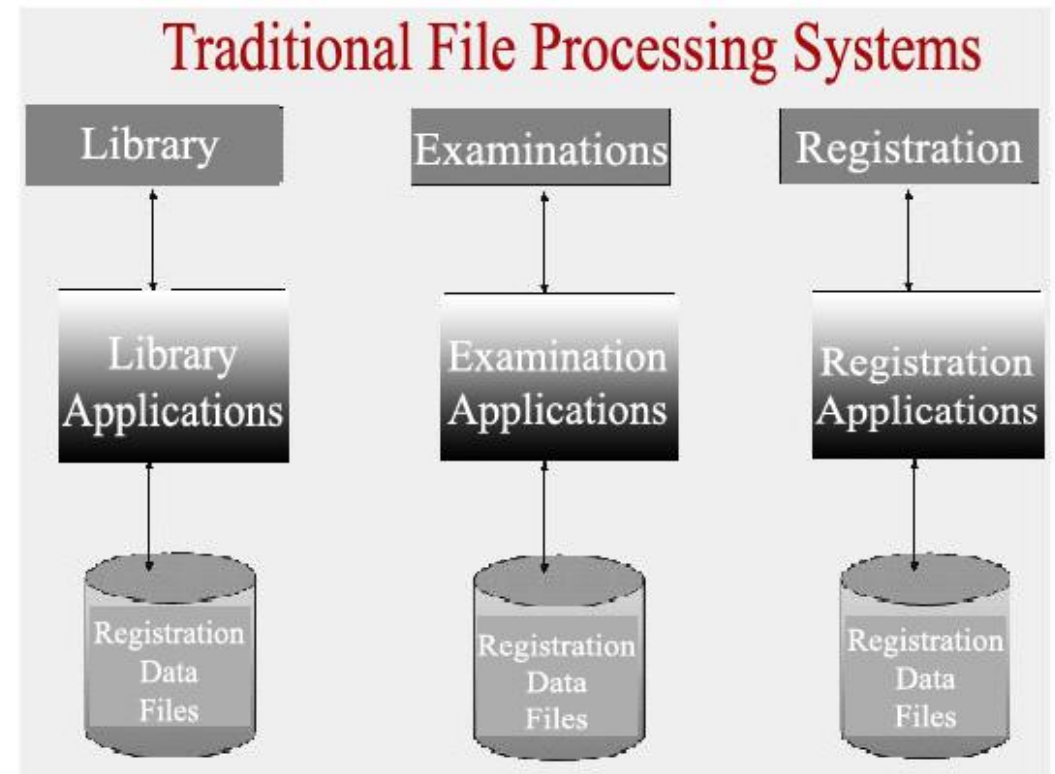
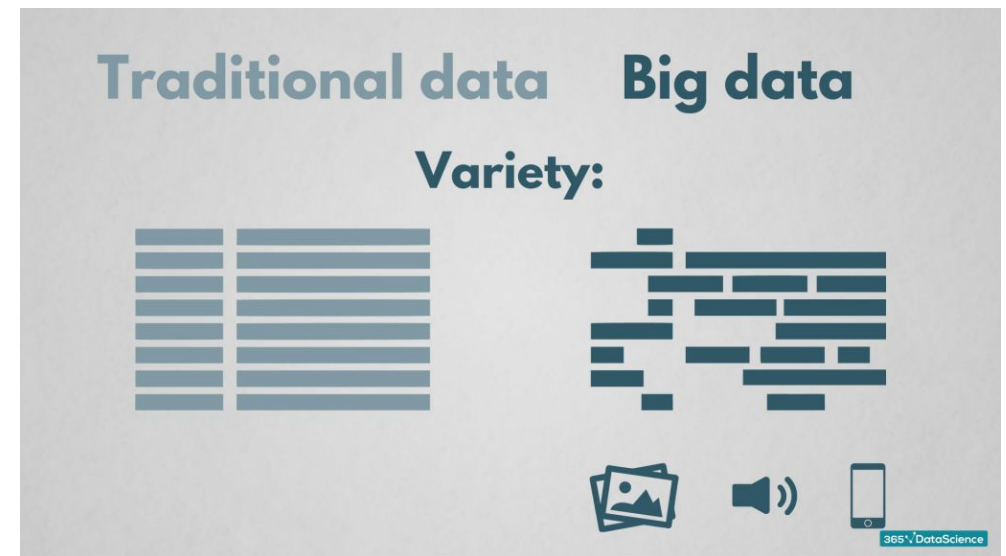


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TRADITIONAL DATA VS BIG DATA

What is traditional data?

- Traditional data is structured data and is present in manageable volume
- A database management system is used to store and maintain this type of data in a fixed format or fields in a file
- Example: financial data, organizational data, web transaction data etc.



What is big data?

- Data that is huge in volume, yet growing exponentially with time.
- So large in size and complexity that none of the traditional data management tools can store or process it efficiently.
- Example: Stock exchanges, jet engines, social media

Sensor data from a cross-country flight



How much data does Facebook have on one user?

Data downloaded by Rory Cellan-Jones since 2007

	2,500+ Contacts + phone numbers
	50 Advertisers who have his contact info
	1,500 Messenger conversations
	10,500 Total friendships
	240 Sessions updated
	70 IP addresses
	160 Installed apps
	140 Videos
	250+ Photos, inc meta-data



Source: Rory Cellan-Jones's Facebook account

BBC

Characteristics of Traditional Data

Traditional data → Structured data

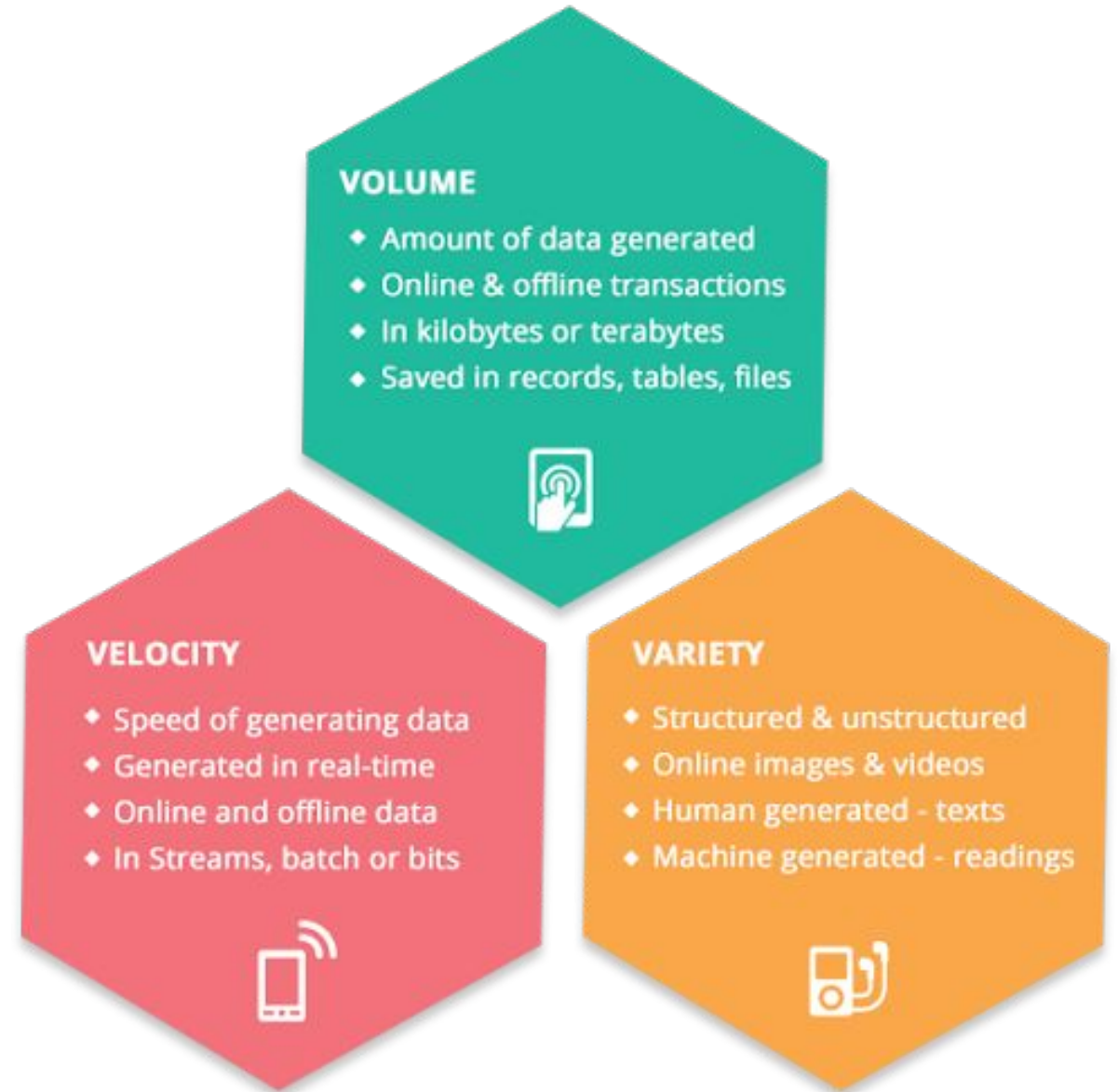
- Stored in form of tables
- SQL for managing and accessing the data
- Small sized data
- Easy to manage
- Even normal functions can manipulate data



Characteristics of Big Data

- Volume
- Variety
- Velocity

THE 3Vs OF BIG DATA



Understanding the real life examples of a dbms system



Railway reservation system, health care providers, clubs, libraries, beauty salons, travel agencies, phone companies, government agencies like FBI, INS, IRS, and NASA — they all use databases.

These databases can be very different in their nature and usually have to be specifically designed to cater to some special customer needs.

Understanding the real life example of a big-data system

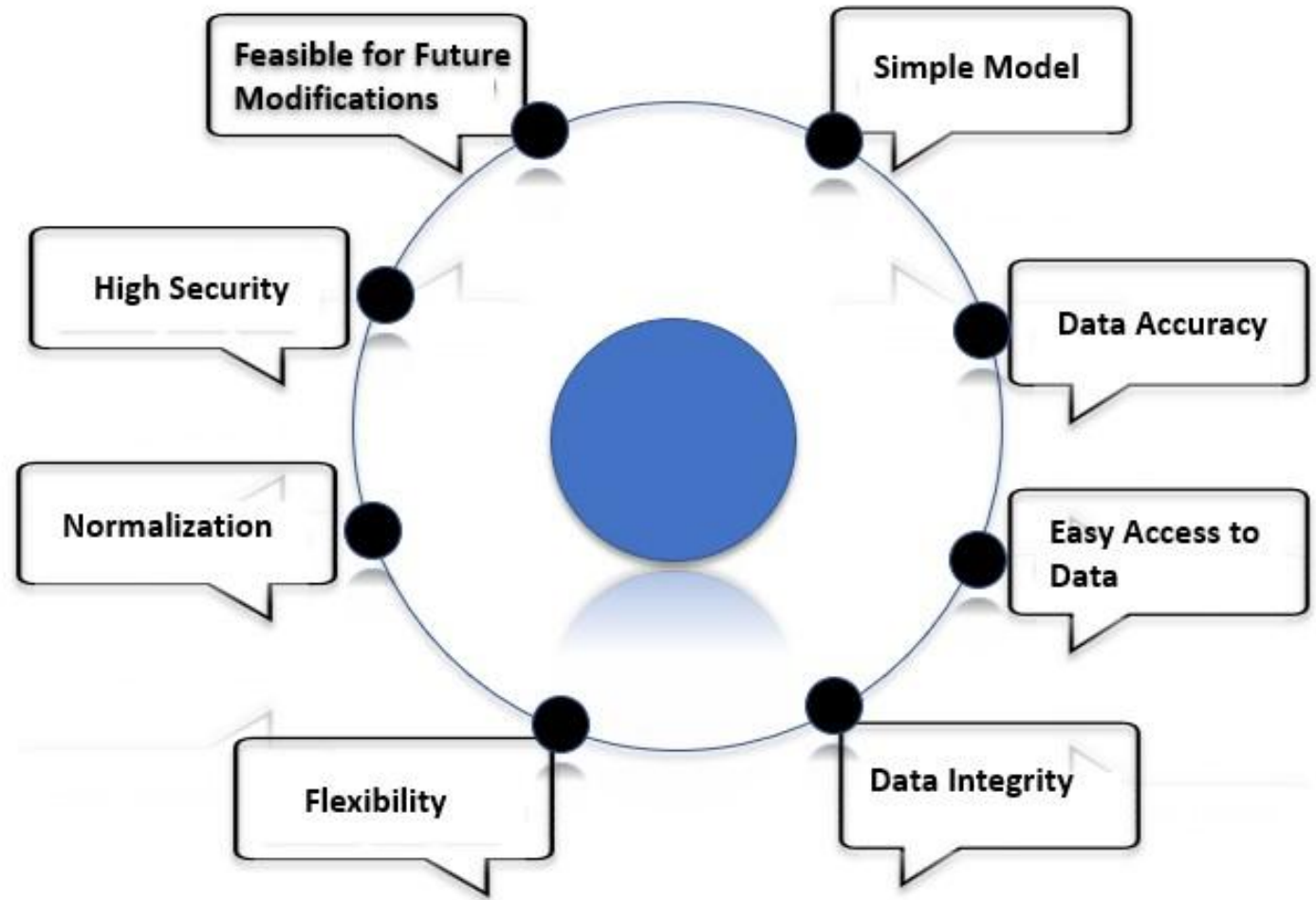
Netflix-

The most loved American entertainment company specializing in online on-demand streaming video for its customers.



Advantages of traditional data

- Better Data security
- Faster Data access
- Simplicity of the model
- Better Data integration
- Minimized data inconsistency



Advantages of big data?

- Businesses can utilize outside intelligence while taking decisions
- Improved customer service
- Better operational efficiency
- It helps in improving science and research.
- Every second additions are made. One platform carry unlimited information.



Disadvantages of traditional data.

- High Cost
- Huge Size
- Database failure
- Complexity for non-technical users



Disadvantages of big data.

- Unstructured Data
- Violates principles of privacy.
- Is not useful in short run.
- Results during analysis are misleading sometimes.
- Difficult to handle



Summary

Factor	Traditional Data	Big Data
Definition	Traditional data is structured, relational data	Large amount of exponentially increasing data
Volume range	Gigabytes to Terabytes	Petabytes to Zettabytes
Storage Tools	Oracle database, Tableau, AWS	Hadoop, Hive, HBase, NoSQL
Advantages	Faster and accurate access to data, Improved data sharing and data integration	Improves operational efficiency, reduces risks and costs, helps in understanding customers
Disadvantages	Difficulty in handling huge sized data, High cost	Invades privacy, difficult to handle, may be misleading
Examples	Banking, education systems, railway management systems	Social Media, Stock Exchanges, Jet Engines

Q & A

Thank You!