

The Rise of the Platform Economy

Martin Kenney

Professor

Community and Regional Development Unit

UC Davis

&

Visiting Professor

National Graduate Institute for Policy Studies

Tokyo, Japan

&

John Zysman

Director

Berkeley Roundtable on the International Economy

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Outline of the Talk

- **Introductory observations**
- **Digital platforms**
- **Reorganizing work and value creation**
- **Concluding thoughts**

Technology Does Not Determine Outcomes, but Creates Possibilities

Past as Prologue

- **The assembly line gave us the corporate capitalist (and industrial union).**
 - **Different nations organized assembly-line capitalism differently**
- **Will the Cloud give us the platform capitalist (and precarious labor)?**
 - **Will different nations react to platform capitalism differently?**

Digital Platforms

What Is a Digital Platform

- **The key readings on platforms:**
 - **Gawer and Cusumano 2002. Platform Leadership**
 - **Eisenmann, Parker & Van Alstyne 2011. Platform Envelopment SMJ**
- **A digital platform is:**

a set of technical building blocks that act as a foundation upon which an array of firms, sometimes called a business ecosystem, can develop complementary products, technologies or services (Gawer 2009).

Digital Platforms Are

- **Application of big data, new algorithms, and cloud computing**
- **Algorithm-enabled “cyberplaces” where constituents can act or transact**

Made So Powerful by

- **Cloud computing (see Zysman 2012)**
- **Ubiquitous connectivity**
 - 3 billion smartphones
- **Open source software and increasing prevalence of standards**
- **Software enveloping people and objects**

Economics of Digital Platforms

- **Network effects (Cusumano, Gawer, etc.)**
- **Winner take all**
 - One competitor in vertical survives – Google, Facebook, Amazon, Github, LinkedIn
- **Powerful lock-in effects**
- **Successful platforms create huge but dependent ecosystems around them**
- **Small numbers of employees, high revenues**
 - Google = ~62,000 employees, \$74.54B
 - Facebook = ~12,700 employees, \$17.93B

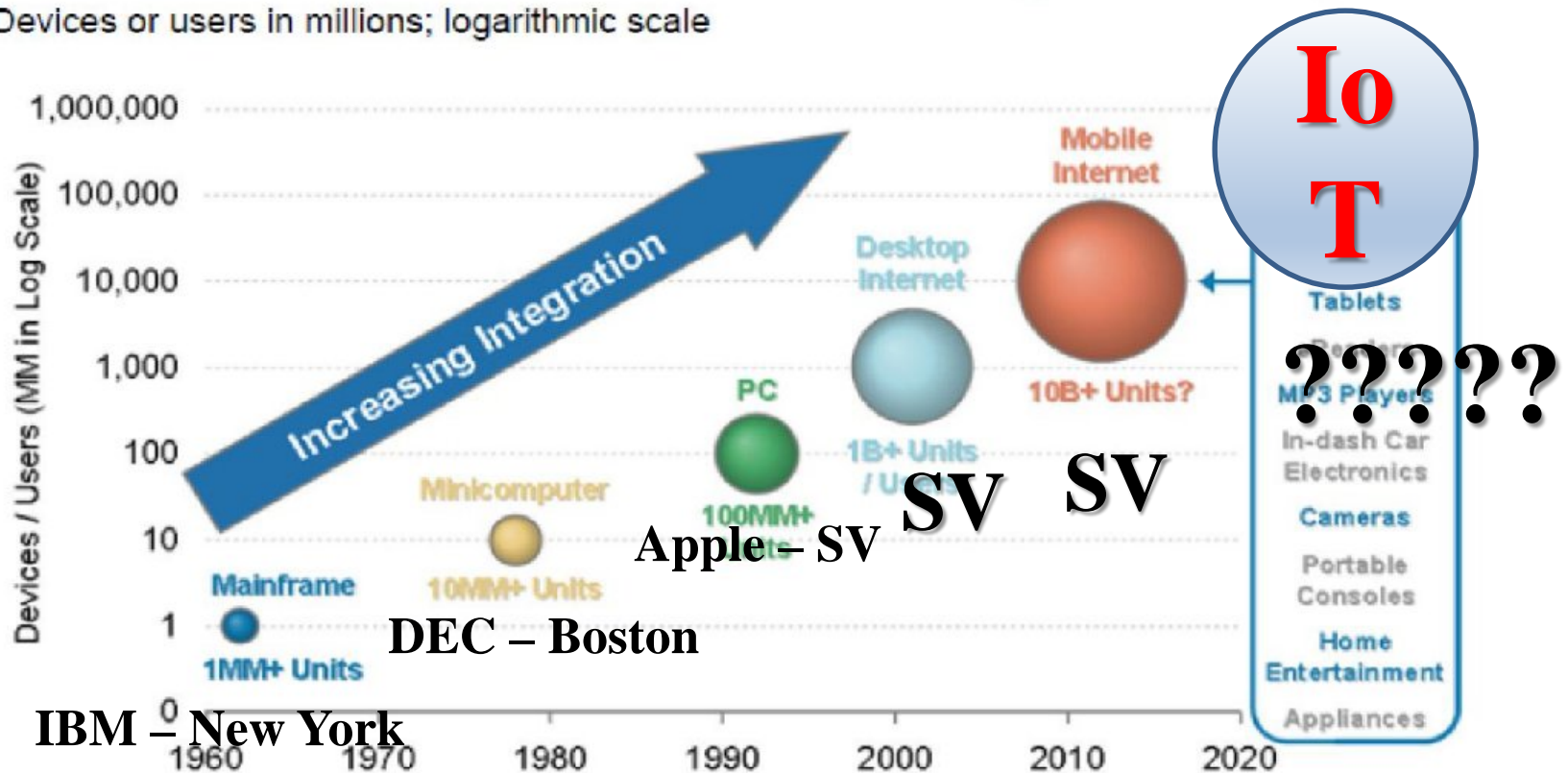
What Is At Stake?

Each New Computing Cycle = 10x > Installed Base than Previous Cycle

Exhibit 29

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

Devices or users in millions; logarithmic scale



IBM - New York

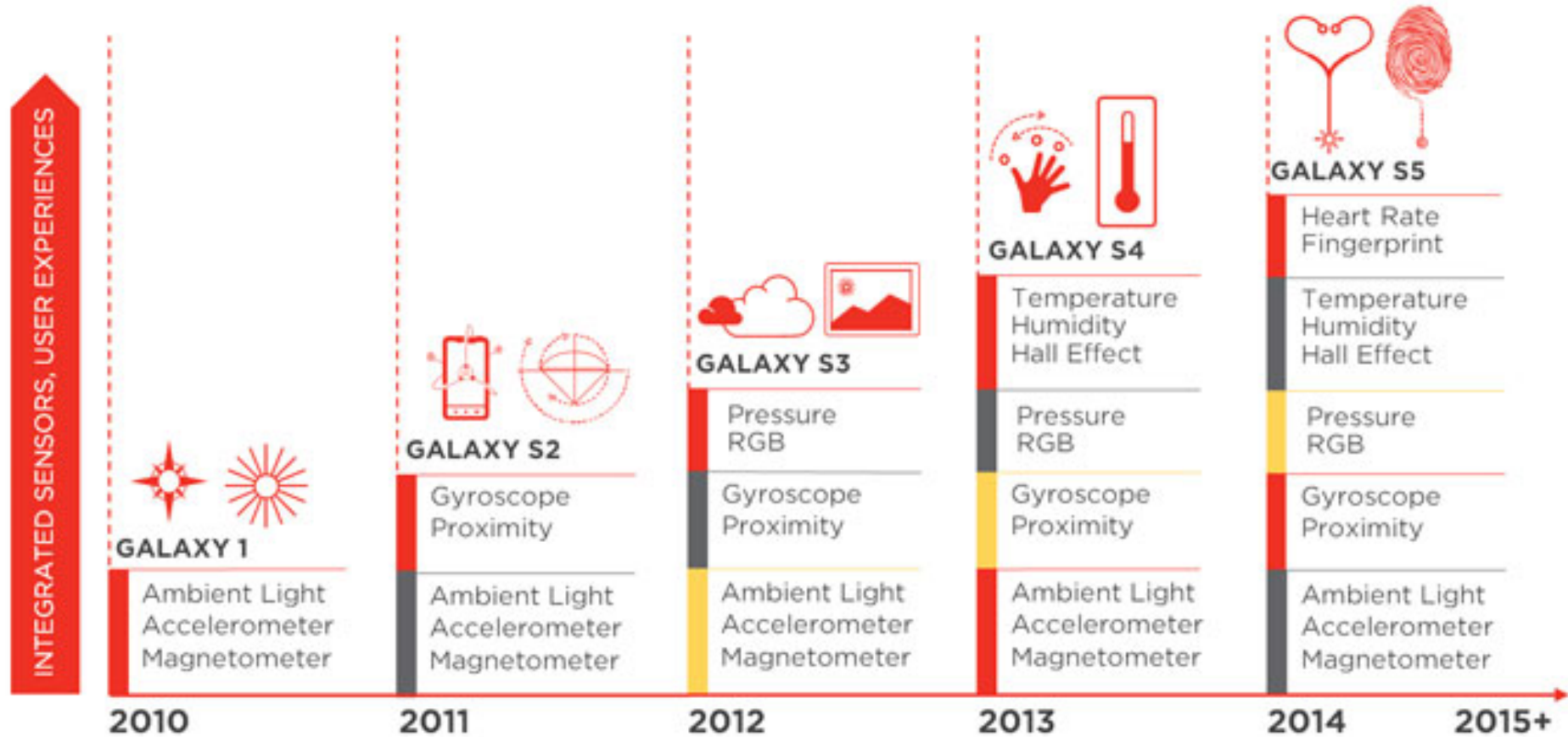
DEC - Boston

Apple - SV

SV

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SENSOR GROWTH IN SMARTPHONES



Data Is a New Raw Material

- **Surfing the internet creates value (Terranova, Lanier et al.)?**
 - Digital exhaust
- **Putting content on Facebook, Pinterest, Youtube, LinkedIn?**
- **Creating open source software?**
 - If on GitHub?

Access for Producers Greater than Ever Before in History

- **Apps can be uploaded from anywhere in the world**
 - **Openly available SDKs etc.**
- **Making a video for YouTube cheaper than ever**
- **Global access and devices more widespread and less expensive than ever**
- **Digital markets are global**

What Will Be the Economic Organization?

- **Sharing economy (Benkler) – too narrow and Uber etc are not sharing**
- **Peer economy (Chase) – Uber etc. not peers, too narrow**
- **Gig economy (Friedman) – Describes the compensation and work, but misses the digital nature of the reorganization**
- **Precariat (Standing) – Describes relationship of many to employment, but misses digital aspect**

These Digital Platforms May Affect

- **Changes in labor force**
- **Value creation and capture**
 - **New businesses such as YouTubers**
- **Spatial organization**
- **Power of the government**

Platform Economy

- **Consumer**
 - Discussed here
- **Industrial (likely to be extremely important in the future)**
 - Internet of Things
 - Industrial Internet

Reorganizing Work and Value Creation

Globally Biddable Contract Labor

- **Lowest price**
- **Contractors largely powerless**
 - **Exception if they have rare skills (Kunda and Barley's gurus)**
- **Little upside for contractor besides possibly learning**
 - **Could lead to a permanent job?**
- **Social Outcome:**
 - **Replace permanent employees**
 - **More efficiently allocate people to work**

Industries Cyber-Transformed

- **Convenience, efficiency, mobilization of slack assets**
 - **Can consolidate fragmented industries**
- **Breakdown barriers to competition (taxi rules, zoning, anti-discrimination)**
 - **But some initial advantages eroding as Airbnb pays hotel tax, Uber/Lyft get commercial insurance, etc.**
- **Providers largely powerless vs. platform owner**
 - **Little upside for contractor**

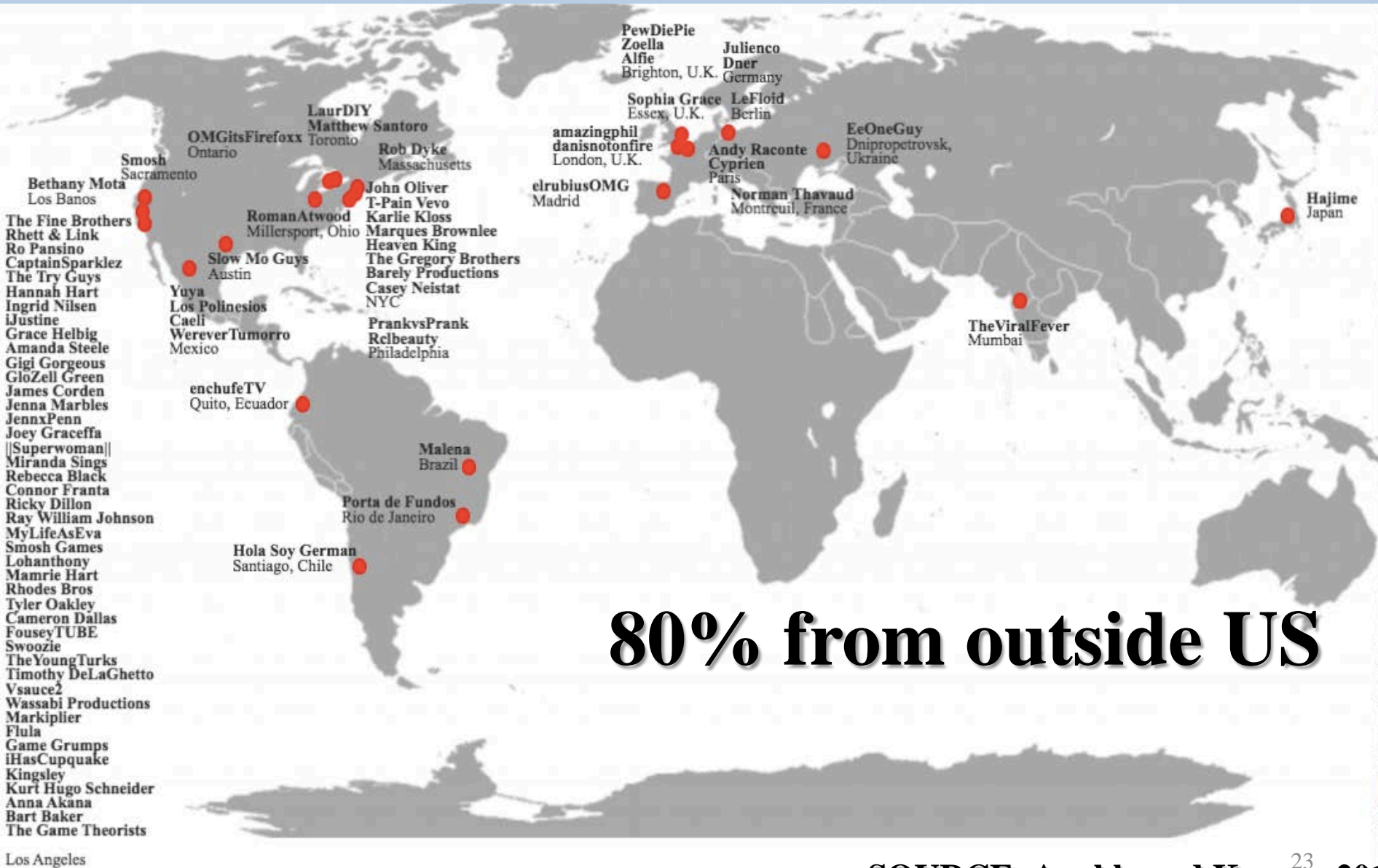
Virtual Consignment Model

- **Platform owner gets content at no cost**
- **Content provider bears all costs**
- **Content provider may have multiple forms of upside**
 - **Payment from platform owner**
 - **Ancillary income sources from audience**
 - **Appearances, testimonials, product placements, items**
- **Content providers' return characterized by power law**
- **Social Outcome:**
 - **Enormous opportunities for new work but WTA**

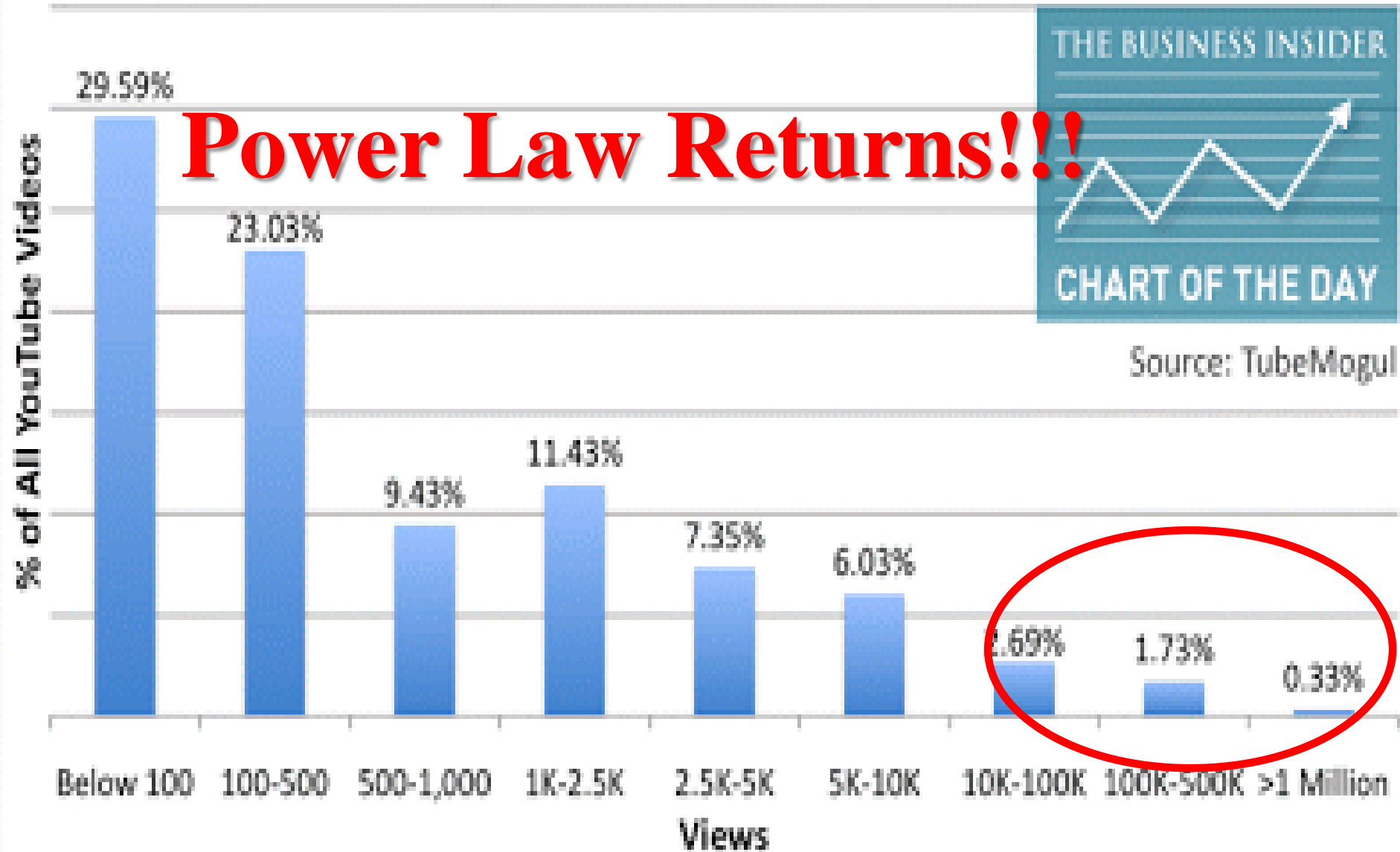
Virtual Consignment

- **The Apps stores have now paid out \$20 billion**
- **YouTube – YouTube Partner Program**
 - **Created in 2007**
 - **1M+ creators**
 - **1,000s of channel earning \$100K+**
 - **Vidcon Convention 2014 – 19K+**
- **Udemy – Online courses**

Location of Top YouTube Creators, 2015 n = 90



Youtube Videos By Number of Views



Virtual Project Funding/FinTech

- **Crowd “charity” funding – Kickstarter (\$612M) and Indiegogo (\$98M)**
- **Cyber platform for angels – Angel’s List**
- **Bitcoin and block chains**

Concluding Reflections

Algorithmic Law?

- **Power is in the algorithms**
 - Volkswagen “solved” pollution with algorithms that state tests could not see
 - High frequency trading
- **Uber changes payment algorithm**
- **Google changes PageRank algorithm**
 - Decides on who qualifies on right to forget
- **Facebook decides on pornography**
 - Women breast feeding

Opaque to users, producers, regulators, consumers

Value Creation Atomized Throughout Society

- **Online human activity, both work and not work, creates (or is transformed into) value**
- **“Long tail” work may not produce substantial income, but some becomes extremely valuable**
 - **Flappy Birds etc.**
- **Where is the work place – potentially everywhere that there is digital access**

Successful Platforms Often Are WTA

- **They have new value propositions**
 - Massive opportunities for value creation or saving
- **Platform owner/workers benefit massively, but not necessarily contractors and consigners**
 - A few may be big winners
- **Reinforce income inequality?**
- **Entry barriers dissolved digitally**
 - Uber/Lyft, Airbnb, and many more especially in financial sectors

If Platform Economy, then

- **Who owns/controls the platform?**
 - **Wikipedia meets Uber meets the Danish Ag Coop**
- **Is power centralized as platform controls the connection nexus**
 - **Lock-in and network effects**
 - **Power is in the algorithms and data control**
- **Who gets rewarded?**

Platform Economy, Sharing Economy?

Platform

- **Uber**
- **What happens to labor?**
 - More precarious
- **Income distribution**
 - Platform owner “taxes” all?
- **More efficient use of resources**
 - Airbnb, Uber etc.
- **Winner take all industries**
- **Who monetizes**
- **Monetization of UGC**

Sharing

- **Wikipedia**
- **More wealth by sharing?**
 - Cooperative
- **Income distribution**
 - Redistribution
- **More efficient use of resources**
 - Locally organized
- **Open source software**
- **User-generated content shared**

Countries and People Will Have to Choose What Do They Want

Questions?

