

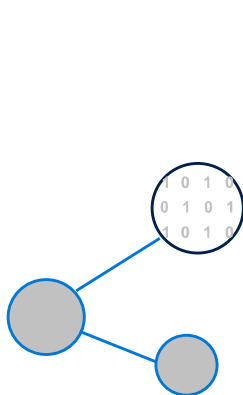
The 4th Industrial Revolution

Lesson 1

PROFESSIONAL & CONTINUING EDUCATION
UNIVERSITY of WASHINGTON



The 4th industrial revolution

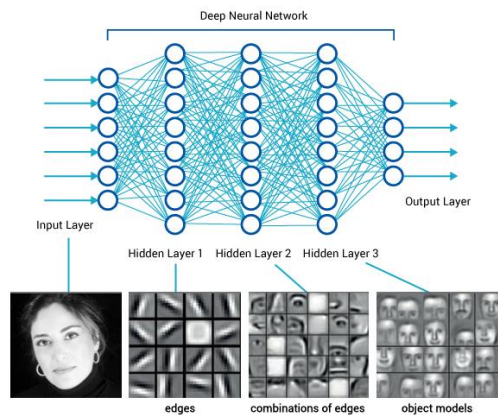


Big Data and IoT

Source : www.britannica.com



AI



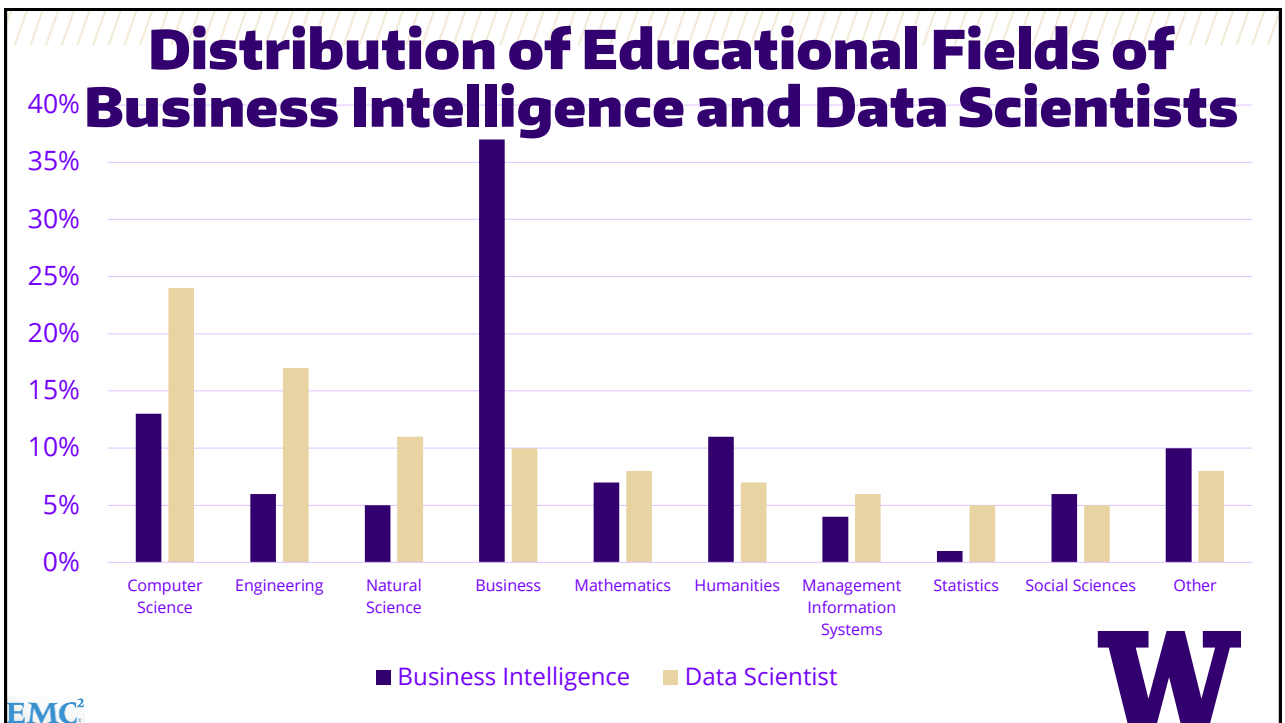
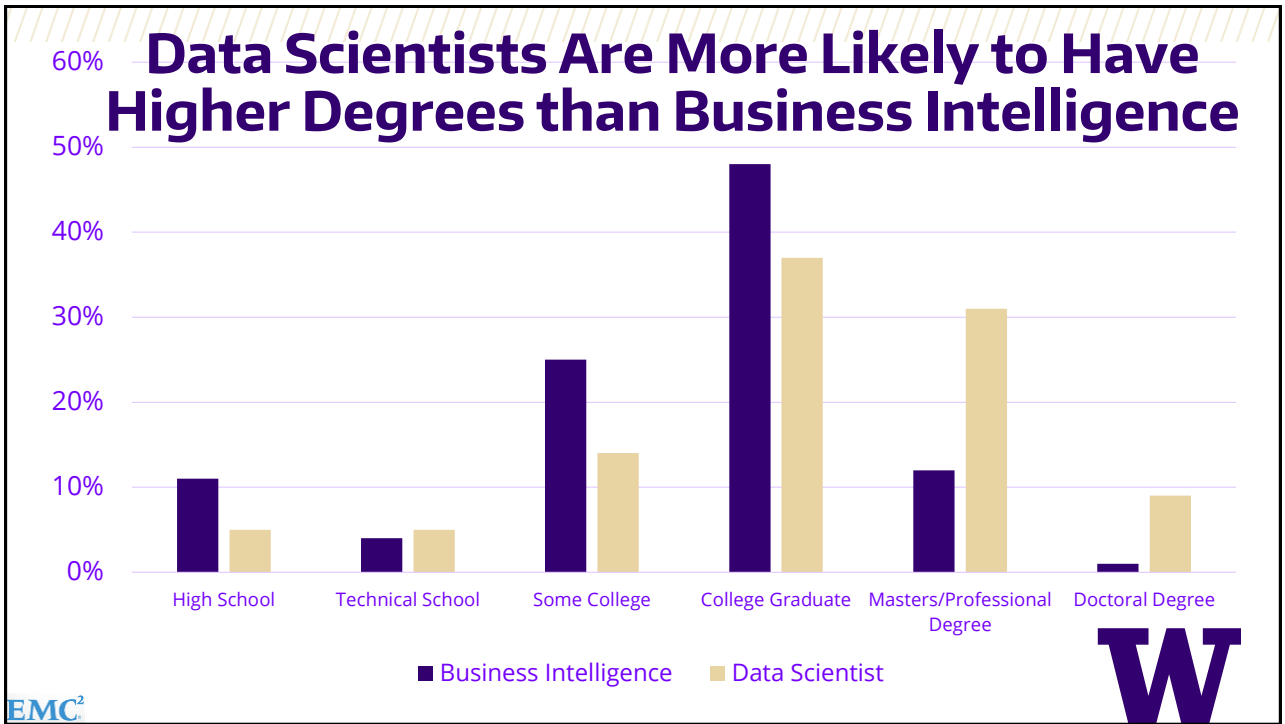
Cloud Computing

Data Scientist: The Sexiest Job of the 21st Century

- Based on Harvard Business Review in Oct 2012
- 65% of enterprises feel they have a **strategic shortage of data scientists**, a role many did not even know existed 12 months ago...

Where Can We Get New Data Scientists?

Sources of Talents	Percentage
Students Studying Computer Science	34%
Professionals in disciplines other than computer science	27%
Students studying in fields other than computer science	24%
Today's business intelligence professionals	12%
Others	2%



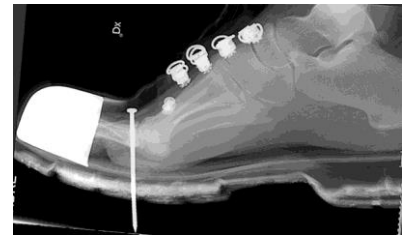
Will Deep Learning/AI Make Data Scientists Lose Their Jobs?

- The most time consuming and most interesting part of data science is feature engineering/selection
- Deep Learning: looks like it does not need feature engineering/selection, just pass the raw data in, and get a model out.

Machine Learning

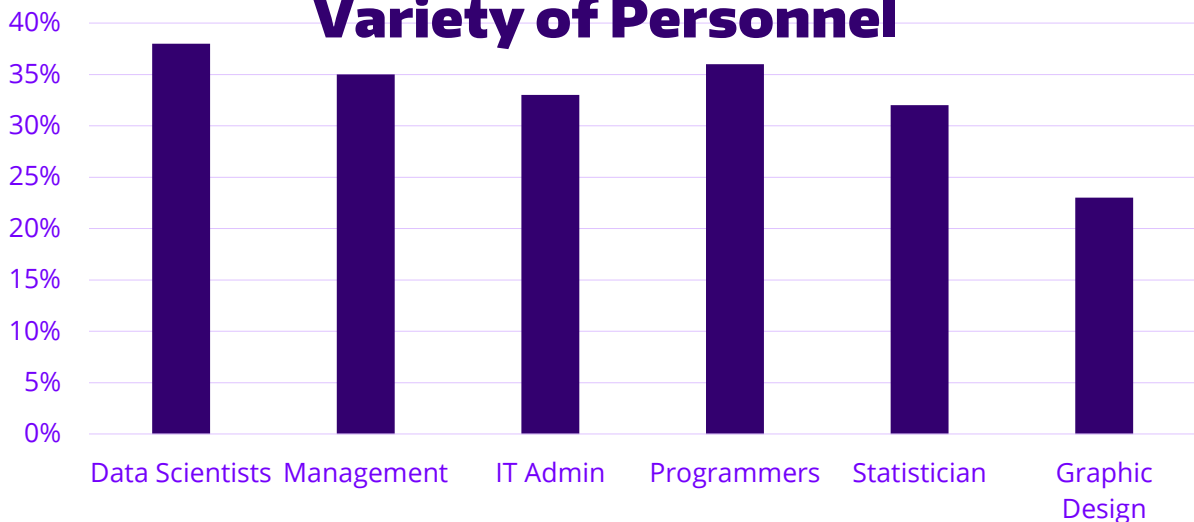


Deep Learning



Deep Learning w/o Careful Data Scientist Supervision

Data Scientists Collaborate with A Big Variety of Personnel



Summary

- >4th industrial revolution
- >Where to get new data scientists
- >Data scientists knows wider, and have higher education than business intelligence
- >Data scientists are still highly valuable in the age of artificial intelligence (deep learning)

