

The 5Vs of Big Data:

1. Volume:

This refers to the massive amount of data collected and stored.

With the advancement of technology, we have greater ability  
ability

to collect data from multiple sources, such as:

- a. Smart devices,
- b. social media, and others.

2- Velocity:

Refers to the speed at which data is generated and processed in the Internet age.

Data is generated very quickly, such as:

- a. Electronic payment transactions,
- b. Social media updates,
- c. Data flow from connected devices.

3- Variety:

- Refers to the variety of data types collected, including:

- a- Structured data (such as databases)
- b- Unstructured data (such as text, images, and videos).

4- Veracity:

Refers to the reliability and quality of data. Sometimes,  
data may be inaccurate or contain errors,  
making it difficult to extract accurate information from it.

## 5- Value:

Refers to the benefit that can be extracted from the data. It is necessary to extract and analyze data in a way that achieves actual value for the organization or individuals.

## Types of Big Data:

### 1- Structured Data:

Data that is organized and arranged in tables with rows and columns, similar to traditional databases.

#### Examples of structured data:

- 1- Customer data,
- 2- Financial data,
- 3- Transaction records.

### 2- Unstructured Data:

Data that does not come in an organized form, such as tables or databases.

This type of data is difficult to analyze using traditional tools.

#### Unstructured data sources:

- 1- Text,
- 2- Images,
- 3- Videos,
- 4- Social media posts.

#### Examples of unstructured data:

- A Facebook post containing text, images, and videos.

### 3- Semi Structured Data:

This is a combination of structured and unstructured data.

Email messages are a good example because they include unstructured data in the message body,