

# "Big Data and "The Next Information Revolution""



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**The new information revolution will  
surely engulf *all* major institutions  
of  
modern society.**

**Peter Drucker. The Next Information  
Revolution. Forbes ASAP, 1998**

# P. Drucker disappointment in 1998

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- One can see the radical changes brought to the world in XV century by Gutenberg: new religion, the occurrence of the education system due to printing books for universities, World of Discovery due to geographical maps printed ...
- Looking for signs of revolutionary changes in modern world in 1998, P. Drucker bitterly stated, that he can't find them
- The business world is still living in accounting axioms formulated 500 years ago by Luca Bartolomeo de Pacioli, which contains no internal incentives for IT-innovative development
- cuneiform script, Chinese character, first written book Homeros

# THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley



Top 5 Publicly Traded Companies (by Market Cap)



Tech



Other



visualcapitalist.com



# There is the World Information Economy

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- What are its characteristic features?
- **Data** are the main assets and they are really big.
- Shoshan Zuboff: Surveillance Capitalism species of Information Capitalism.
- Information capitalism is a result of merge information and industrial revolutions.
- Shoshana Zuboff. *Big other: surveillance capitalism and the prospects of an information civilization. Journal of Information Technology (2015) 30, 75–89*

# Case study: GOOGLE. One business model

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- Numerous free services - search, email, maps, photos, websites, and others.
- Contextual advertising
- The perfect algorithm for text analysis

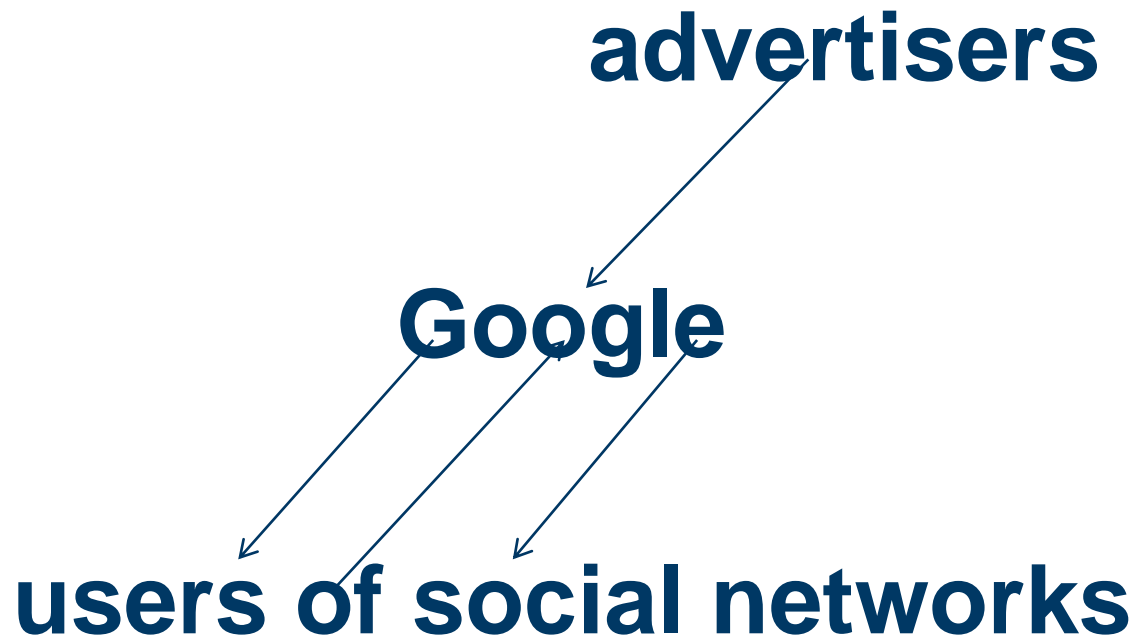
## • Model Pay-per-Click

- Google now holds 40.1% of the total online advertising market in the United States, which amounted to \$ 58.12 billion in 2015.
- The number of advertisers in the millions
- Billions of users

# How it may work

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Software agents – collect, store, process, analyze, present Data



# What's unusual there?

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- **There are few workers and employees in this economy**

*The top three Silicon Valley companies in 2014 had revenues of \$247 billion, only 137,000 employees, and a combined market capitalization of \$1.09 trillion.*

*In contrast, even as late as 1990:*

*The three top Detroit automakers produced revenues of \$250 billion with 1.2 million employees and a combined market capitalization of \$36 billion*



# What's unusual there?

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- **Users can use their own computers and software *purchased from Google* to search by click and *bring revenue to Google***
- **Google does not pay clicks: the DATA –asset are collected for gratis**
- **The only compensation for user will be permit to click for gratis.**
- **As far as there is no employer and employee in the process of adding value – there is no social contract between information capitalist and society.**

# What may be wrong with surveillance capitalism ?

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- **Danger for privacy.**
  - Personal
  - Economical – mortgage and insurance: freedom from uncertainty is no freedom
- **Huge influential power is concentrated in information capitalism centers, while reducing their responsibility to society**
  - – case Trump

# Lessons for Didactic

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- **Watch our curriculum:**

- Can we explain, what are the productive forces and the relations of production in surveillance capitalism ?
- Question by Hal Varian (Chief Economist of Google): Don't we overdose lessons in econometrics helping few to solve the problems of predictive economics?
- Are we serious enough, teaching life safety basics without discussion of internet behavioral danger?



**Questions?**