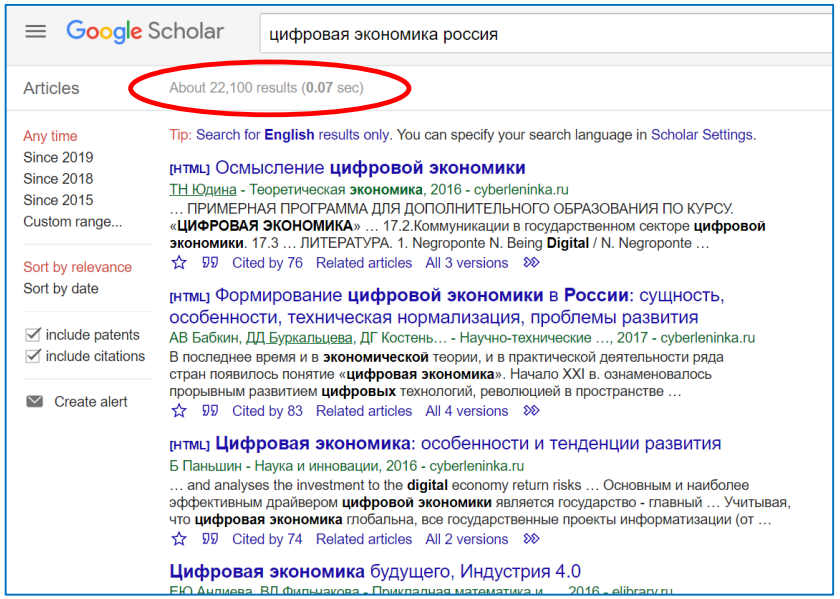
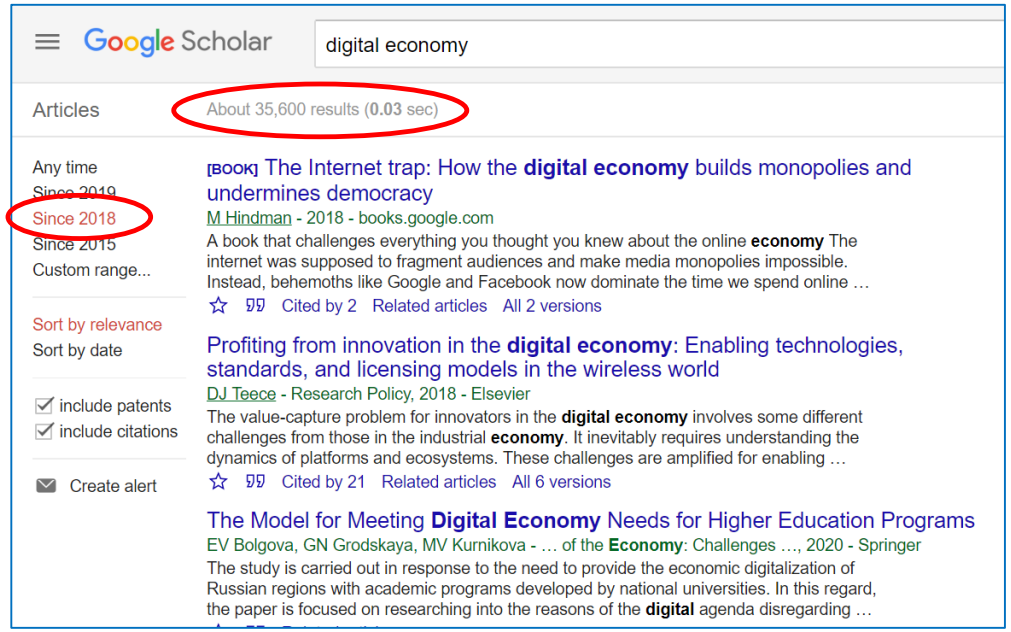
Session 11. Platform revolution

Natalia Milovantseva, PhD, April 27, 2019

Follow-up: Literature on digital economy

CURSORY SEARCH





Follow-up: Why investors don't care if tech companies don't make money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Loss Leaders

Fewer than 20% of tech companies filing IPOs in recent years are profitable, the lowest such number since the dot-com bubble burst in 2000.

Share of technology companies going public that are profitable

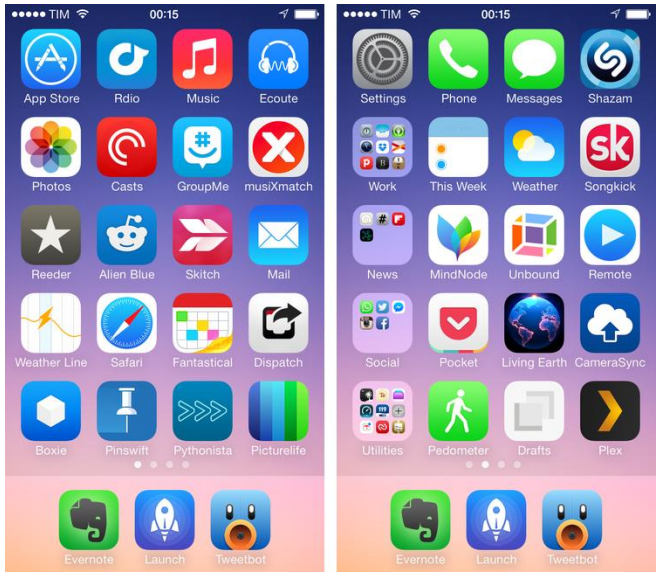
Source: Jay Ritter, Professor of Finance, University of Florida

In Silicon Valley, meanwhile, the red ink flows. A stable of so-called unicorns and decacorns (startups valued at billions or tens of billions of dollars) are going public this year. As they do, eye-popping market capitalizations are assigned to companies whose plan for profitability is hard to discern beyond their willingness to spend and spend and spend on growth that promises a

"Despite everything written about short-termism, we're seeing that as long as these companies have a compelling growth story, investors are actually telling them to not focus on short-term performance."

Jay Ritter, University of Florida

Digital goods' complements: A case of iPhone



Apple's experiment with third-party apps is an example of data-driven decision-making

Benefits of digital complements to a physical product: The value of the physical product (iPhone) increases as the number of digital complements (iPhone apps) increases.

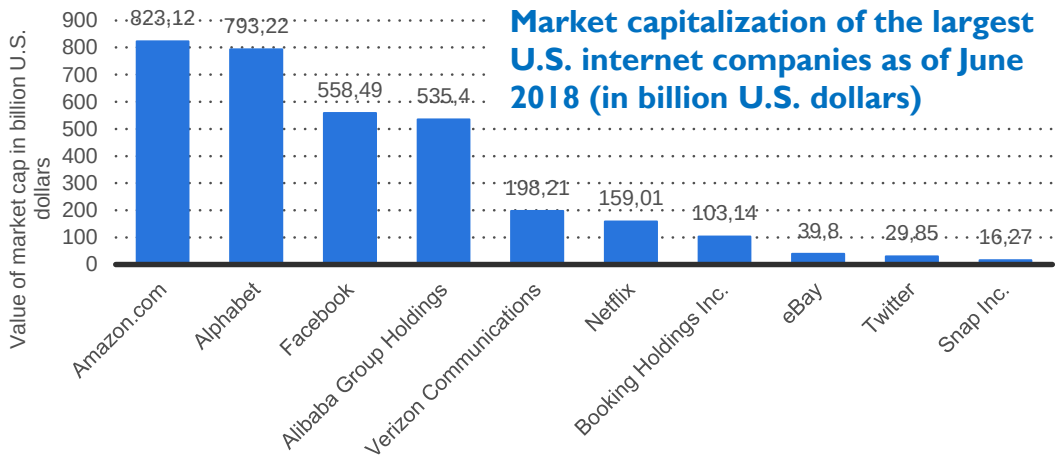
Complements and network effects

STUDENT

	Product 1	Product 2
	ORDINARY PRODUCT	COMPLEMENTARY PRODUCTS
	NETWORK EFFECT PRODUCT	TWO-SIDED NETWORK PRODUCTS

Interaction of products

Interaction of consumers



Implications of free, perfect and instant

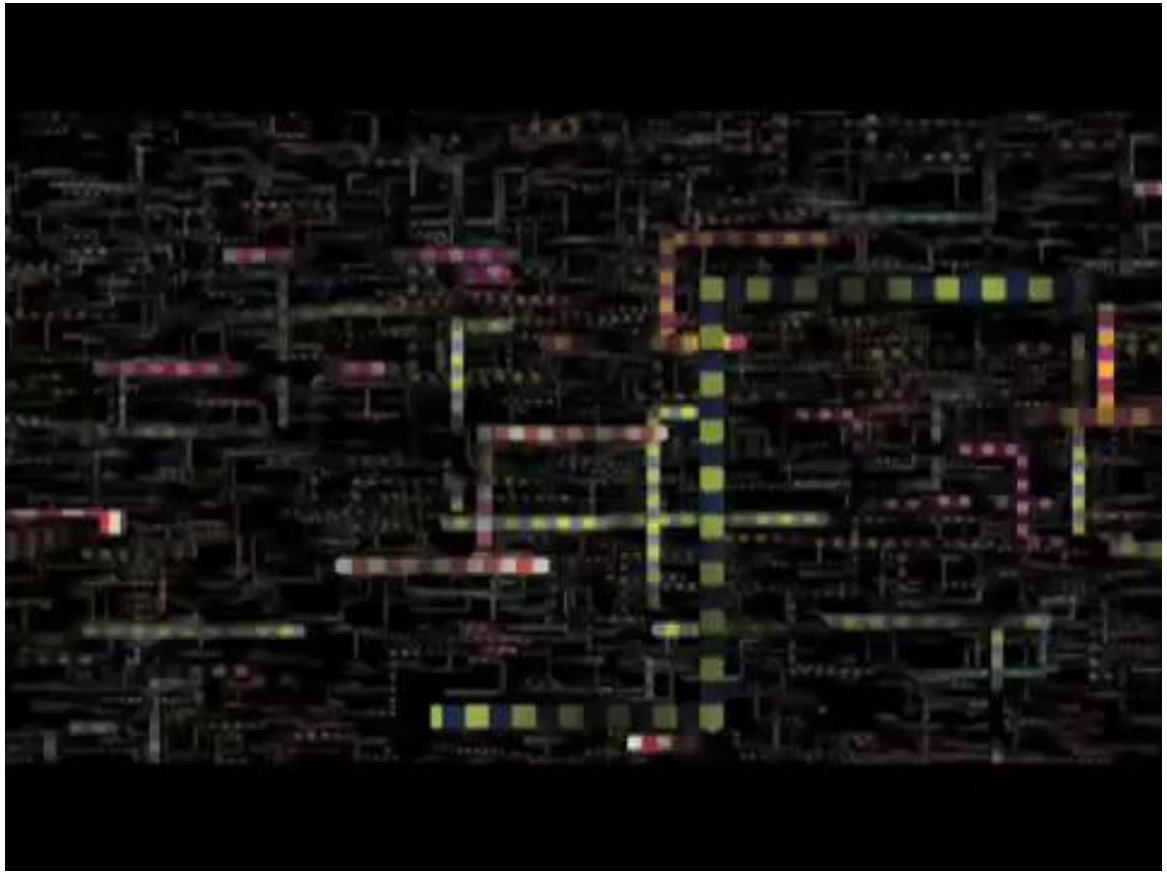
- In the economy of physical products:
  - Atoms cost money, have potential for quality problems, and take time to make and deliver

Can you think of examples of how these properties – free, perfect and instant – are TRANSFORMATIONAL in the economy of ordinary (not digital) goods?

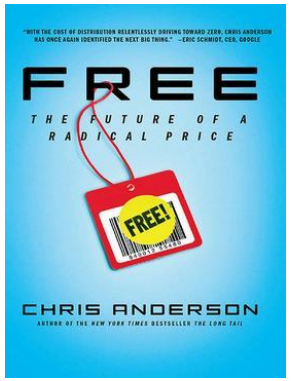
Implications of free, perfect and instant

- Properties that distinguish digital goods from physical goods:
  - Free - once something is digitized, it's free to make an additional copy of it
  - Perfect - unlike a photocopy of a photocopy, the quality of digital goods doesn't deteriorate with successive copies
  - Instant - the copy is made almost instantly and can be distributed almost instantly
- Interaction effect
  - In a combination, free, perfect and instant worth more than each of them separately
  - It is hard to compete against companies that use a combination of free, perfect and instant
- Digital businesses scale rapidly and compete aggressively with traditional firms that make, own, rent, or use physical goods
  - Even if fixed cost of production are the same, the overall cost advantage of digital would be significant because the marginal cost of *making and distributing additional copies is low*

Why $0.00 is the future of business



Video By Chris Anderson, "Free: The Future of a Radical Price" (3:18)
https://www.youtube.com/watch?v=RZkeCIW75CU



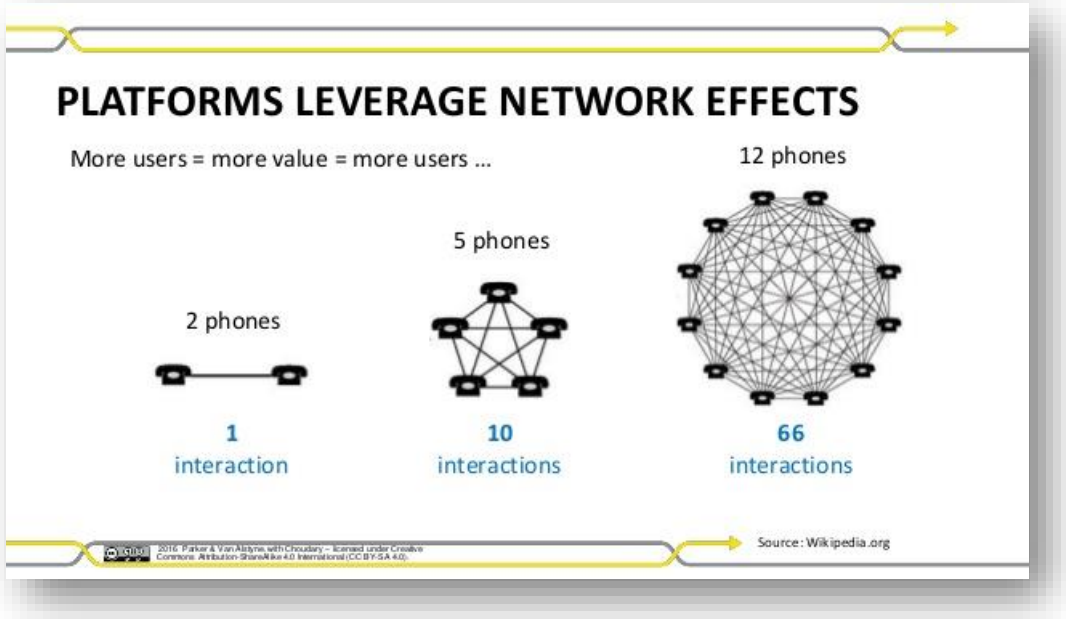
Benefits from an open platform for digital complements to a physical product

- The number of digital complements increases much more rapidly because the physical product benefits from two-sided network effects, with positive feedback between the number of physical product owners and the number of digital complement developers.

- The number of digital complements increases at much lower cost. These outside digital complement developers are providing free work to the platform because it is in their own interests to do so.

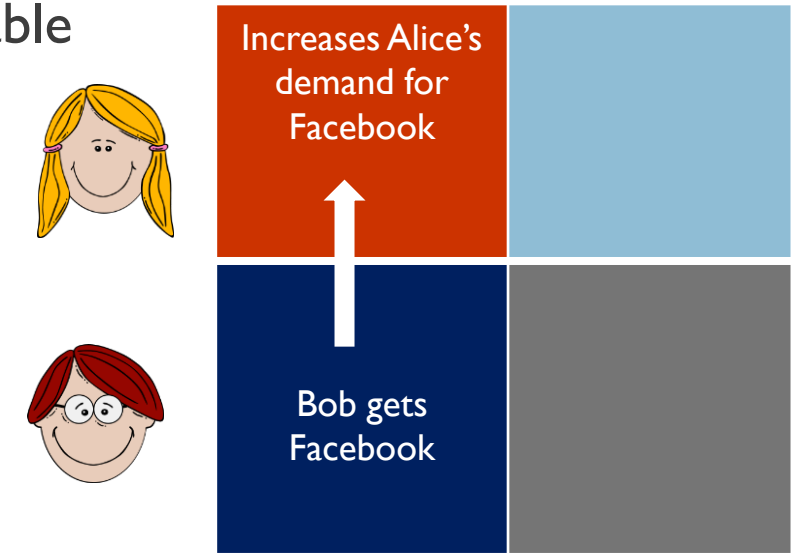
Platforms

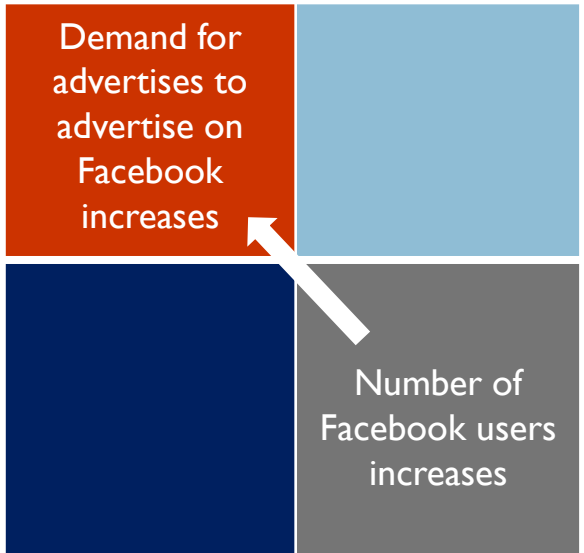
- Platform is a digital environment characterized by *near-zero marginal cost* of access, reproduction, and distribution
  - Marginal cost: the cost of producing or distributing one more item
- A digital platform aggregates supply and demand by connecting users who may be using the same product or complementary products
- Platforms can be built on top of each other
  - The World Wide Web is a platform built on top of the original Internet information transfer protocols
  - The Internet is a platform of platforms



Types of platforms

- Platforms connect:
  - one category of users - one-sided platforms (example: WhatsApp, Dropbox)
  - two categories of users - two-sided platforms (example: Lyft, Uber)
  - three or more categories of users - n-sided platforms (example: the Android system)
- Curation - encouraging other content that adds value and discouraging content that isn't as valuable





Example: Apple's two-sided iTunes platform

- App developers make their offering available to more consumers. The bigger the community of consumers, the more value developers can derive.
- Consumers get access to more apps. The more apps there are, the greater the benefit they get from owning the iPhone.
- The platform owner (Apple) sees its physical product gain value and can sell more products and charge a higher price.

Platform architecture

- Curation is an essential element of optimizing a platform to maximize the value it generates
- Platform architecture: issuing a strict set of guidelines that participants have to meet
- If the added participants or their products are low quality or have negative effects on the community, the network effects of growth can hurt the business
- Balance: creating a larger network faster // creating a higher-quality network slower
- Platform owners typically run experiments to gather data to inform their decisions because trade-off between quantity and quality not obvious
- Mind–machine balance
  - machine side of the balance: automated filters and abuse-reporting systems to detect existing objectionable content or remove participants who violate the terms of service
  - mind side of the balance: fundamental decisions about *curation* belong on the

Early adopters

- Network effects are great for networks that have reached critical mass or are larger than their competitors
- But, starting a new network can be hard because the first customers won't see the benefits of the network until it grows

Example

- Stripe built a platform that attracted two groups of participants: merchants who want to get paid, and financial institutions involved in delivering payments to merchants.
- They used a strategy employed by the networked multiplayer online games.

Thank You

For references contact your instructor at nmilovantseva@hse.ru