DataScientist Society

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Building new calibers in the data-driven economy

2014 OECD Global Forum on the Knowledge Economy

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My roles …

YAHOO! JAPAN — Chief Strategy Officer

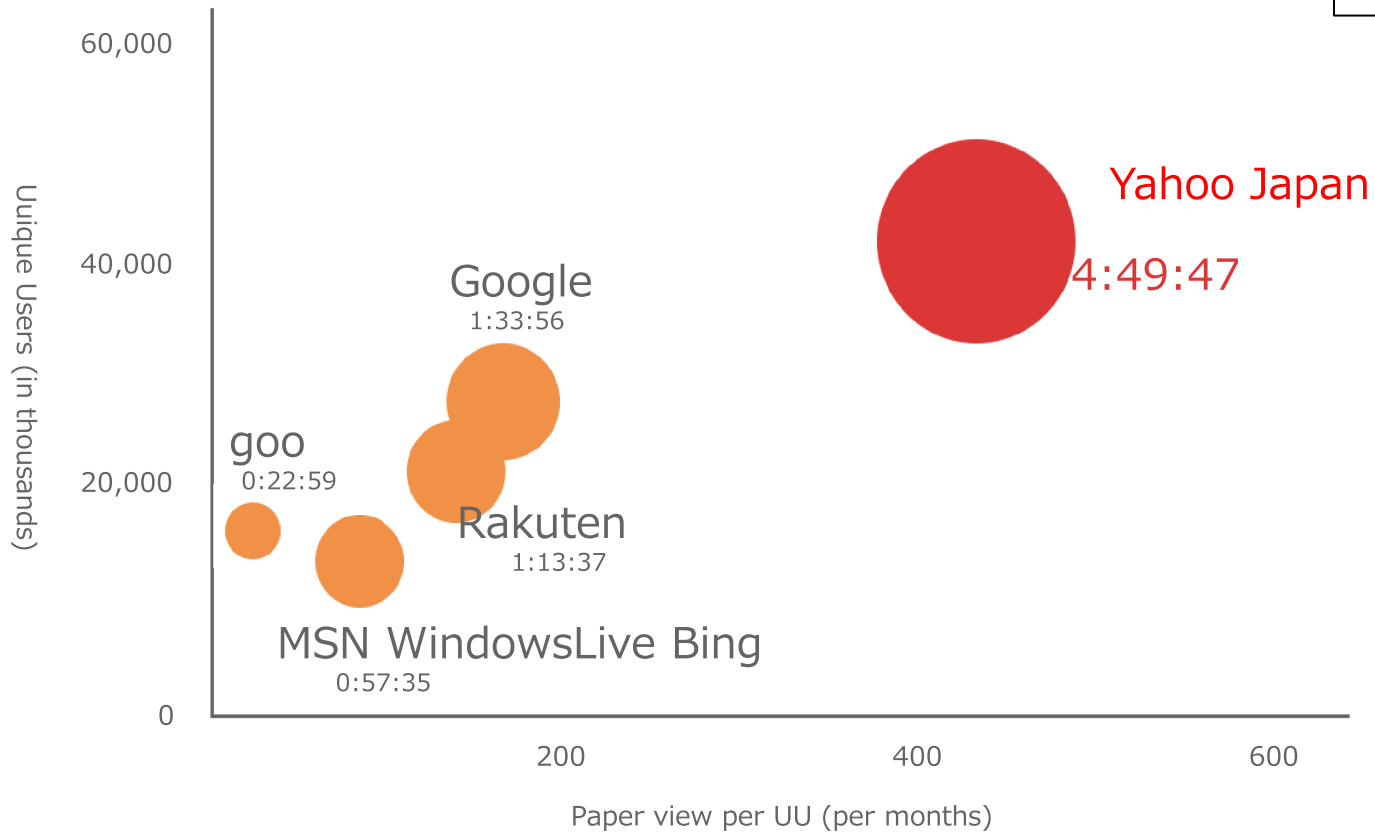
DataScientist Society — Director
Chair, Skill Definition Committee

Japanese Society of Applied Statistics 応用統計学会 — Director

Presence in the market

Size of each circle: time spent per month

desktop

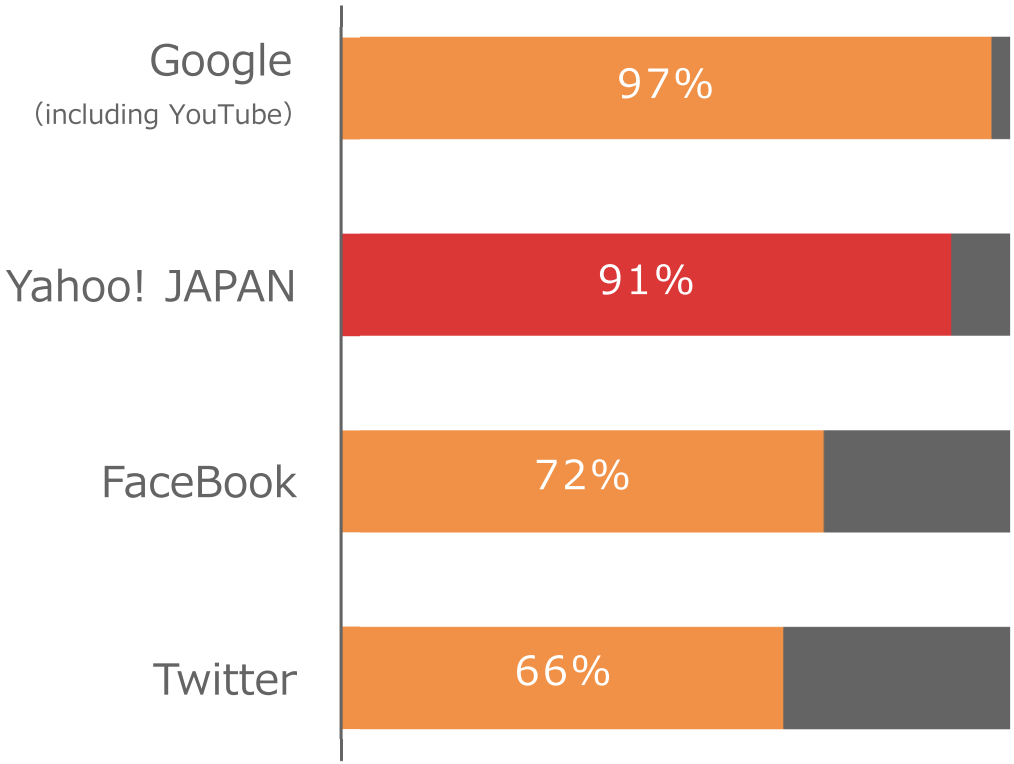


Source : Nielsen NetView Feb 2014: brand level, both home and office access

Reach in smartphone users

%: reach

Smartphone



Source : Nielsen MobileNetView March 2014, Parent level

A multi big data company

News	YAHOO!	⟷	YAHOO! JAPAN ニュース
Search	Google	⟷	YAHOO! JAPAN 検索
Shopping	amazon	⟷	YAHOO! JAPAN ショッピング
Auction	ebay	⟷	ヤフオク!
Payment	PayPal	⟷	YAHOO! JAPAN ウォレット
FX	E*TRADE	⟷	YJFX!

DataScientist Society

Background

- Lack of clear definition of buzz word “data scientists”
- Increasing mismatch between employer’s expectations and skillsets
- Difficult to obtain expected results from analyses on business use cases

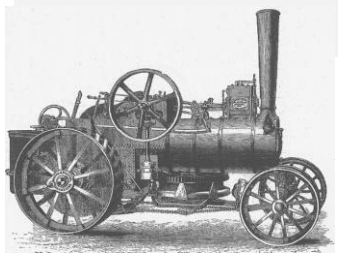
Aims

- To define skill sets required for the new data professionals (“data scientists”)
- Establish skill development and evaluation criteria
- Provide open environment to interact each other for the data professionals

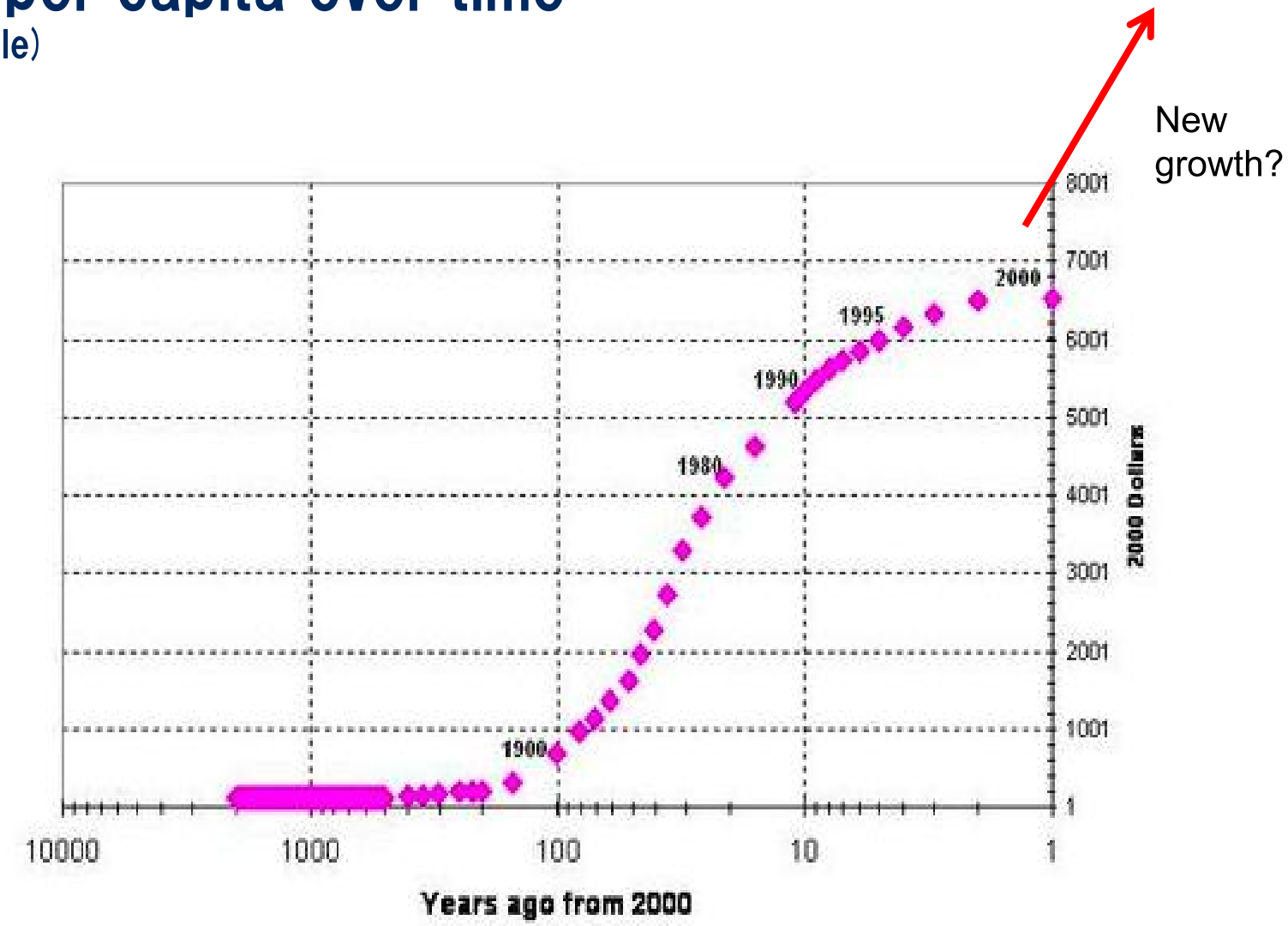
What is the Data Scientist?

They are to liberate the power of the data

	Industrial Revolution	ICT revolution (Industrial revolution II)
New resources	• Coal and oil • Steam engines • Electrical power	• Sensors and Data • Computing power • Broad band network • Wireless network
Nature	• Liberate human and livestock from manual and hand labor	• Liberate human from tedious number crunching



GDP per capita over time
(log scale)

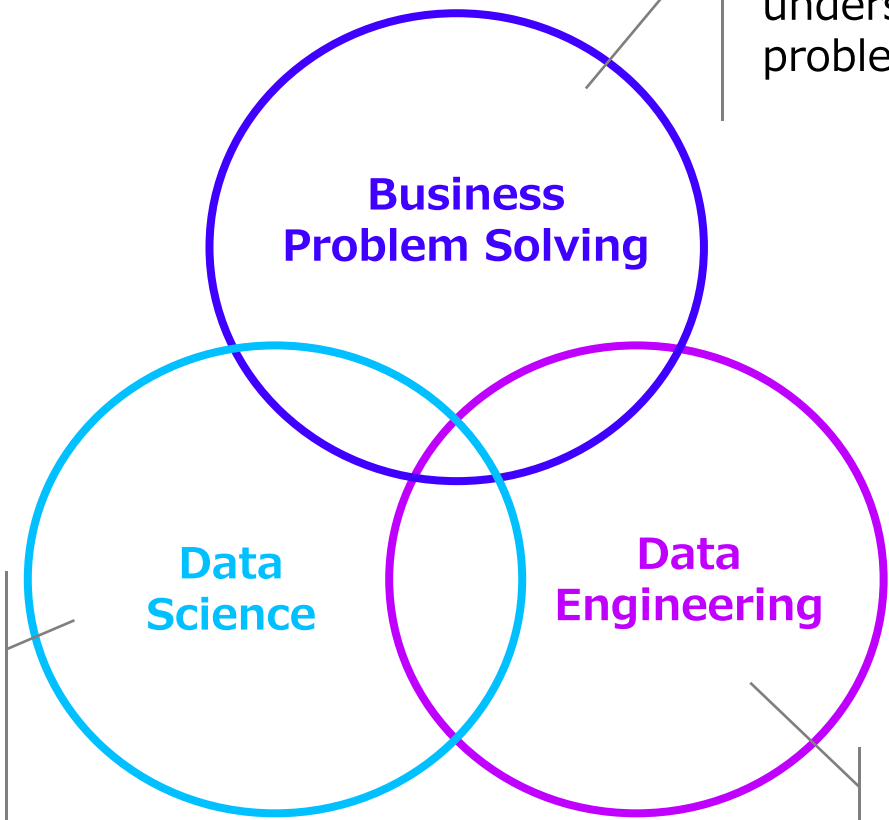


Source: J. Bradford DeLong “Estimates of World GDP”, One Million B.C. – Present” (1998)

http://www.singularity2050.com/accelerating_change/

Three key skillsets

Skills to define and solve business issues based on understanding of the problem background



Skills to understand and utilize knowledge from data science including various information processing and artificial intelligence

Skills to leverage, install, and run data science in actual data flow

Source: The Japan Data Scientist Society discussios

So Data Scientists are

… Professionals
who create values from data
and answer the business problems
based on their expertise
on data science and data engineering

Source: The Japan Data Scientist Society discussios

Some issues going forward

Lack of basic data literacy … statistics, analytical thinking, data-driven thinking (i.e., top management cannot understand the depth and width of this new challenges)

Lack of teachers and training systems … too much emphasis on pure data science

Lack of total business architects and translators bridging data, actual business and policy makers

Lack of alignment of data utilization policies