Data Science for Business Leaders

Presenter

Mohammed Arif, PhD
Lead Data Scientist
Big Data | Machine Learning | AI

Mohammed Arif has more than seventeen (17) years of working experience in Information Communication and Technology (ICT) industry. The highlights of his career are more than seven (7) years of holding various senior management and/or C-Level and had nine (9) years of international ICT consultancy exposure in various countries (APAC, Australia & USA), specially on Big Data, Data Engineering, Machine Learning and AI arena.

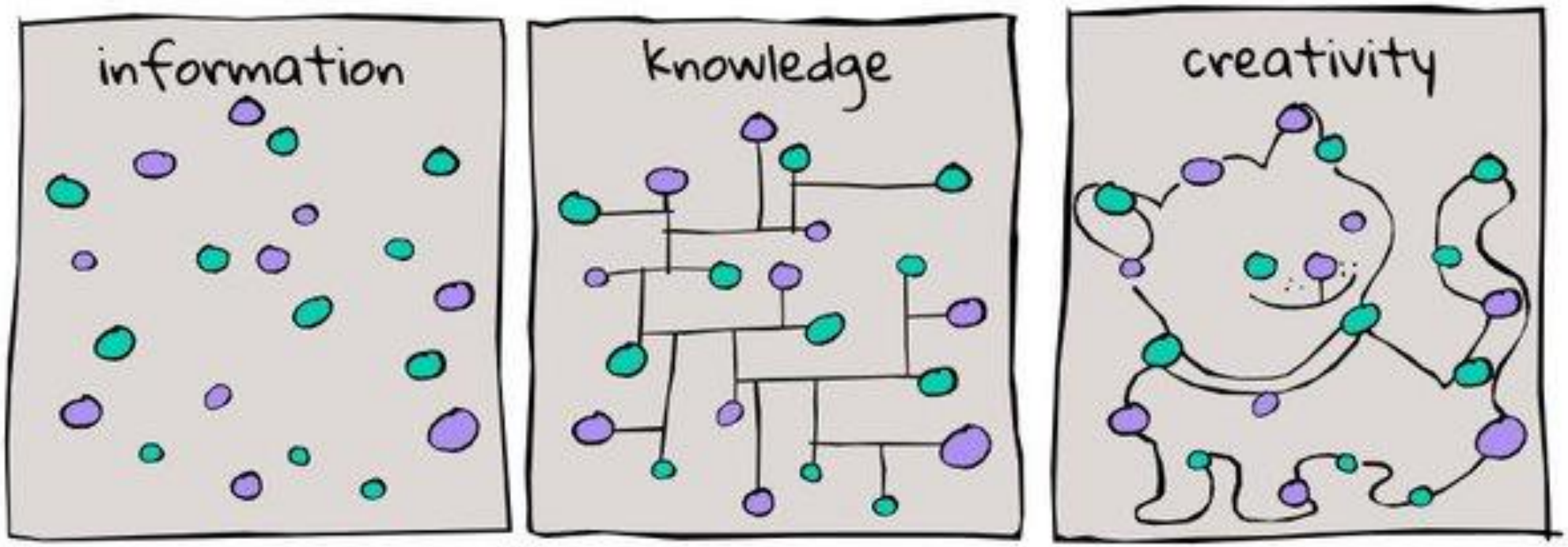
He is also Certified Trainer for Microsoft.

Data Science in Telco

Agenda

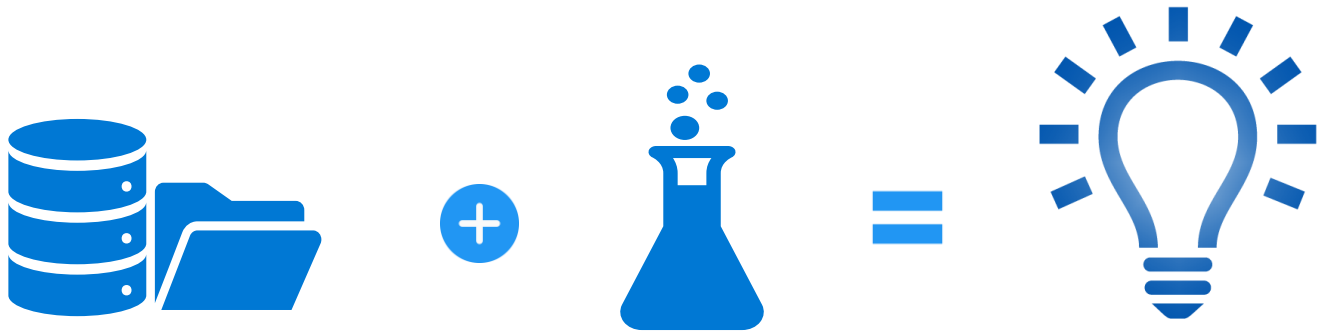
- What is Data Science?
- Deluge of Data
- Components of Data Science

Resources Links : https://arif.works/blink

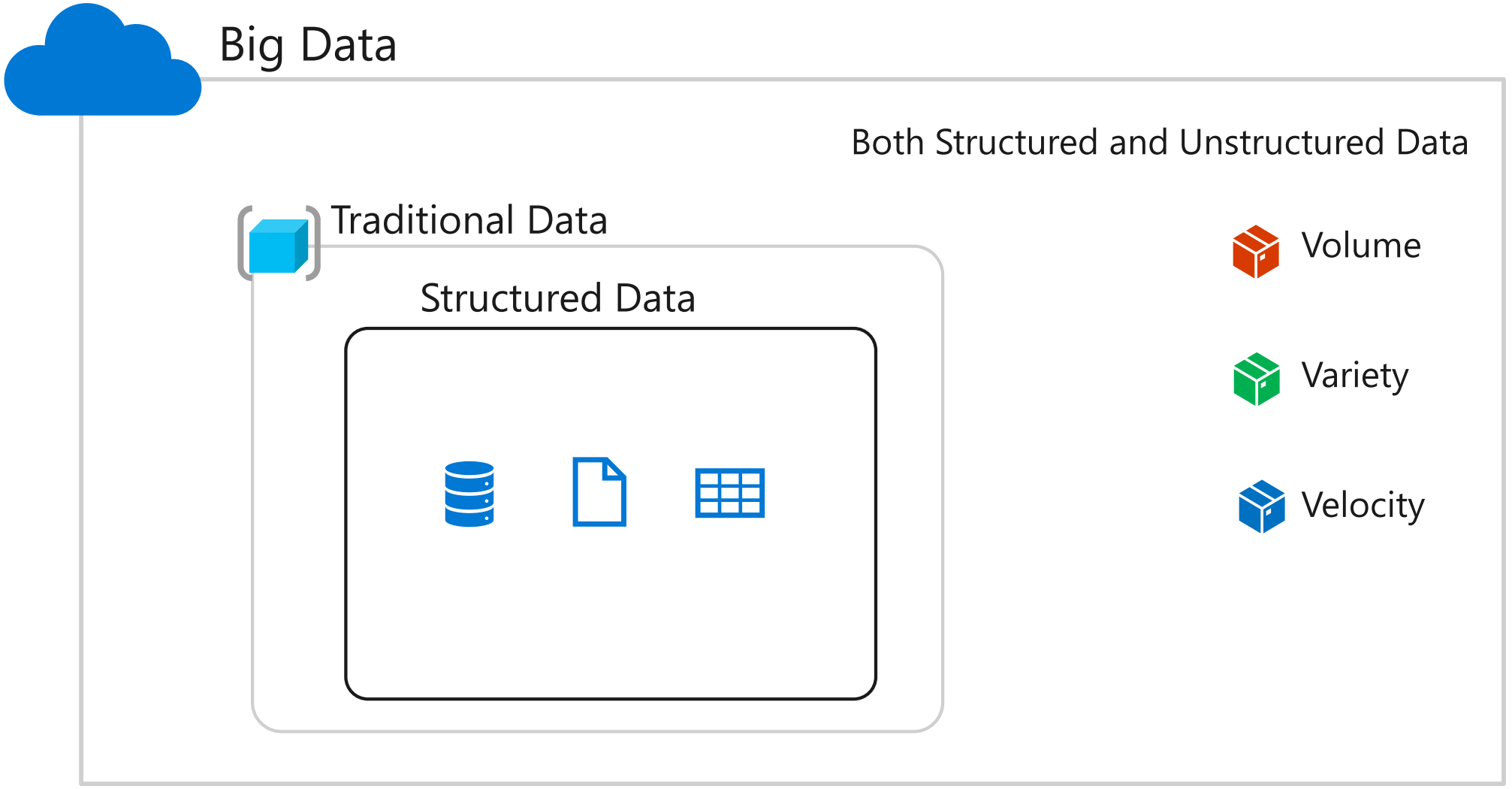


What is Data Science?

Apply Scientific Methods to extract Knowledge from Data.



Deluge of Data



Deluge of Data

Examples of structured data

Pricing data

CRM data

Dates & times

Financial transactions

Customer account data

Medical information

Deluge of Data

Examples of unstructured data

Agent notes

Surveys

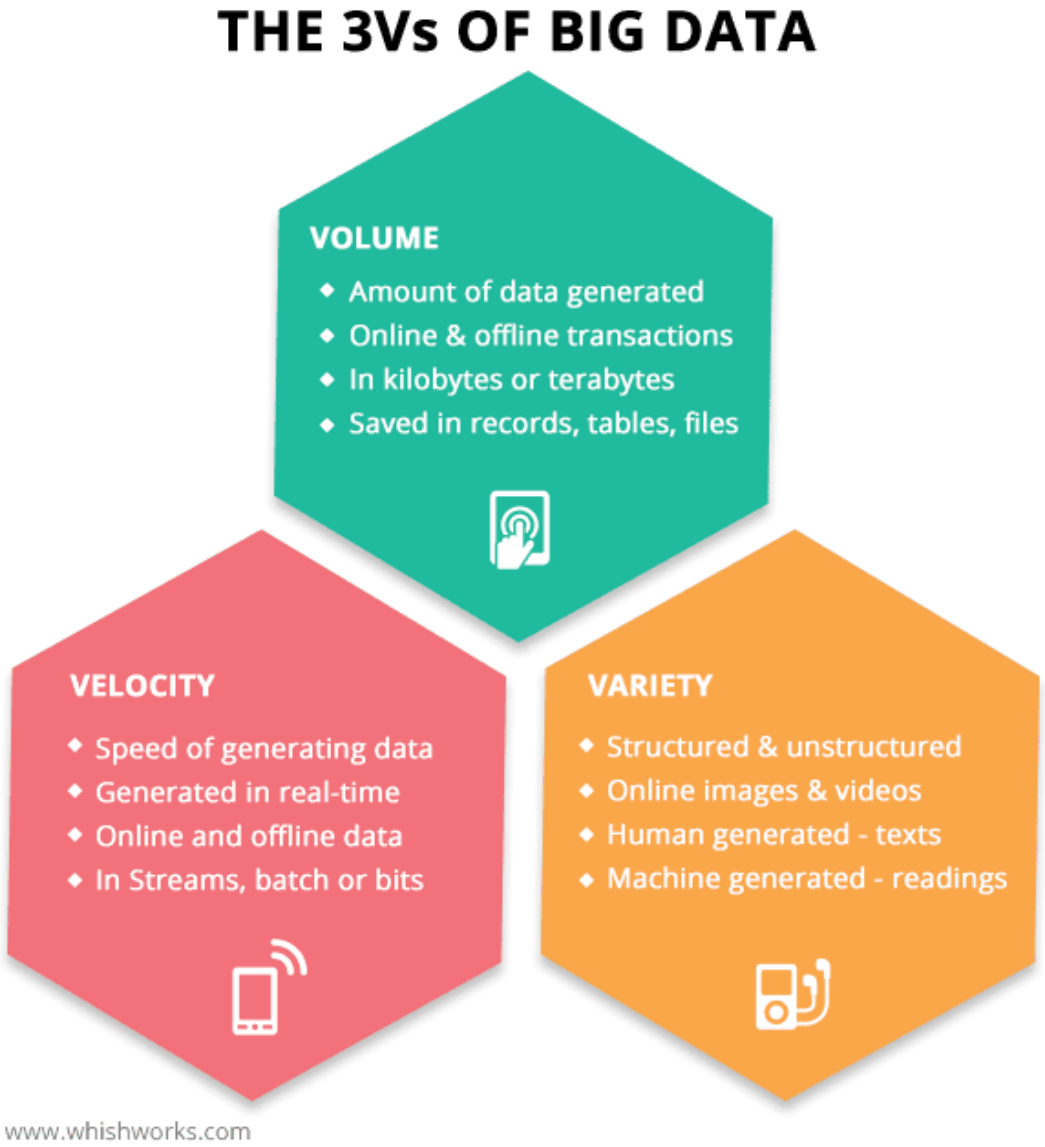
Web forms

Mail

Chats

Quality evaluations

Deluge of Data



Big Data Analytics in Telco Industry

Group Use case for Thriving VALUE

Group Name

- We want to increase/Decrease (KPI) (Value) utilizing (Key Areas)
- Using Data from (Internal / External Data source)

Group Name

- We want to increase/Decrease (KPI) (Value) utilizing (Key Areas)
- Using Data from (Internal / External Data source)

Group Name

- We want to increase/Decrease (KPI) (Value) utilizing (Key Areas)
- Using Data from (Internal / External Data source)

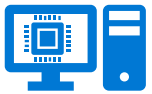
Group Name

- We want to increase/Decrease (KPI) (Value) utilizing (Key Areas)
- Using Data from (Internal / External Data source)

Scientific Methods

Statistics

Designed for inference about the relationships between variables



Machine Learning

Designed to make the most accurate predictions possible

Artificial Intelligence

Designed to mimic human behavior using ML and Deep Learning

Use case

A retail company wants to optimize its inventory management by accurately predicting customer demand for various products. The company aims to ensure that the right products are stocked in the right quantities to minimize stockouts and excess inventory.

Use case

A telecommunications company operates a vast network of cell towers, data centers, and communication infrastructure to provide services to its customers. The company wants to analyze the performance of its network to ensure optimal connectivity, identify potential issues, and improve overall customer experience.

Use case

An online fashion retailer deals with a vast inventory of clothing and accessories. The retailer wants to streamline the process of tagging and categorizing product images to enhance the user experience and improve search and filtering options on their website.

Use case

A telecommunications company operates a vast network of cell towers, data centers, and communication infrastructure to provide services to its customers. The company wants to analyze the performance of its network to ensure optimal connectivity, identify potential issues, and improve overall customer experience.

Call Drop Analysis: Analyze call drop rates and patterns to identify areas with high call drop occurrences. Statistical analysis can reveal trends in call drops based on location, time of day, and other variables.

Signal Strength Analysis: Perform statistical analysis on signal strength data to identify areas with weak or fluctuating signals. This can help prioritize network optimization efforts.

Use case

A retail company wants to optimize its inventory management by accurately predicting customer demand for various products. The company aims to ensure that the right products are stocked in the right quantities to minimize stockouts and excess inventory.

Inventory Optimization: Accurate demand forecasting ensures that the retail company maintains optimal inventory levels, reducing the costs associated with overstocking and stockouts.

Cost Savings: Efficient inventory management leads to reduced holding costs, markdowns, and wastage of perishable goods.

Use case

An online fashion retailer deals with a vast inventory of clothing and accessories. The retailer wants to streamline the process of tagging and categorizing product images to enhance the user experience and improve search and filtering options on their website.

Time Efficiency: Automating the tagging process saves significant time and resources compared to manual tagging.

Enhanced Product Discovery: Implement image similarity analysis to recommend related products based on visual similarities, helping users discover items they might be interested in. Image similarity analysis suggests relevant products, increasing the chances of cross-selling and upselling.

Let’s Play

www.kahoot.it