

# DATA ANALYSIS

## INTRODUCTION

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form 3'-hydroxymobarbital [12] and  
M-glucosidation [13] to form  
1-(beta-D-glucopyranosyl)amobarbital [14]

When given slowly by an intravenous route, sodium amobarbital has a reputation for having activity as a so-called truth serum. A person under the influence of the drug in this circumstance will relate information that he or she would otherwise "block." As such, the drug was first employed criminally by Dr. William Bleckwenn at the University of Michigan to circumvent inhibitions in psychiatric patients [15]. It has been used to convict alleged murderers such as Fredrick English-Howard, who strangled his girlfriend to death but claimed innocence. He was surreptitiously administered the drug, by his attorney, and under the influence of it he confessed and he strangled her and under which circumstances, 15 years later he confessed on the witness stand, in a public trial, to the murder.

ADMINISTERED

# GRADING SYSTEM



30%

PRELIM

30%

MIDTERM

40%

ENDTERM



50%

LABORATORY

50%

EXAM



0

ABSENT

3

45-min LATE

5<sub>max</sub>

15-min LATE



# TOPIC OUTLINE

## Types of Data

Qualitative

Quantitative

## Data Analysis

## Data Analytics

## Data Science



# TYPES OF DATA





**Information** gathered for reference

Businesses store data to track activities and make inferences that can help them perform better





**Information** gathered for reference

**Data**

Qualitative

Quantitative



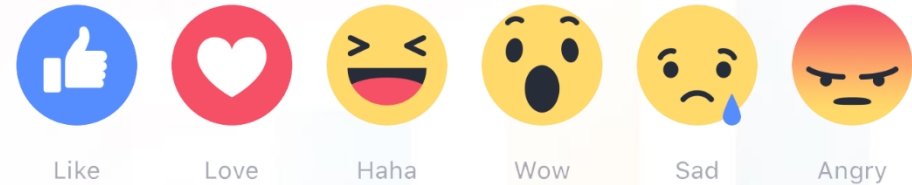
## Customer feedback



Contains **no numbers**

**Subjective** in nature – based on  
personal perceptions and opinions

## Facebook Reactions



## Numerical data

Quantifiable information that can be involved in **statistical** and **mathematical** computations

Weight

65.5 kg



Number of Objects

30 Bottles



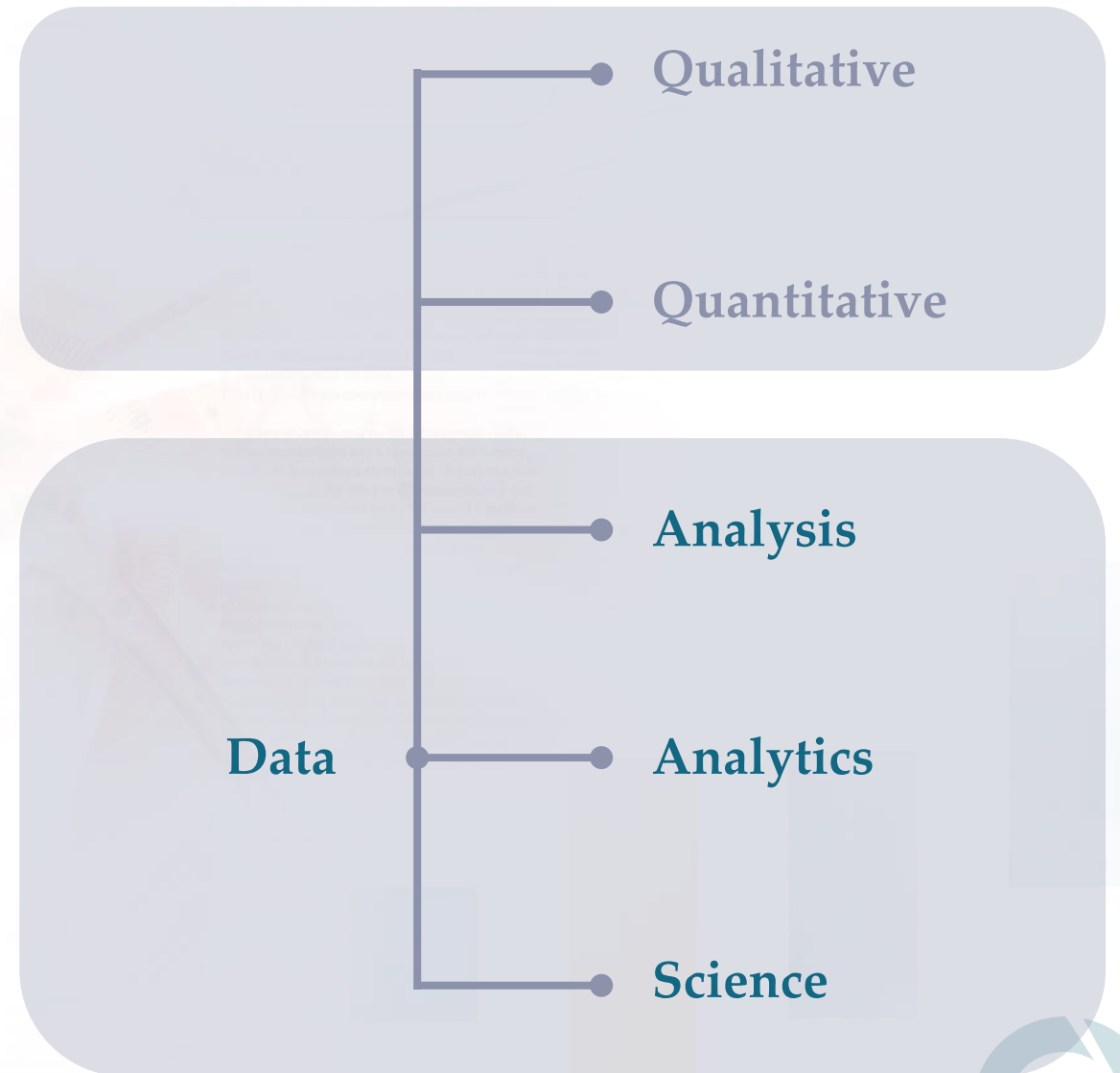
**DATA ANALYSIS**

**DATA ANALYTICS**

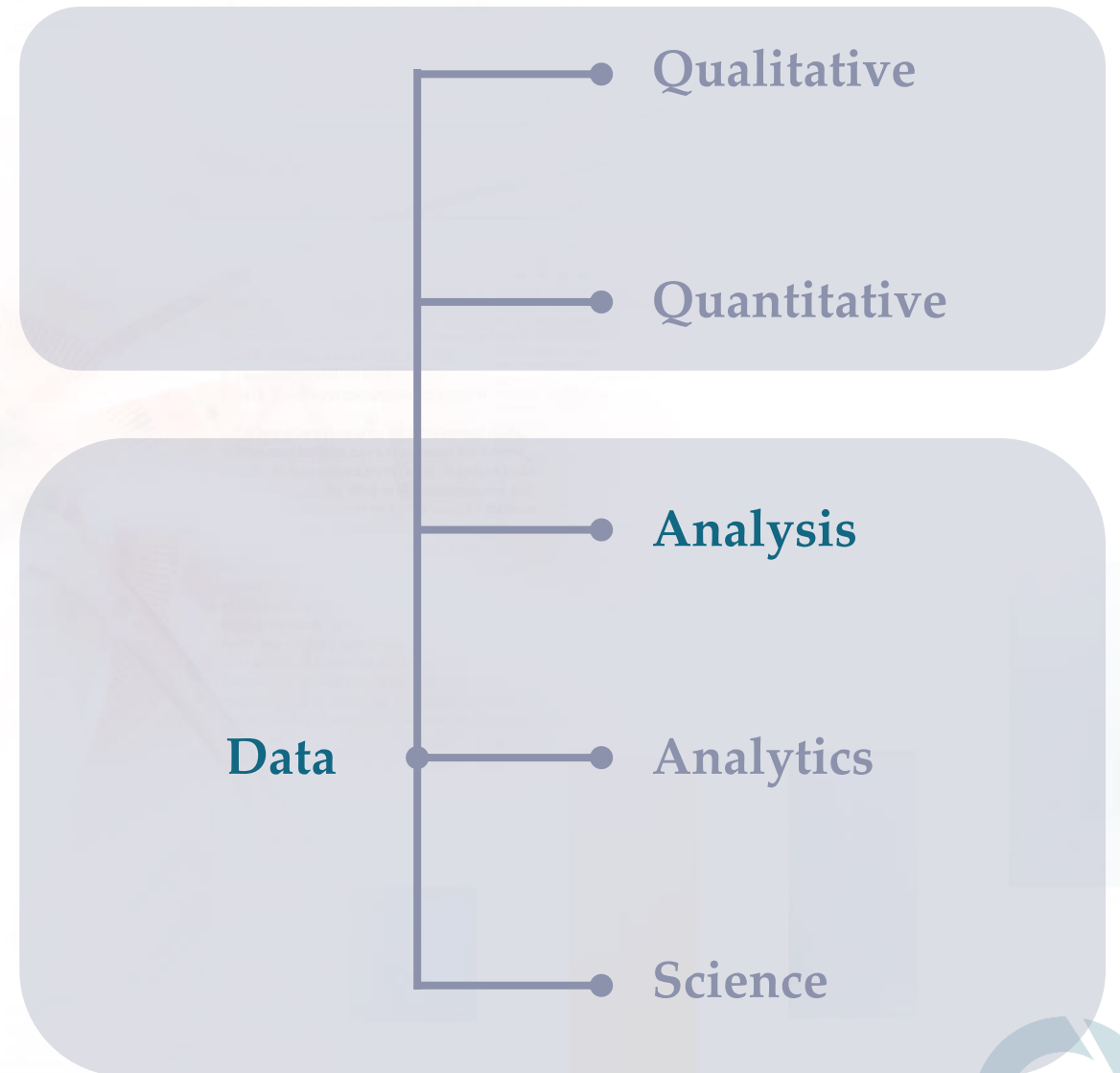
**DATA SCIENCE**



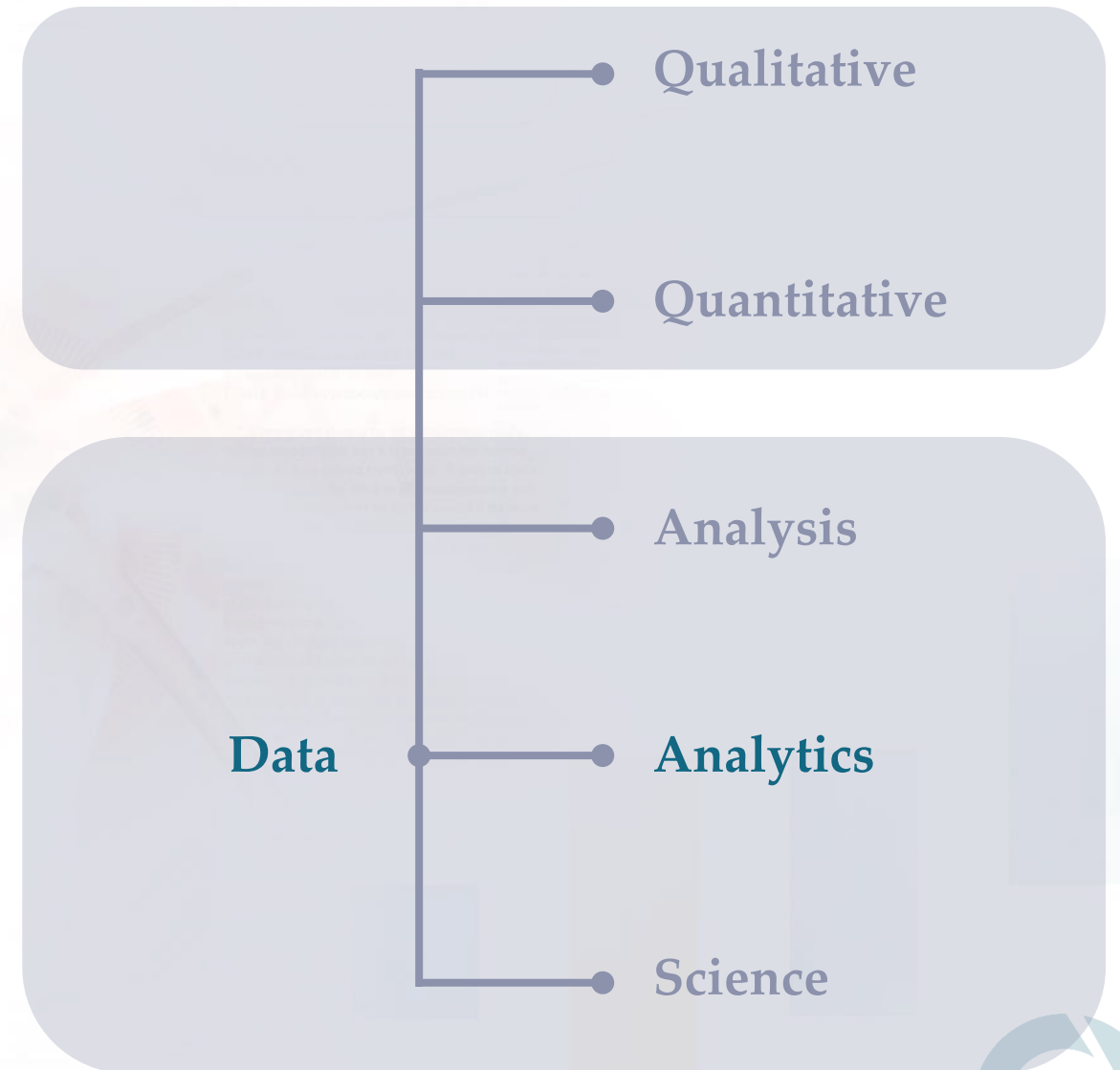
**Information** gathered for reference



The process of examining, organizing, and interpreting **past data** to identify patterns, trends, and insights



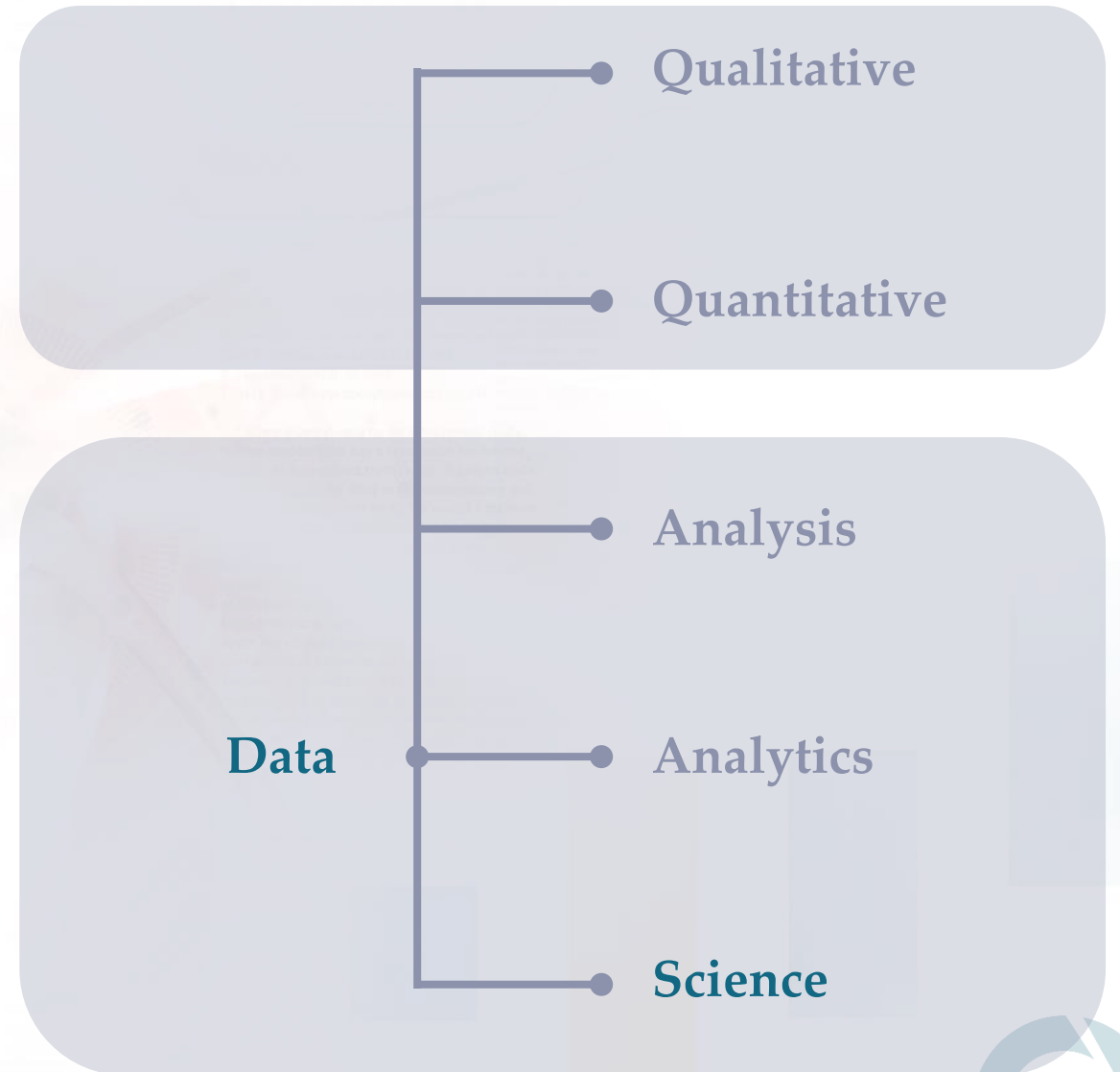
The application of statistical, computational, and predictive methods to analyze data with the goal of forecasting **future** outcomes



Relies on certain characteristics of data analytics

Often involves the implementation of **machine learning** algorithms

Sometimes advanced **statistical**  
methods and **regression** analysis





## Quantitative skills

(Mathematics and Statistics)



## Technical skills

(Programming Languages)



Numerical Computation**matplotlib**Data Visualization  
**pandas**Data Cleaning

# LABORATORY

