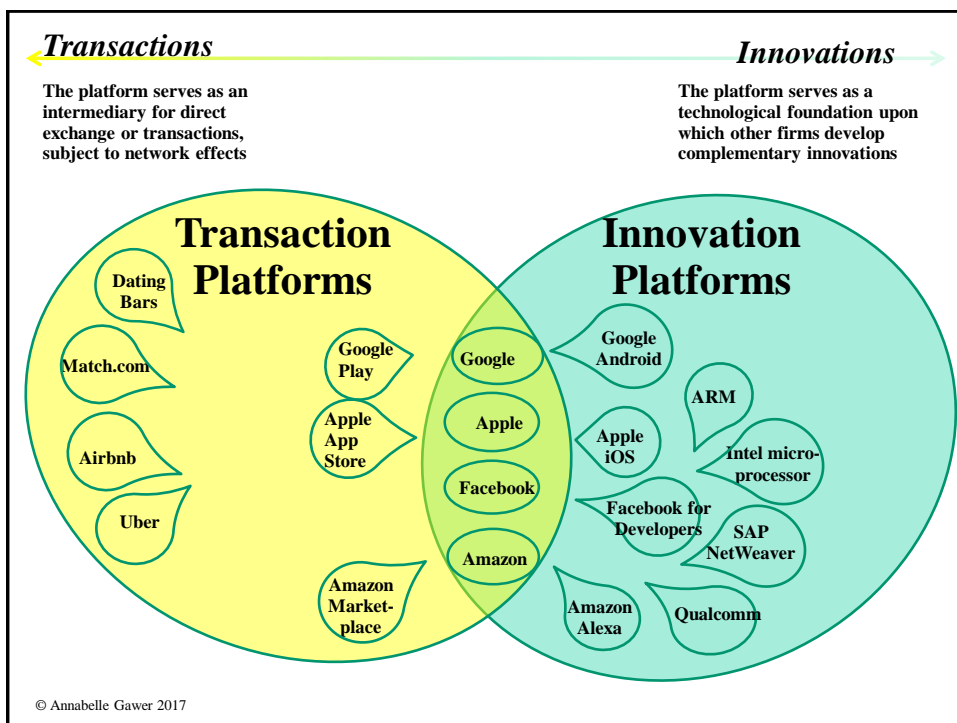
Myth 2: All industry platforms have similar dynamics and require similar strategies.

• **Reality:** We divide all into two basic types

1. **Innovation Platforms**
2. **Transaction Platforms**

- Value generation, capture & delivery – *strategy* – differ
- Some companies have both types of platforms

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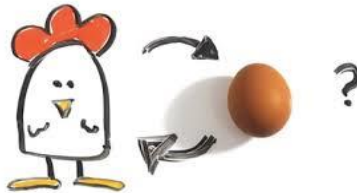


Industry Platform Commonalities?

1. All have “multiple market sides” or actors
2. All generate “cross-side network effects”
3. All must solve a “chicken-or-egg problem”
4. All can be “virtual homes” for key activities

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Not always clear which “side” comes first: the chicken or the egg

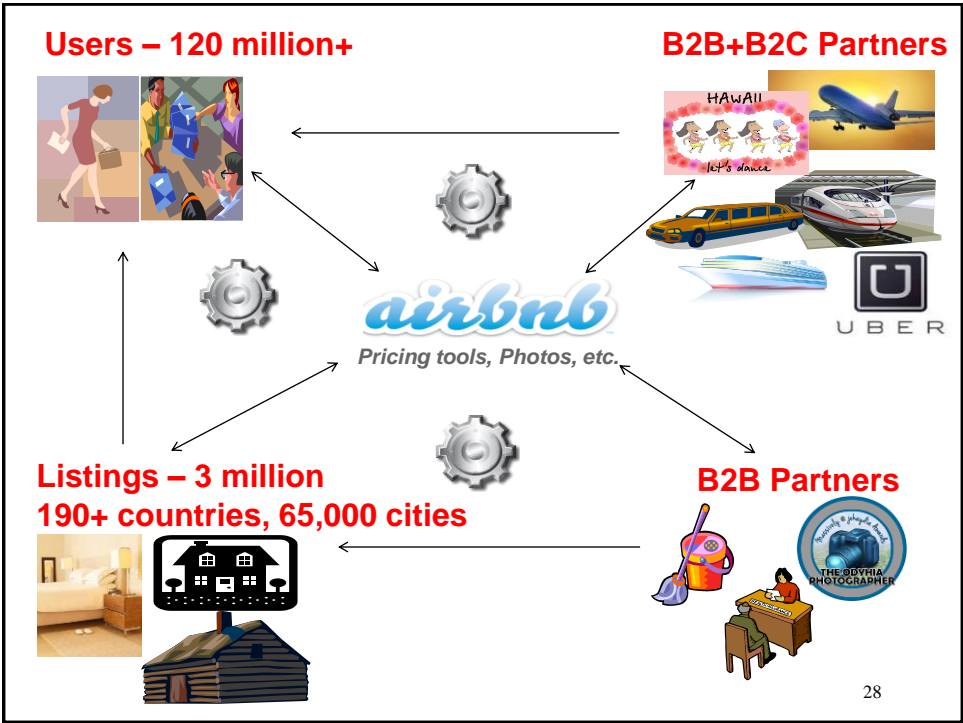
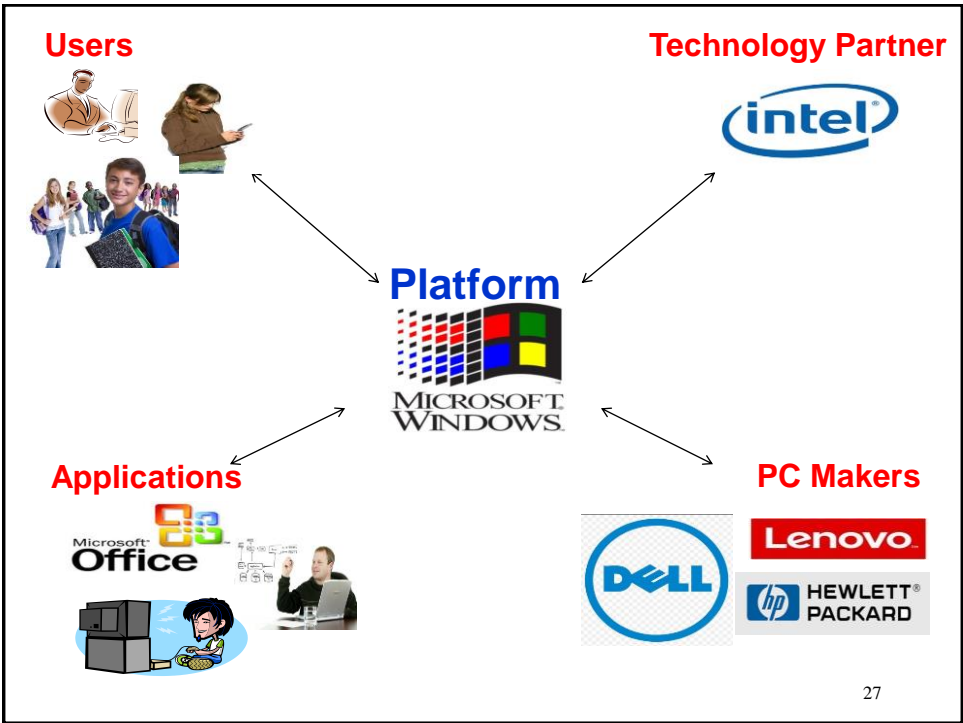


Compare:

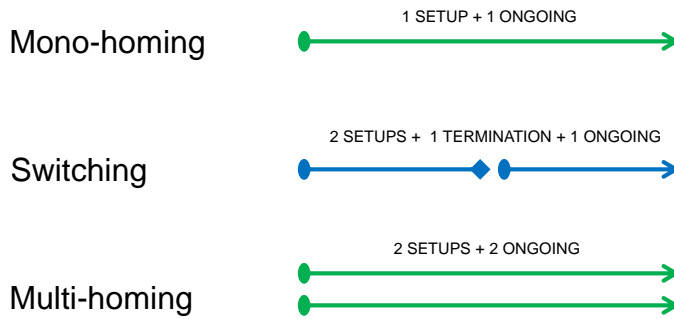
Yellow Pages ... Shopping Malls ... Facebook ... WeChat
Windows, MacOS ... WindowsPhone, iOS, Android

Airbnb, Uber ... Bitcoin, IBM Watson

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Unique Platform Concept: *Multi-Homing* (vs. Switching)



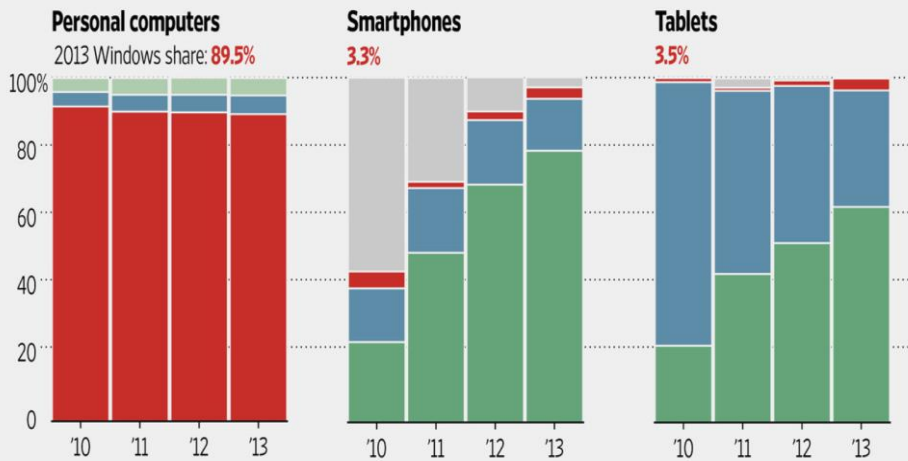
Source: G. Parker, Tulane University

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Measuring Windows

Market share by operating system

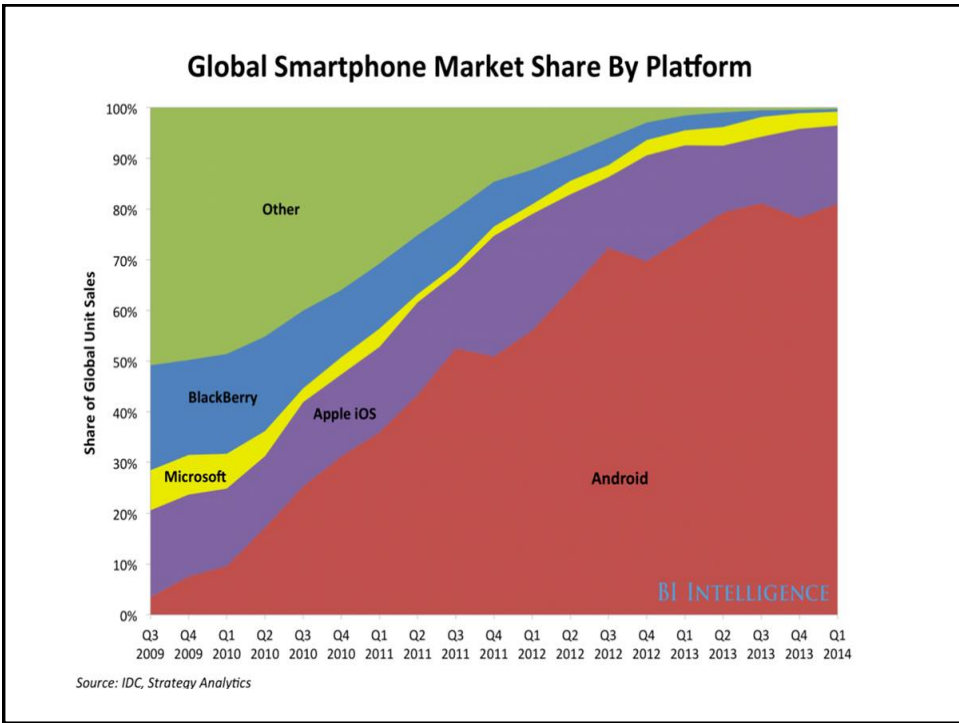
Windows Mac OS/iOS Linux Android Other



Source: International Data Corporation

The Wall Street Journal

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Platform “Myths” vs. “Realities”

Myth 3: Easy to create a profitable platform business – think Microsoft, Apple, Google, Facebook ... and the billion-dollar “Unicorns”

•Reality: Average financial performance is higher for public platform companies. But many fail, lose money, or earn little profit before and after IPO.

Platform “Myths” vs. “Realities”

Myth 4: Most platform markets tend toward “natural monopolies” and can yield “winner-take-all-or-most” (WTAoM) outcomes.

•Reality: WTAoM occurs, but firms must:

- 1) Generate very strong network effects;
- 2) Make it costly for users to “multi-home”;
- 3) Leave little room for niches or differentiation;
- 4) Create barriers to entry (scale, technology)

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The screenshot shows a Bloomberg Technology article. The header includes the Bloomberg Technology logo and navigation links for Markets, Tech, Pursuits, Politics, Opinion, and Businessweek. The main headline is "Uber Loses at Least \$1.2 Billion in First Half of 2016". Below the headline is a sub-headline: "After touting profitability in the U.S. early this year, the ride-hailing company is said to post second-quarter losses exceeding \$100 million." The article is by Eric Newcomer, dated August 25, 2016, 9:00 PM, and updated on August 26, 2016, 2:50 AM. A URL is provided: <https://www.bloomberg.com/news/articles/2016-08-25/uber-loses-at-least-1-2-billion-in-first-half-of-2016>. The article is part of an Inc. magazine feature, with a "Get a Profile ON INC.COM" button. Below the article text, there is a navigation bar with "MENU", "Inc.", "Get a Profile ON INC.COM", "Q SEARCH", "NEWSLETTERS", "FOLLOW", and "SUBSCRIBE". The article text discusses Airbnb's revenue model and financial performance.

Uber Loses at Least \$1.2 Billion in First Half of 2016

After touting profitability in the U.S. early this year, the ride-hailing company is said to post second-quarter losses exceeding \$100 million.

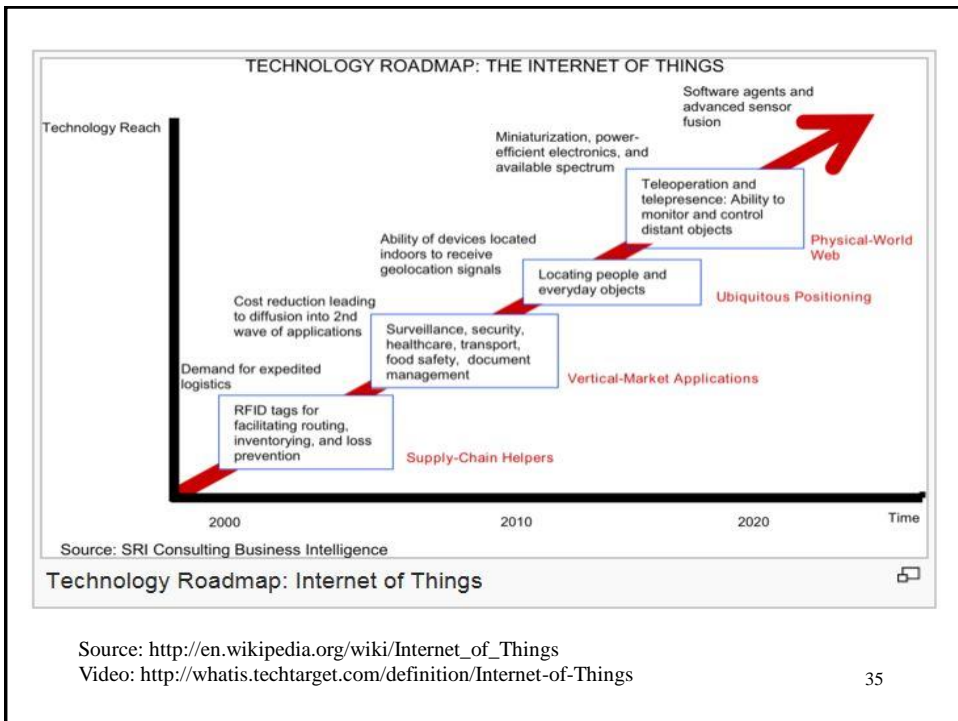
by Eric Newcomer
August 25, 2016 9:00 PM Updated on August 26, 2016 2:50 AM

<https://www.bloomberg.com/news/articles/2016-08-25/uber-loses-at-least-1-2-billion-in-first-half-of-2016>

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Airbnb earns revenues by charging the property owners a fee of 3% on the property rented and between 6%-12% from the guest renting the property... reports suggest that the company ended 2015 with nearly \$900 million in revenues. Revenues were estimated at \$250 million in 2013. Despite the rising revenues, Airbnb is yet to make profits. The company is planning on turning profitable in the next year. It is estimated to have ended 2015 with \$150 million in operating losses. It has expanded its presence in over 34,000 cities across 191 countries globally. Airbnb has been venture funded so far. It has raised \$3.4 billion from investors

PUBLISHED ON: AUG 23, 2016



IoT: Platform Strategy Questions

- Several new platforms around “Internet of Things” (IoT)
 - GE, IBM, Cisco, Salesforce, Amazon, Microsoft, Oracle, Soracom
- Challenge: How design platform + new products & services?
 1. **Market:** What are the sides? Which is most important?
 2. **Platform:** What is “core”? Access how open, modular? Ecosystem?
 3. **Platform Type:** Enable innovations? Enable transactions? Both?
 4. **Complements:** Compelling new products? New services?
 5. **Network Effects:** Direct (same-side) vs. in-direct (cross-side)?
 6. **Chicken-Egg:** How solve: one side first? Or zig-zag?
 7. **Monetize:** Charge which side & how much? Profit outlook?
 8. **Multi-homing:** How limit? Encourage one-way switching?
 9. **Tipping:** Pricing? Subsidies? Incentives? Coalition? Envelopment?