



DEEP
LEARNING
INSTITUTE



DLI Accelerated Data Science Teaching Kit

Lecture 1.3 - Why is Data Science Important?



The Accelerated Data Science Teaching Kit is licensed by NVIDIA, Georgia Institute of Technology, and Prairie View A&M University under the [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

**Why is Data Science
Important?**

Why is **data science** important?

- Data Science **unlocks potential** of data in solving **societal challenges** and **large-scale complex problems across domains**, from business, technology, science, engineering, healthcare, to government, and many more.
- As data continues to grow in volume, velocity and complexity, there is a **strong demand** for data science talents to help design the best solutions.

Why is **data science** important?

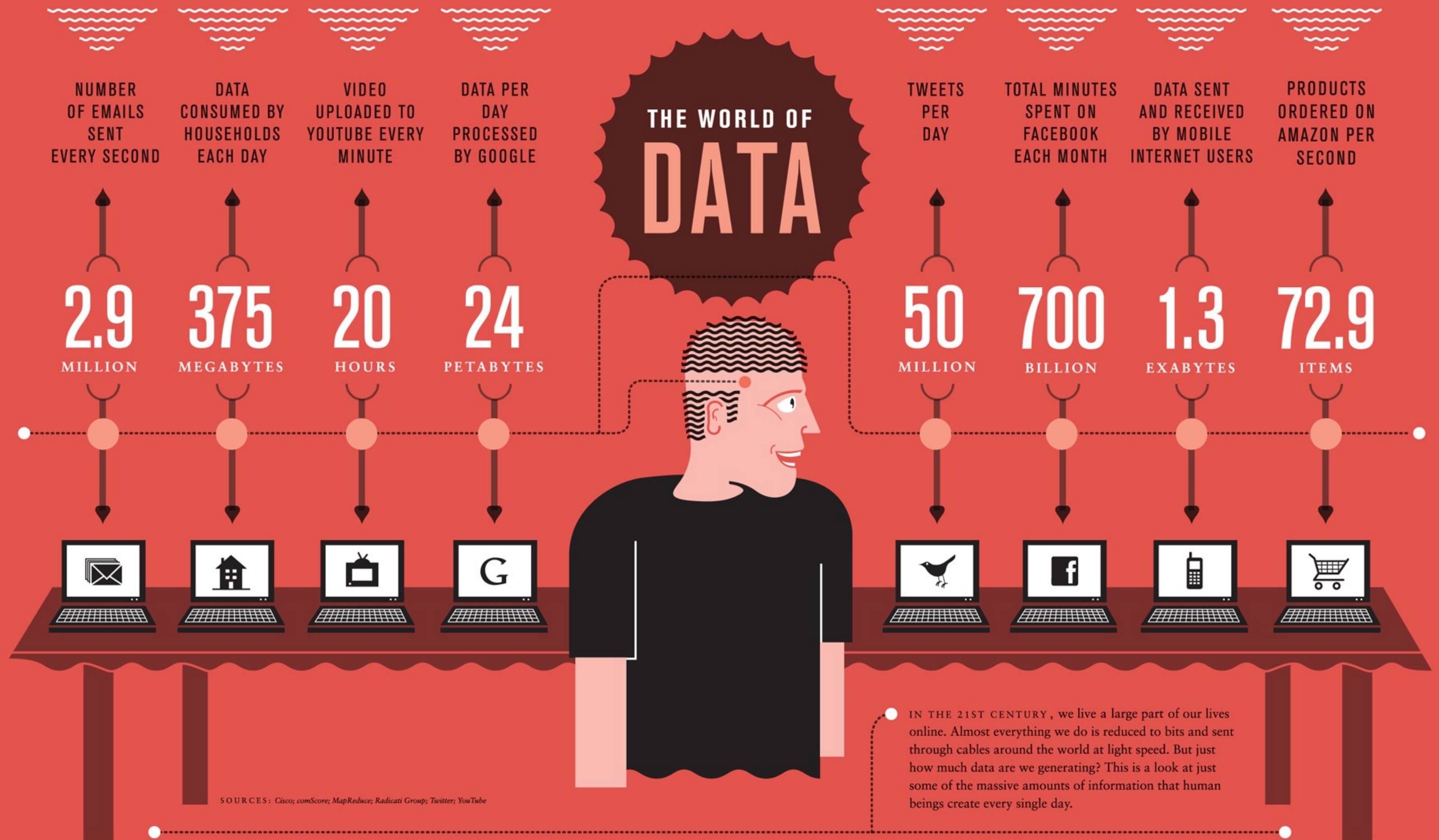
- “Data, and the capability to extract useful knowledge from data, should be regarded as **key strategic assets**”
— *Data Science for Business*
- **Data-analytic thinking** helps you
 - Assess whether and how data can address a problem
 - Envision opportunities for data-driven decision making
 - See data-oriented competitive threats
- Important to understand data science **even if you never intend to apply it yourself!**

What are the “**ingredients**” of data science?

Need to consider:

storage, complex system design, scalability of algorithms, statistical tests, visualization techniques, interaction techniques, etc.

Above issues often become more complex with **big data**.



What is **big data**? Why care?

Many businesses are based on big data.

Search engines: rank webpages, predict what you're going to type

Advertisement: infer what you like, based on what your friends like; show relevant ads

E-commerce: recommends movies/products (e.g., Netflix, Amazon)

Health IT: patient records (EMR)

Finance

Good news! Many jobs!

Most companies are looking for “data scientists”

*The data scientist role is critical for organizations looking to extract insight from information assets for ‘big data’ initiatives and requires a **broad combination** of skills that may be fulfilled better as a team*

- Gartner

<http://www.gartner.com/it-glossary/data-scientist>

Breadth of knowledge is important.
This course helps you learn some important skills.



DEEP
LEARNING
INSTITUTE



DLI Accelerated Data Science Teaching Kit

Thank You