PRESENTATION ON BIG DATA

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SUMMARY OF TOPICS

INTRODUCTION

Big data is a collection of massive and complex data sets and data volume that include the huge quantities of data, data management capabilities, social media analytics and real-time data. Big data analytics is the process of examining large amounts of data. There exist large amounts of heterogeneous digital data. Big data is about data volume and large data set's measured in terms of terabytes or petabytes. This phenomenon is called Bigdata.

What is big data?

Big Data is a collection of data that is huge in volume, yet growing exponentially with time. It is a data with so large size and complexity that none of traditional data management tools can store it or process it efficiently. Big data is also a data but with huge size.
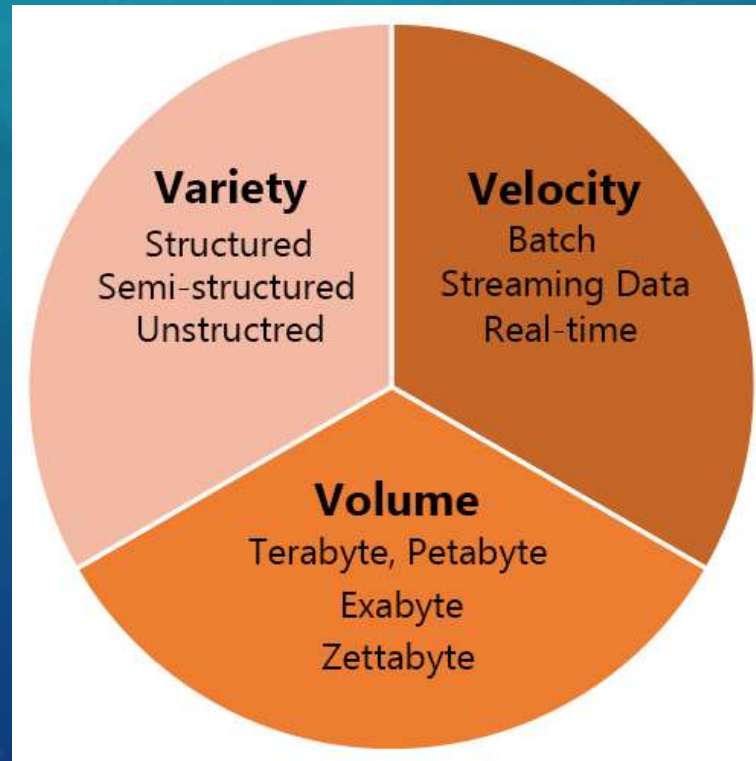
Characteristics

There are three characteristics of Big Data i.e V3's : Big data analytics can be a difficult concept to grasp onto, especially with the vast varieties and amounts of data today. To make sense of the concept, experts broken it down into 3 simple segments. These three segments are the three big V's of data: variety, velocity, and volume.

Variety

➢ **Structured :** Any data that can be stored, accessed and processed in the form of fixed format is termed as a 'structured' data.

➢ **Unstructured :** Any data with unknown form or the structure is classified as unstructured data.

➢ **Semi-structured :** Semi-structured data can contain both the forms of data.
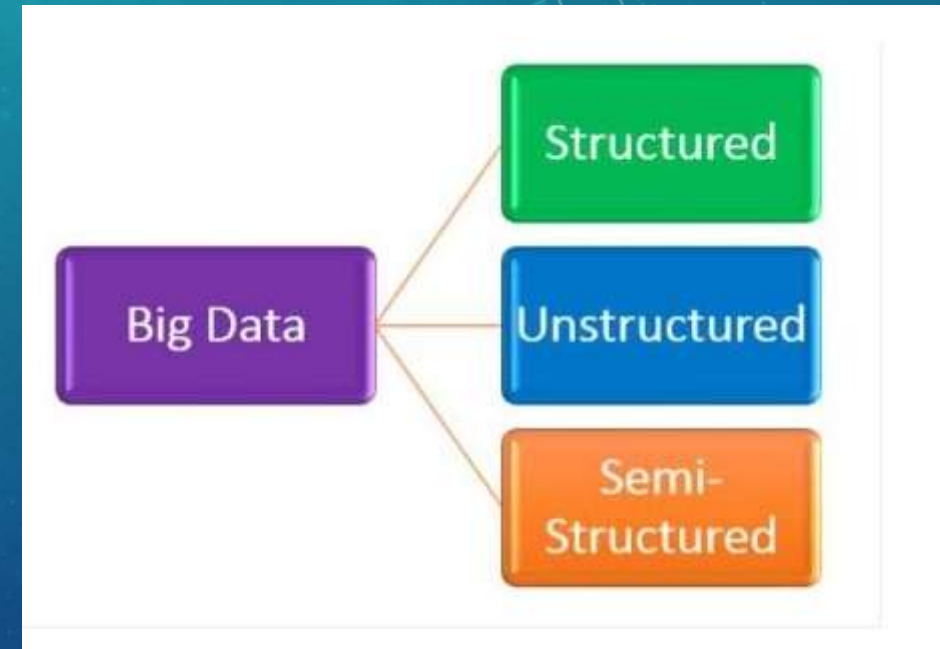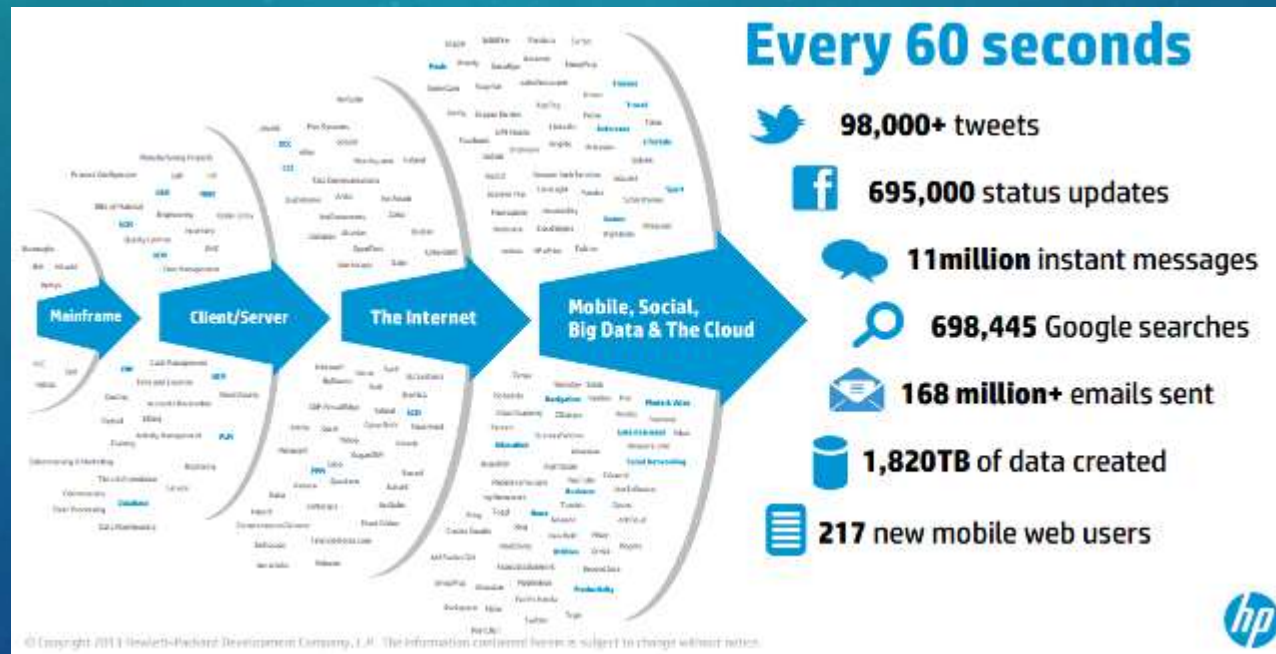
Velocity

Initially, the acceleration of big data has to lead to more opportunities. There's a lot of data at hand, and once we have access to this data, you can use it to discover new realities.

Velocity

Data in Motion

Analysis of streaming data to enable decisions within fractions of a second.

Volume

The world has a lot of data behind it, possibly at an incomprehensible amount. With over 90% of today's data being generated in the past 2 years, that estimates to 2.5 quintillion data bytes daily.
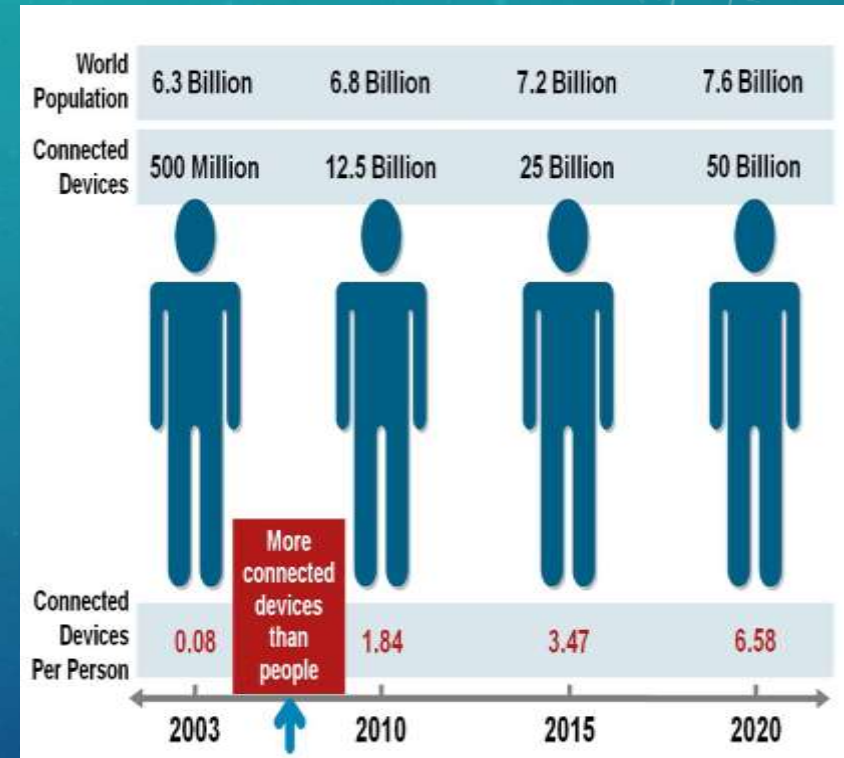
Why Big Data

World Population	6.3 Billion	6.8 Billion	7.2 Billion	7.6 Billion
Connected Devices	500 Million	12.5 Billion	25 Billion	50 Billion

❖Growth of Big Data is needed

–Increase of storage capacities

–Increase of processing power

–Availability of data(different data types)

–Every day we create 2.5 quintillion bytes of data; 90% of the data in the world today has been created in the last two years alone

Applications

Smarter Healthcare

Homeland Security

Traffic Control

Manufacturing

Multi-channel sales

Telecom

Trading Analytics

Search Quality

Risks

- Will be so overwhelmed
  - Need the right people and solve the right problems

- Costs escalate too fast
  - Isn't necessary to capture 100%

- Many sources of big data
  is privacy
  - self-regulation
  - Legal regulation

Benefits

➤Better decision making

➤Greater innovations

➤Improvement in education sector

➤Product price optimization

➤Recommendation engines

➤Life-Saving application in the healthcare industry

40% Increased Efficiency

50% Better Business Decision Making

80% Improved Customer Experience and Engagement

90% Achieved Financial Savings

Future of Big Data

➢**Increasing demand for Data Analytics.**
➢**Increasing enterprise adoption of Big Data**
➢**Flexible career options**
➢**Promises exponential salary growth**
➢**The Volume of Data Generated will Continue to Increase**

Refrences

❖ https://www.digitalvidya.com/blog/big-data-future
❖ https://magnimindacademy.com/blog/advantages-of-big-data
❖ https://www.upgrad.com/blog/major-challenges-of-big-data
❖ https://www.selecthub.com/big-data-analytics/types-of-big-data-analytics
❖ https://www.geeksforgeeks.org/applications-of-big-data