

# Introduction to Data Science



Real World Examples

Data Science Jargons

Why Data Science now?

Big Data & where it fits

Life Cycle of Data Analytics Problem

Data Analytics project Framework

Spectrum of Data Analytics

Data Science Essentials

Study Path

Case Study

# YouTube Auto play



#Peppa #PeppaPig #PeppaPigEnglish

Peppa Pig Official Channel ★ NEW SEASON ★ Making a Dragon with Peppa Pig

6,381,964 views • Jan 8, 2020

22K 11K SHARE SAVE ...

Up next

AUTOPLAY ☒



Peppa Pig Official Channel |  
Peppa Pig Celebrates Mother's...

Peppa Pig - Official Channel ✓  
16M views



Row Row Row Your Boat |  
+More Nursery Rhymes & Kids...

Cocomelon - Nursery Rhymes ✓  
113M views



Peppa Pig Official Channel |  
Peppa Pig, Daddy Pig and...

Peppa Pig Asia  
1.4M views



Peppa Pig Official Channel |  
Peppa and the Brick House!

Peppa Pig - Official Channel ✓  
33M views

Devil King Catches Kiki's  
Friends | Math Kingdom...

BabyBus - Kids Songs & Nursery ...  
8.9M views




Peppa Pig Full Episodes |  
Chole's Big Friends | Cartoons...

Peppa Pig Asia  
1.5M views



Peppa Pig Official Channel |  
Peppa Pig Plays with Penguin...

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Data Science/ ML-AI / Business Analytics

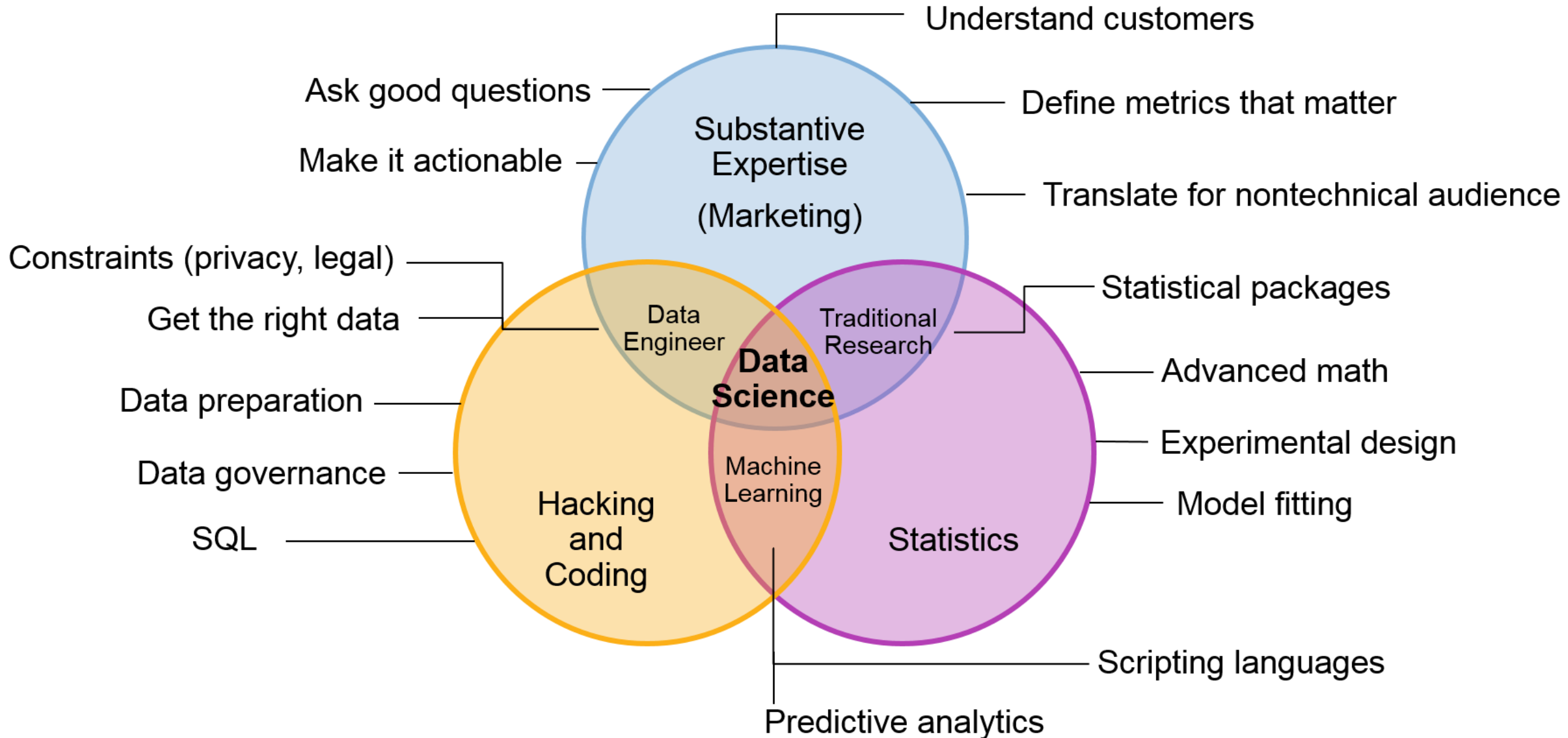


# Formal Definition

“Business Analytics can be defined as the broad use of **data** and **quantitative** analysis for **decision making** within organizations”.

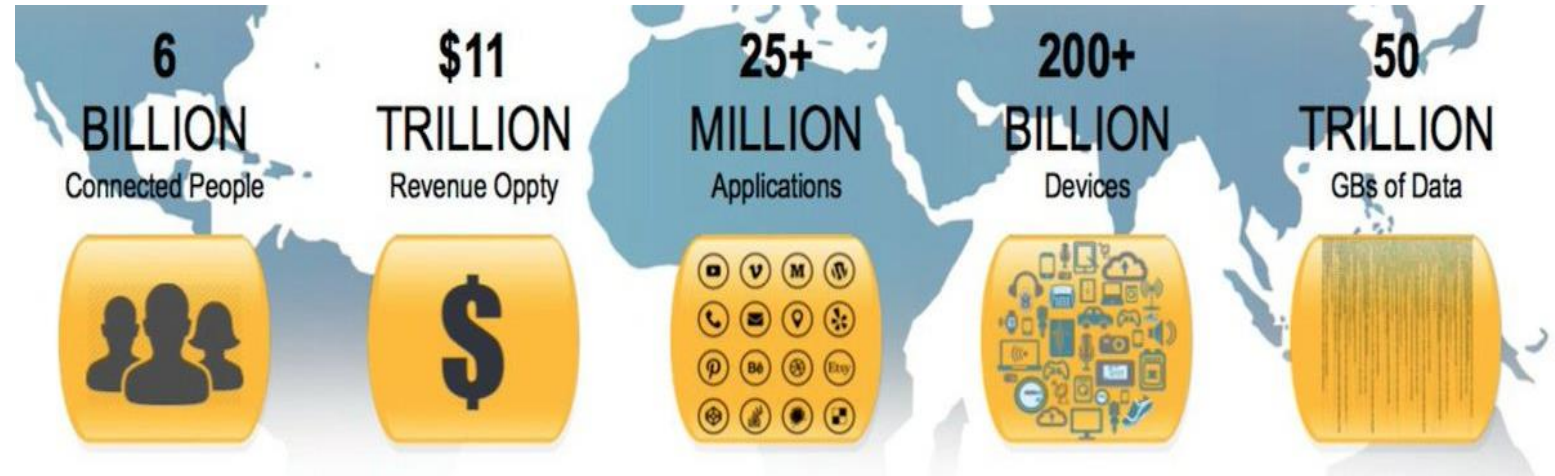
Thomas H Davenport

# What is Data Science?



# What is Changed?

Data & its velocity



Computation Power



CPU

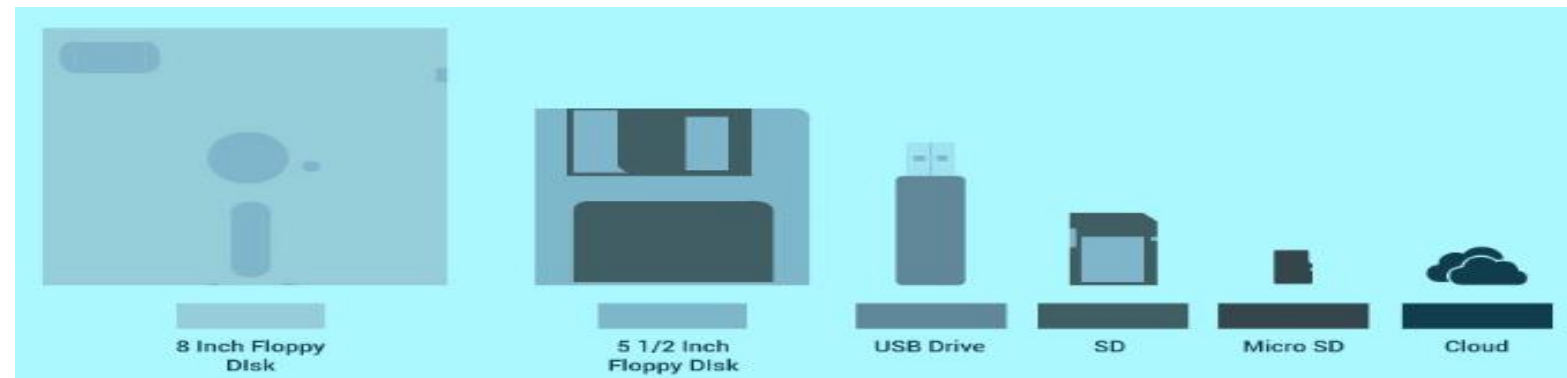


GPU









TPU

Storage





# The Six V's of Big Data

VOLUME	VARIETY	VELOCITY	VERACITY	VALUE	VARIABILITY
The amount of data from myriad sources.	The types of data: structured, semi-structured, unstructured.	The speed at which big data is generated.	The degree to which big data can be trusted.	The business value of the data collected.	The ways in which the big data can be used and formatted.
					

Walmart handles over one million purchase transactions per hour.  
Facebook processes more than 250 million picture uploads per day.



# Stories

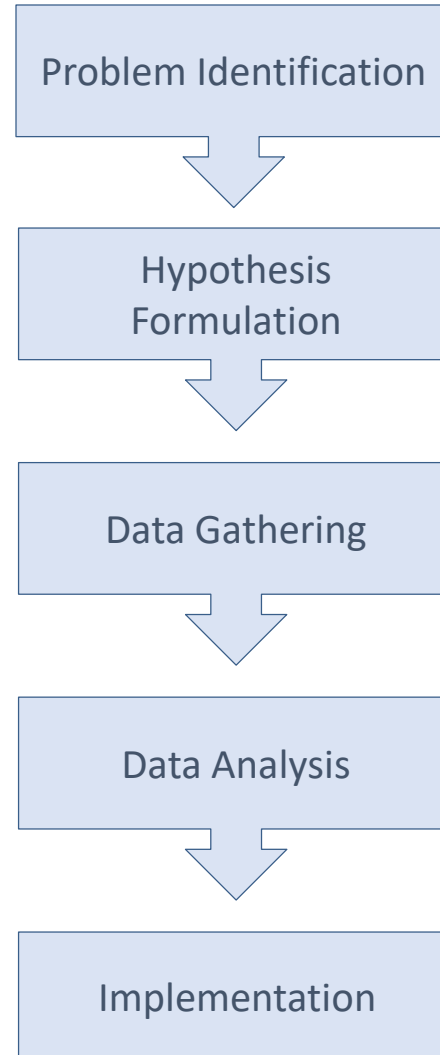


Target Corporation is the eighth-largest retailer in the United States, and is a component of the S&P 500 Index

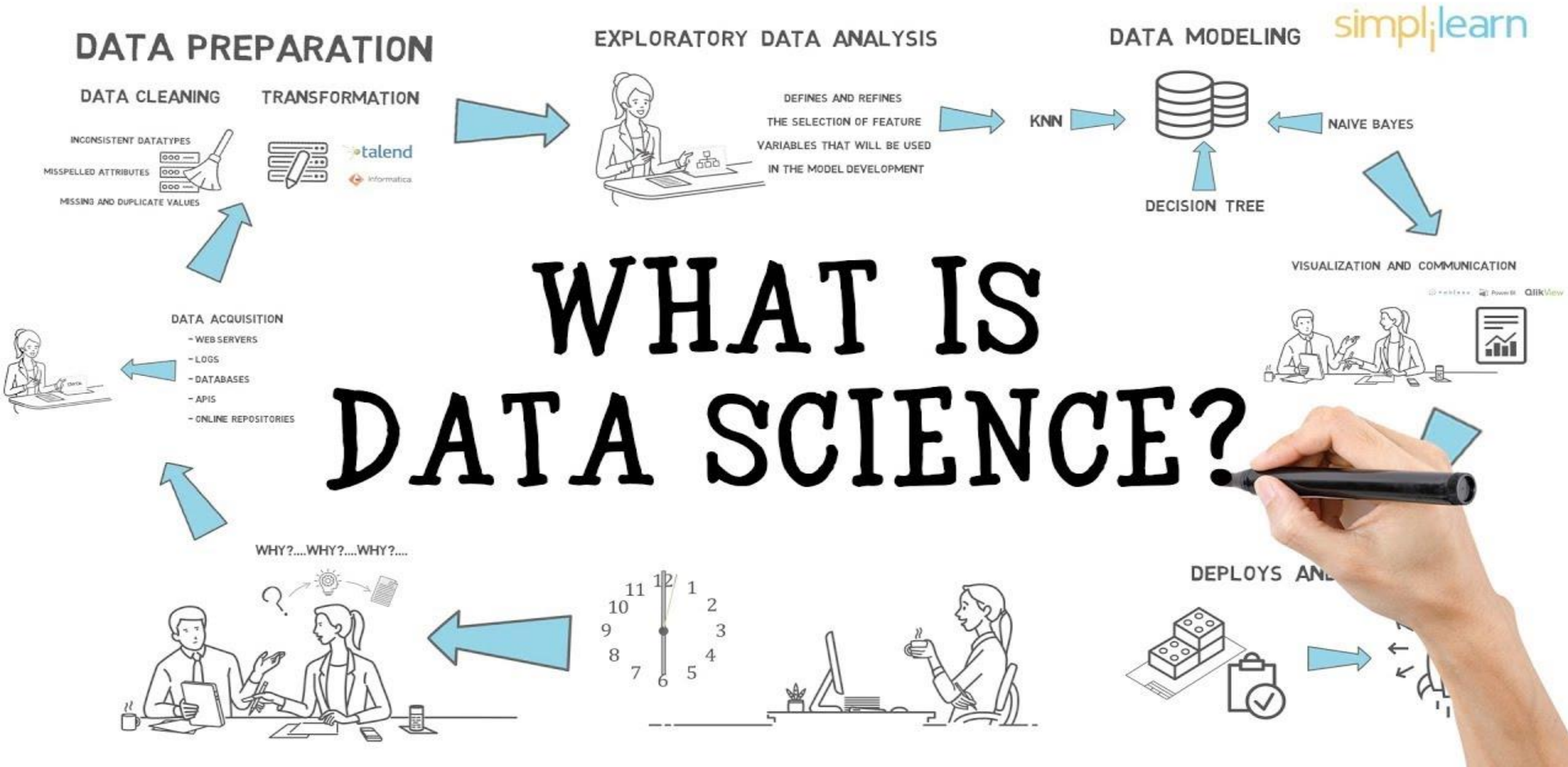


AlphaGo is a computer program that plays the board game Go. It was developed by DeepMind Technologies which was later acquired by Google

# Lifecycle of Data Analytical problem



# What is Data Science?





Feel the change Data Science could bring





# Questions

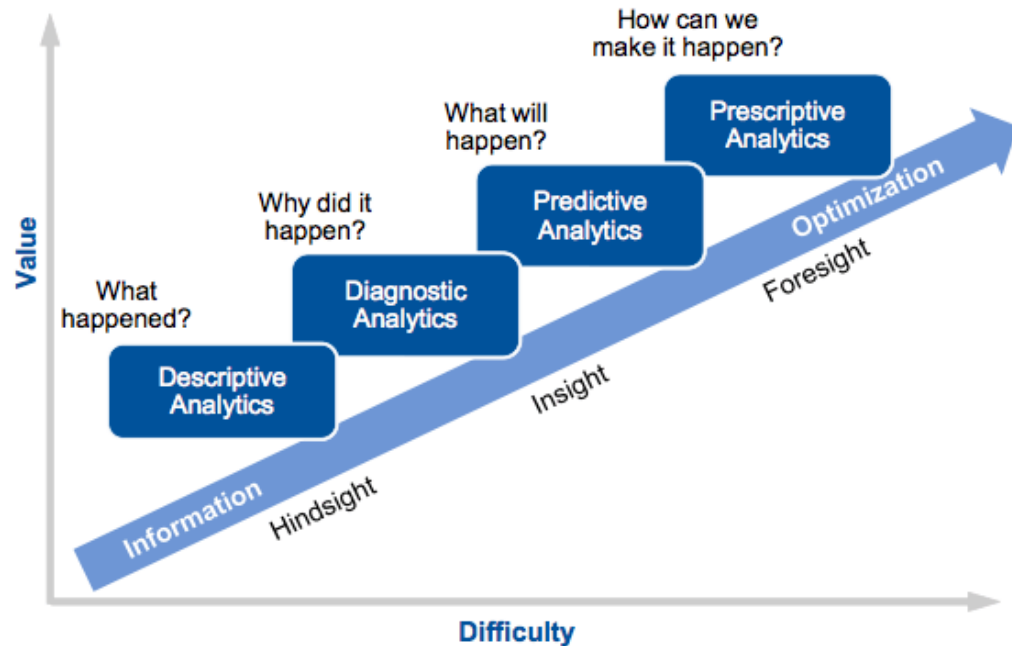


Now do you have  
idea about AI, ML,  
Business Analytics,  
and Data Science?

# Data Science Project Framework

## Data Science – D2P2 Framework

Figure 2. Gartner Analytic Ascendancy Model

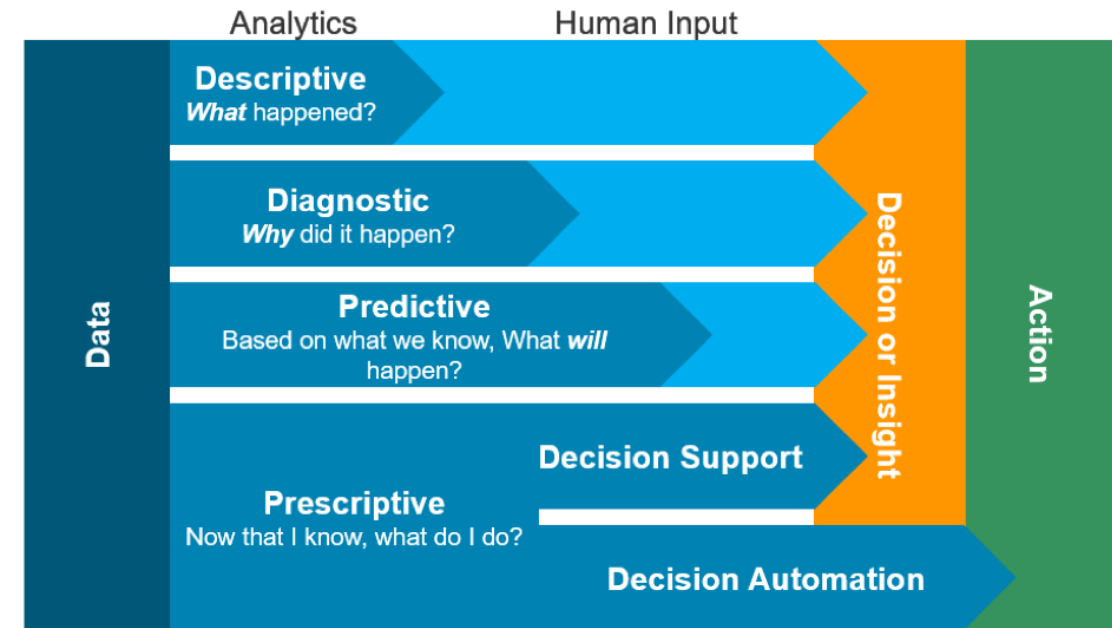


Source: Gartner (March 2012)

Data Science

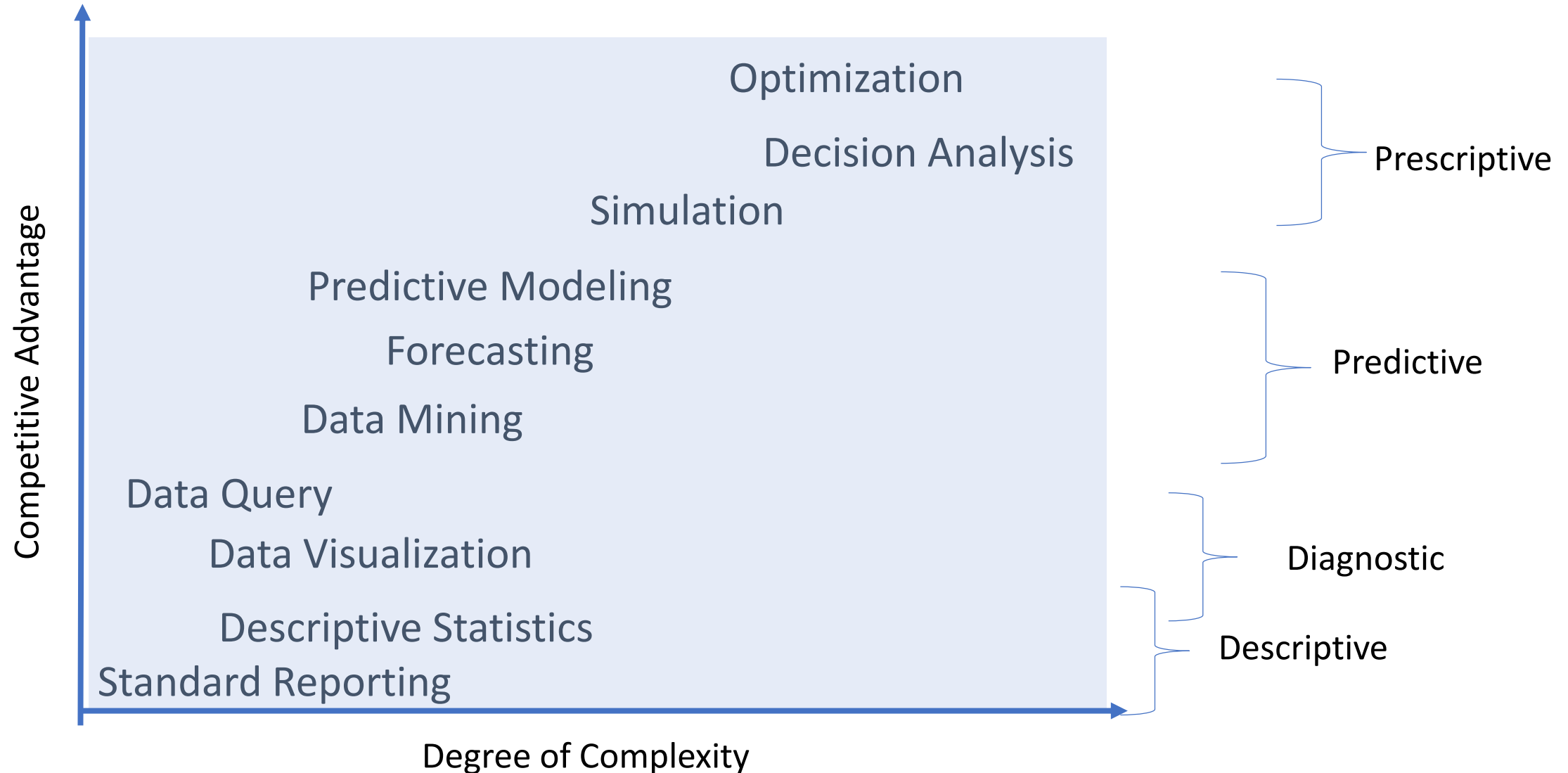
AI

## Analytics, Human Inputs & AI/ Machine Learning



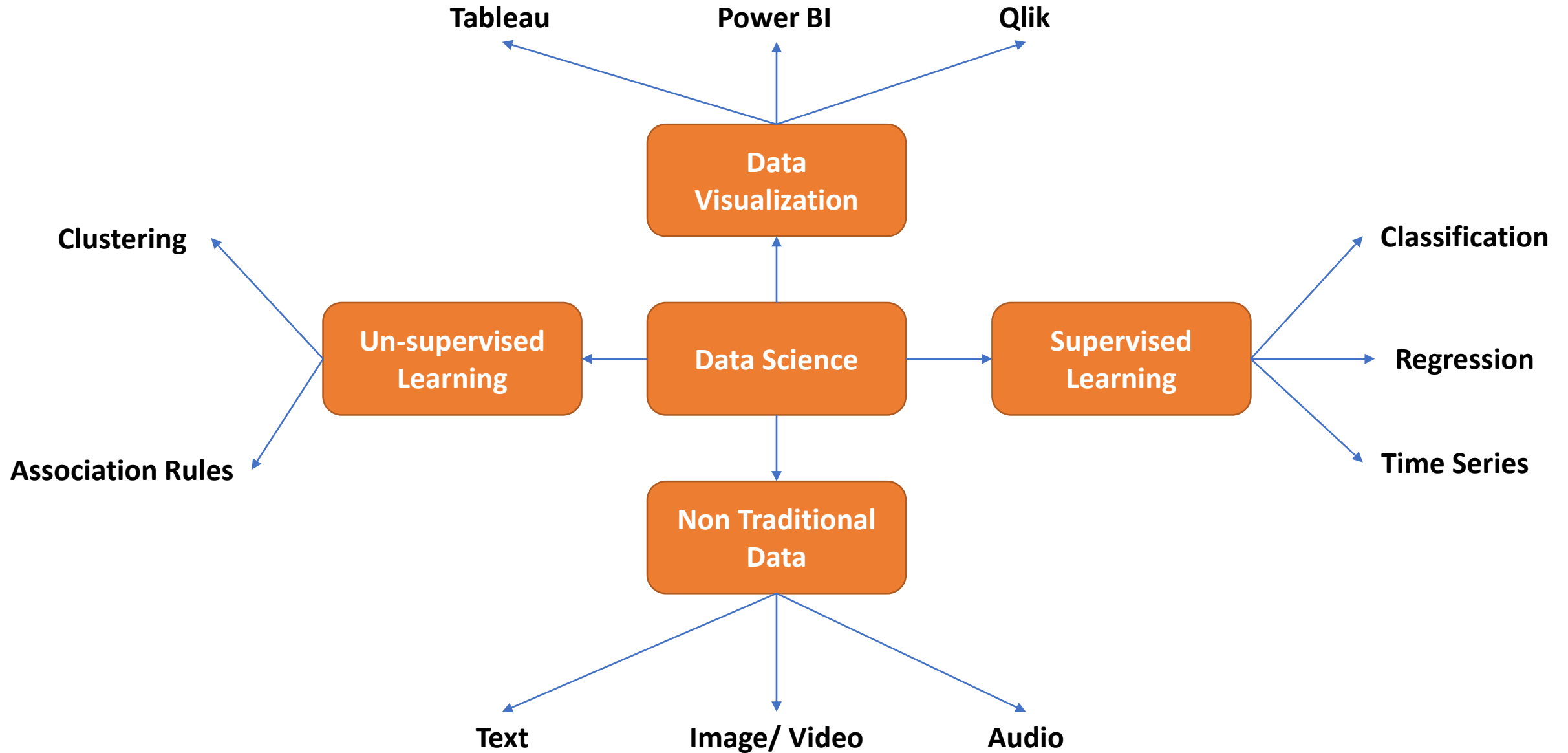
Adapted from Gartner Report July 2015

# Spectrum Of Data Analytics





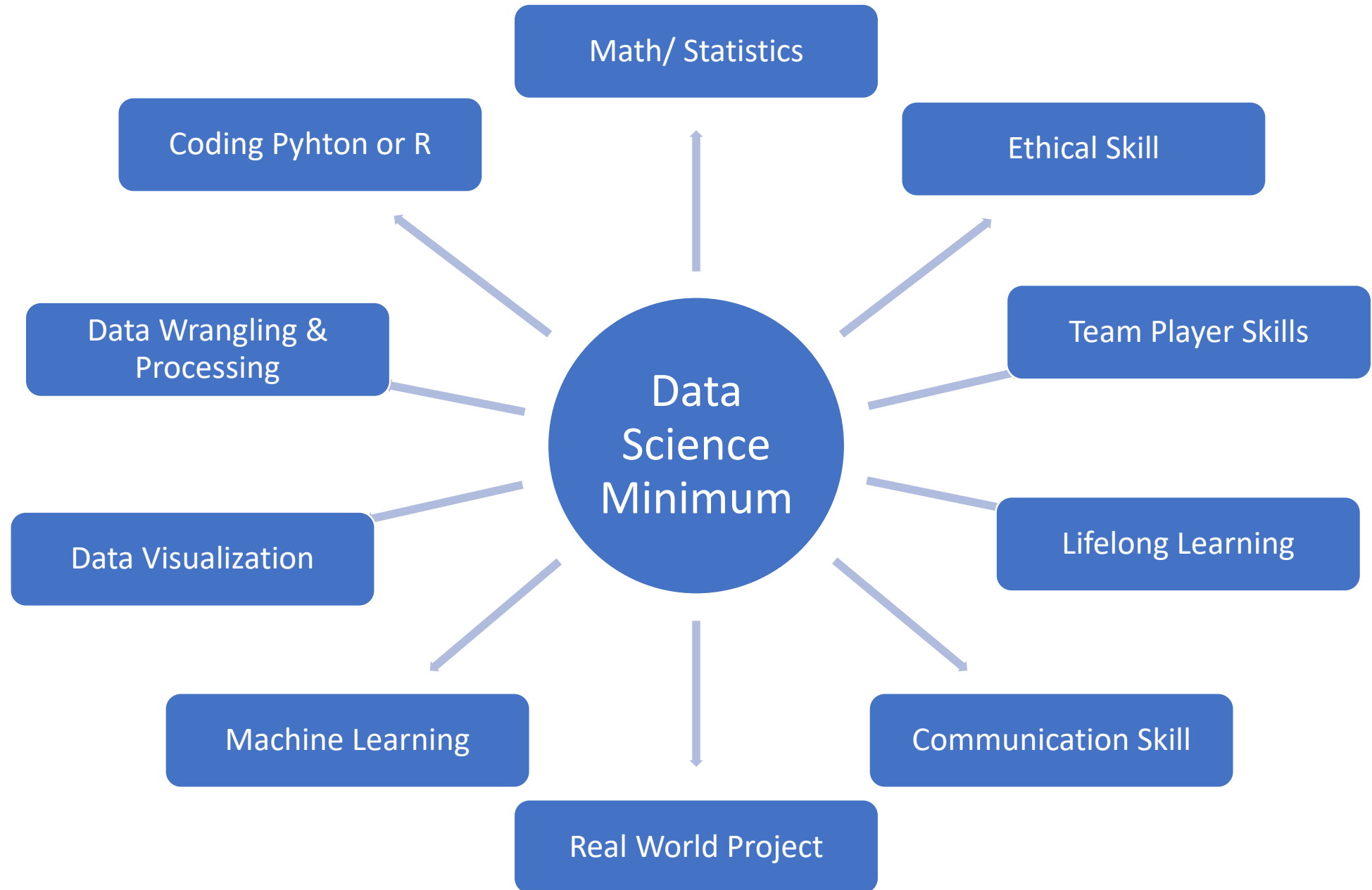
# What is Data Science?



# Programming Languages



# Minimum Requirement



# Data Science Essentials

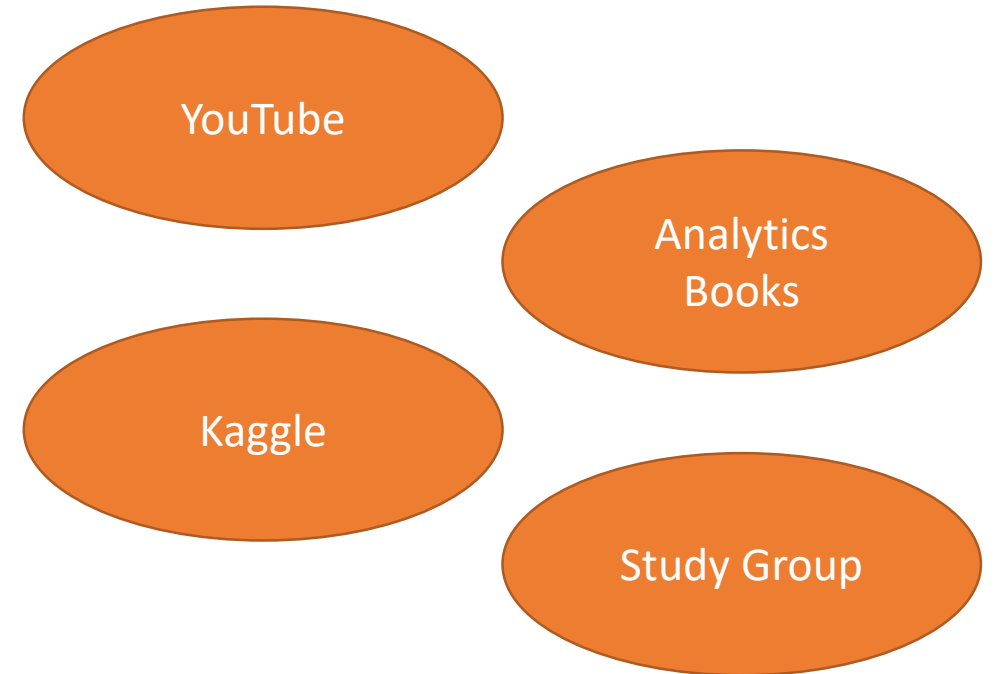
- ☐ Maths / Stats orientation
- ☐ 1 programming language – Python or R
- ☐ 1 Cloud based platform (Nice to have) – AWS, Azure, Google Cloud
- ☐ Competition / Hackathon - Kaggle, Analytics Vidhya etc.
- ☐ Database / SQL knowledge



# Questions

# Study Path

- ☐ Basic Statistics & Advance Statistics
- ☐ 1 programming language – Python or R – We can vote for which to choose
- ☐ Optimization Technique
- ☐ Unsupervised Learning
- ☐ Supervised Learning
- ☐ Time series Analysis
- ☐ Data Visualization
- ☐ Deep Learning
- ☐ Big Data Analytics



# Feedback Form