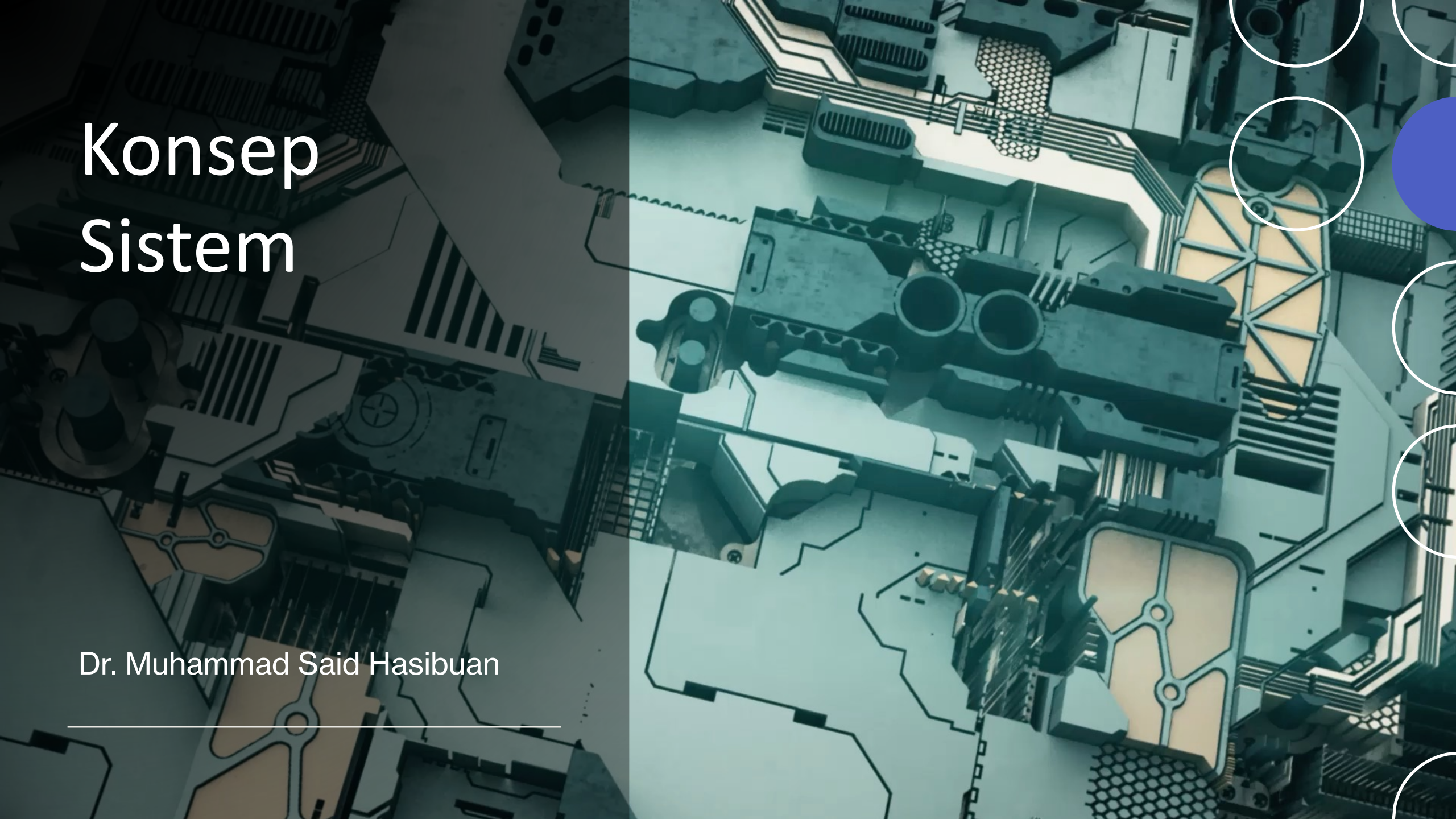


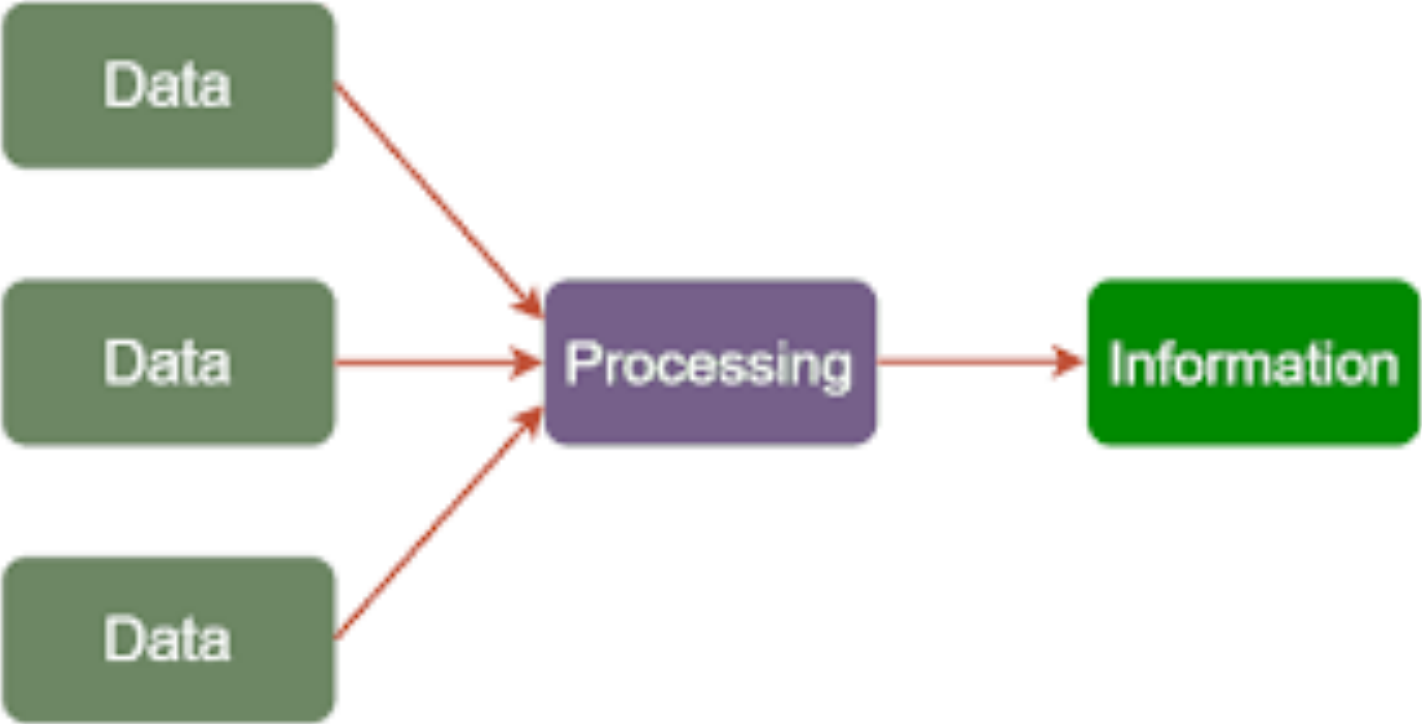
# Konsep Sistem

Dr. Muhammad Said Hasibuan

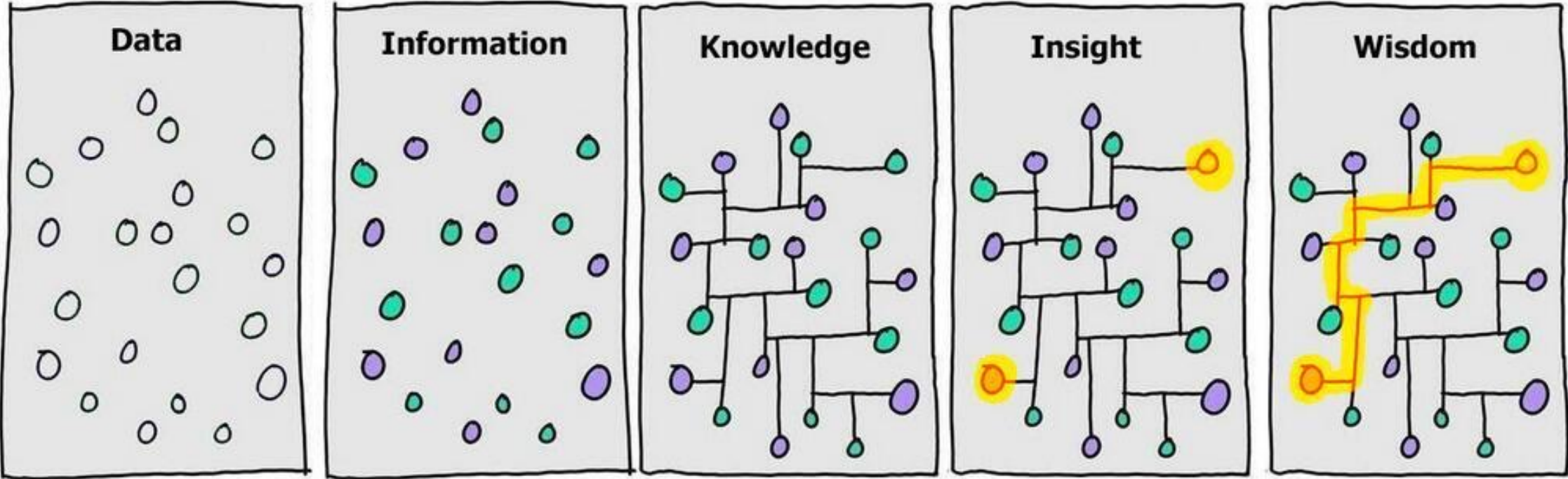
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# Data to Informasi

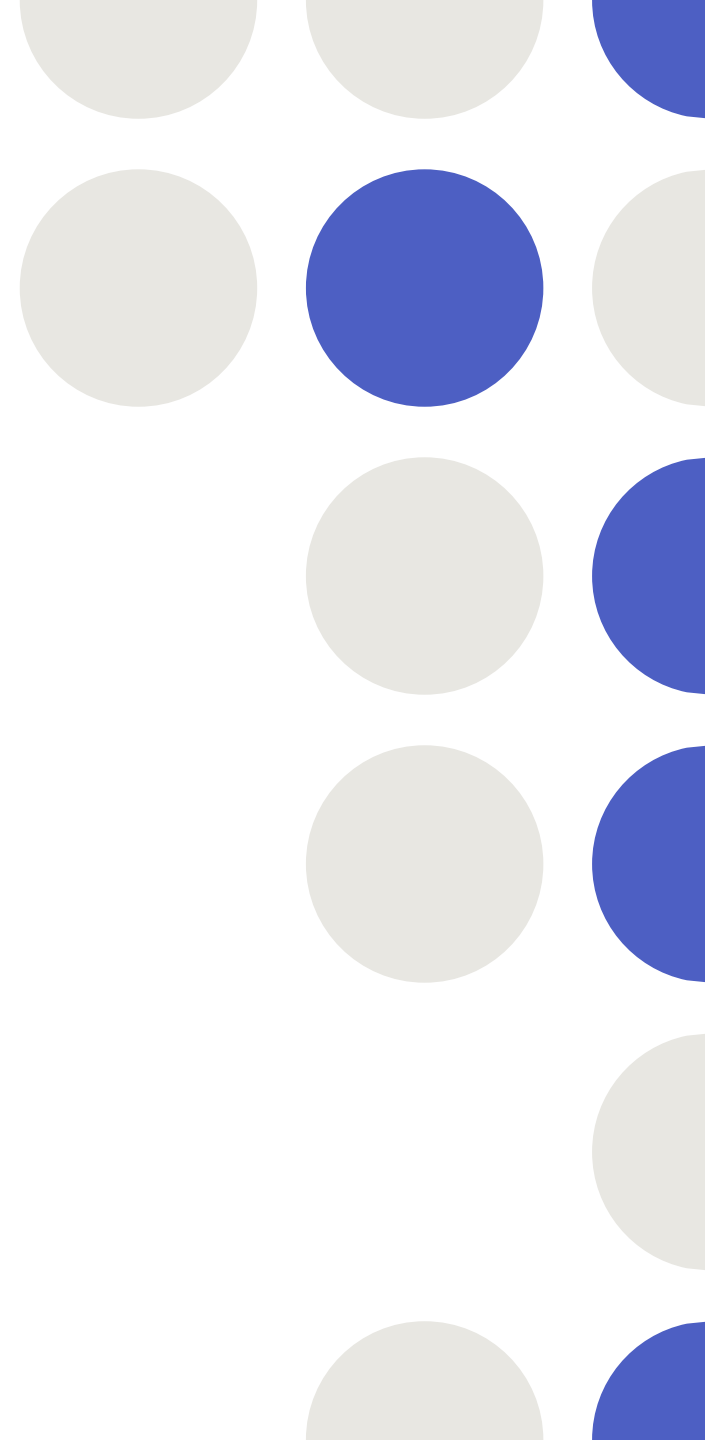


# Data to wisdom



# System

- a set of connected things or devices that operate together



# Data

Raw



# Information

Processed



# Knowledge

Actionable

Authoritative Capacity



Past Experience

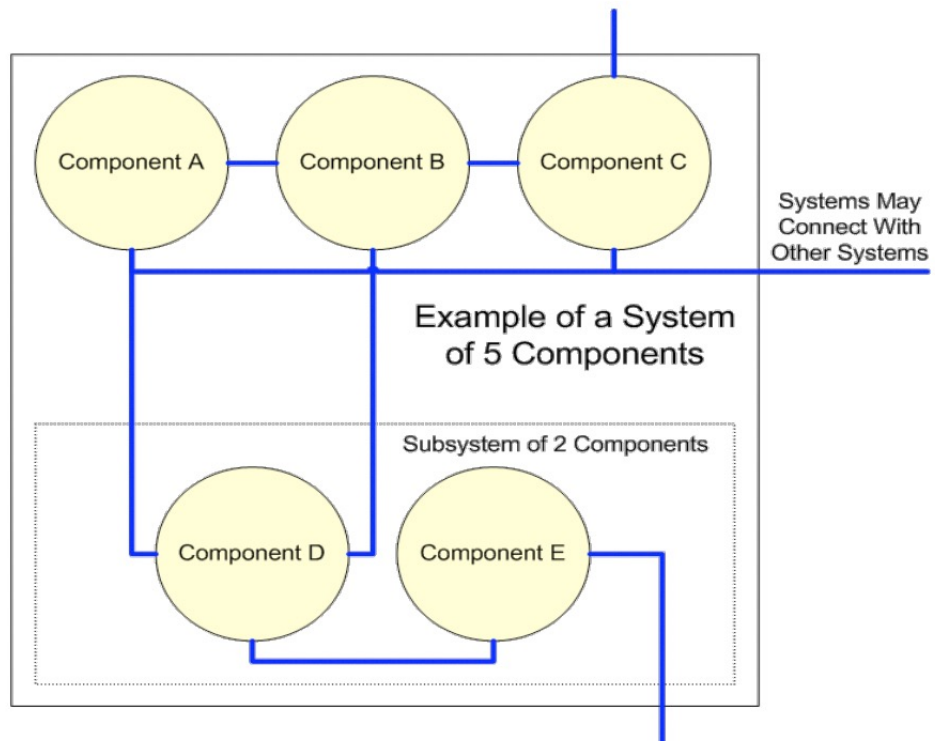
Decision

Making

Adaptive

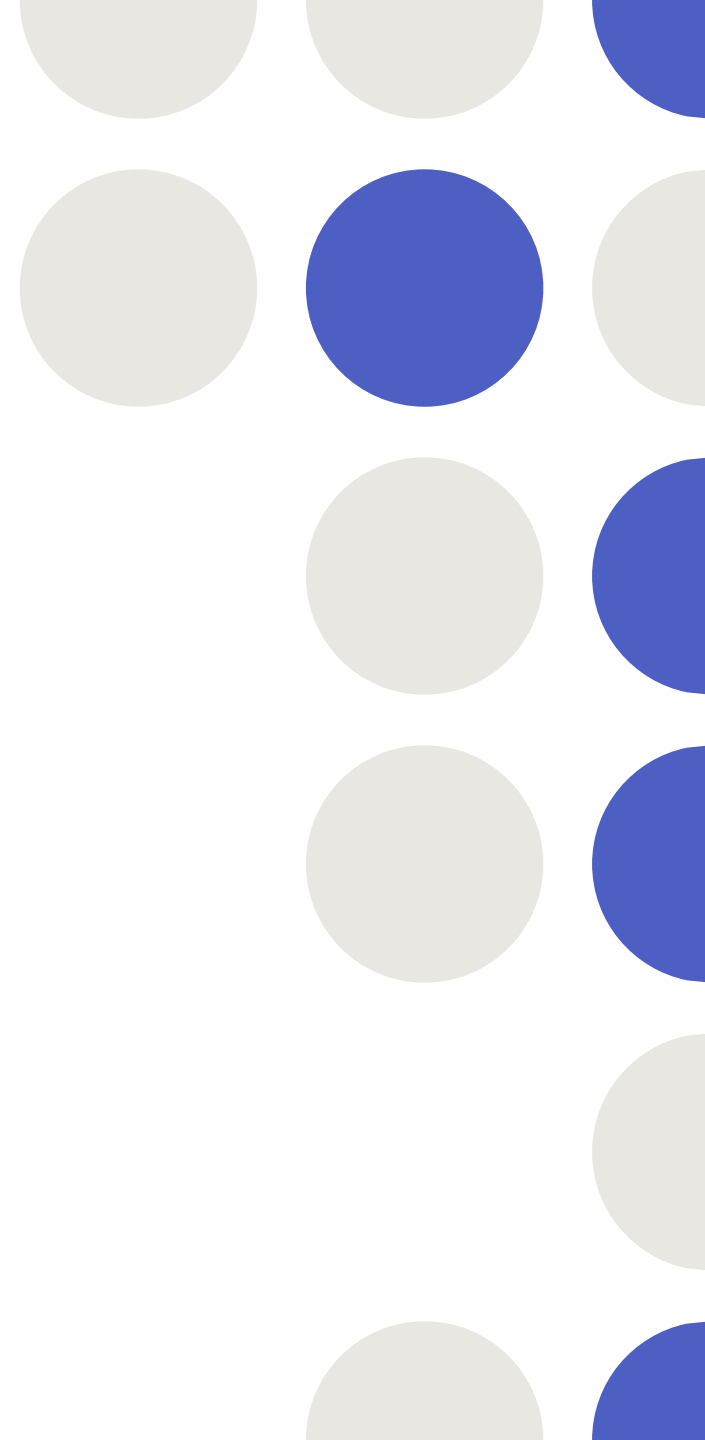


# Sample System



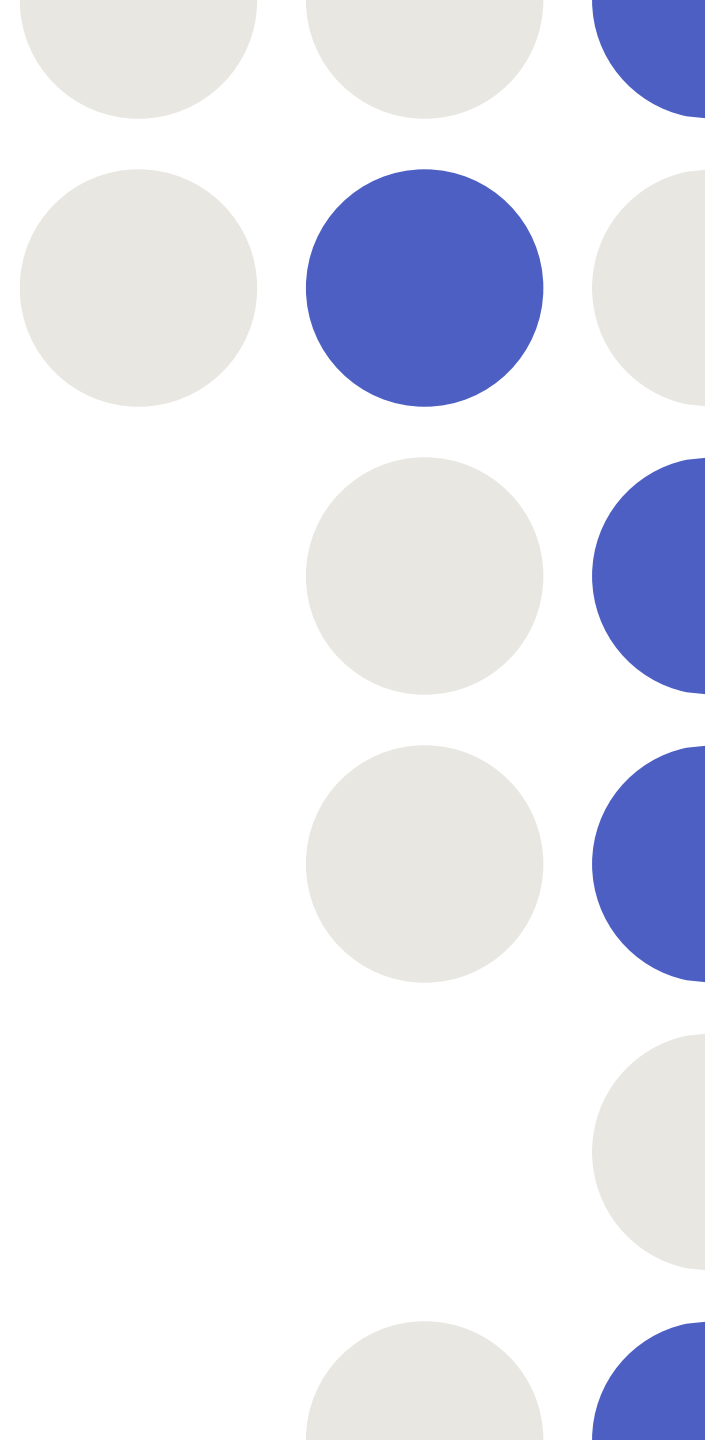
# Innovation

- Innovation is the process of “making improvements by introducing something new” to a system.
  - Innovation is an important topic in the study of economics, business, technology, sociology, and engineering. Since innovations are a major driver of the economy, the factors that lead to innovation are also critical to government policymakers. I
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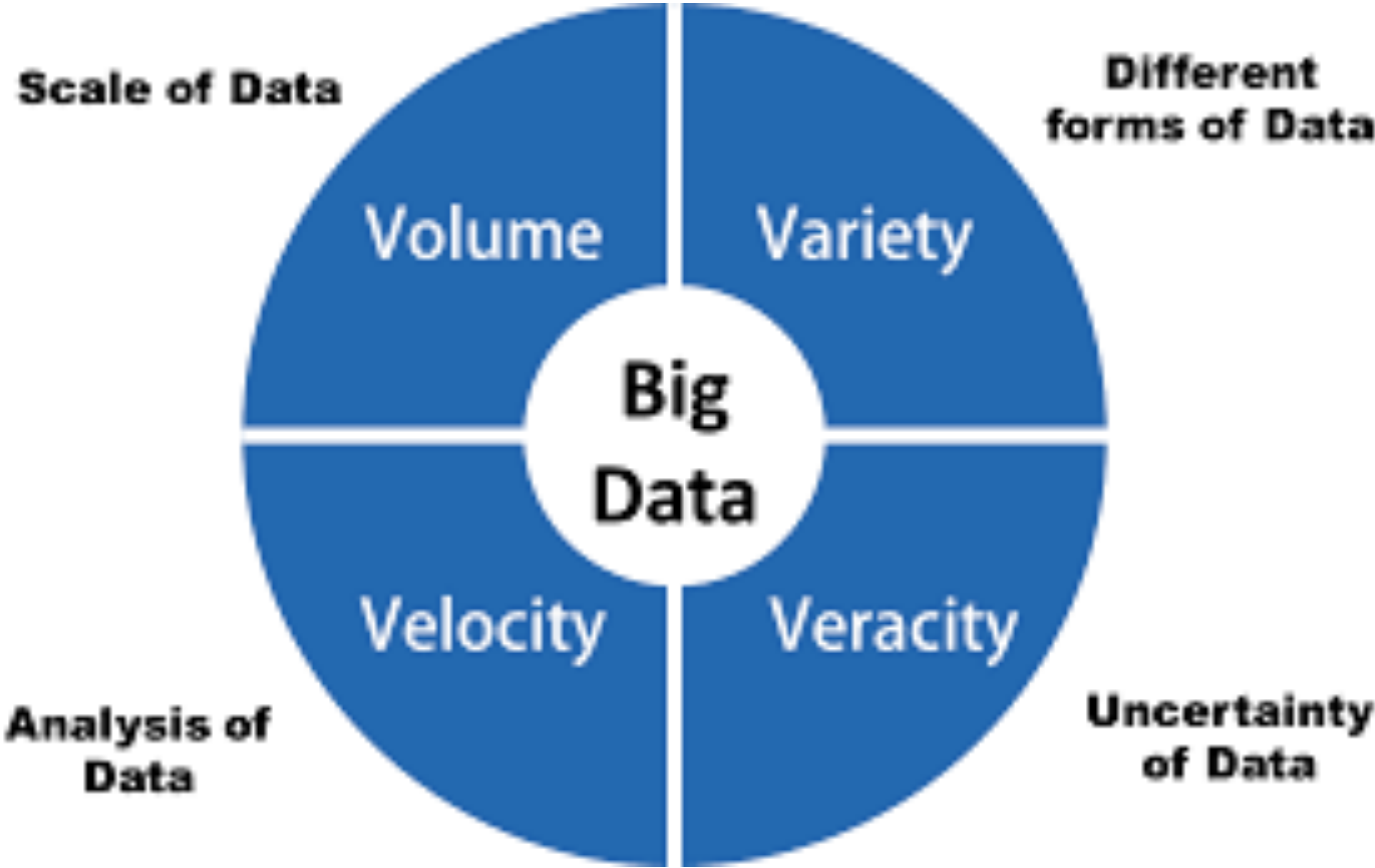


# Innovation

- While innovation can occur as individuals and groups wrestle with new problems, innovation can also be reactionary and occur as a response to unplanned changes.
- The ancient philosopher Heraclitus once said: “there is nothing permanent except change



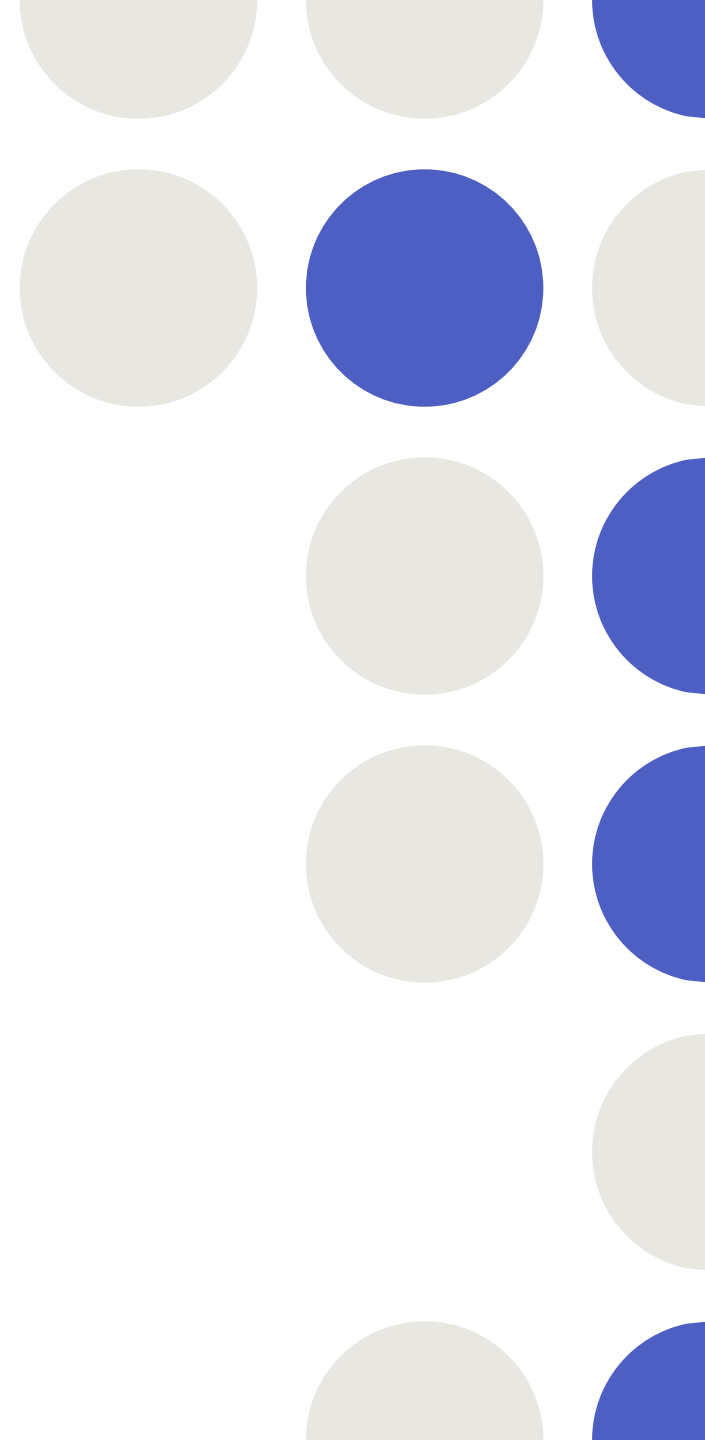
# Big data



# 1. Volume

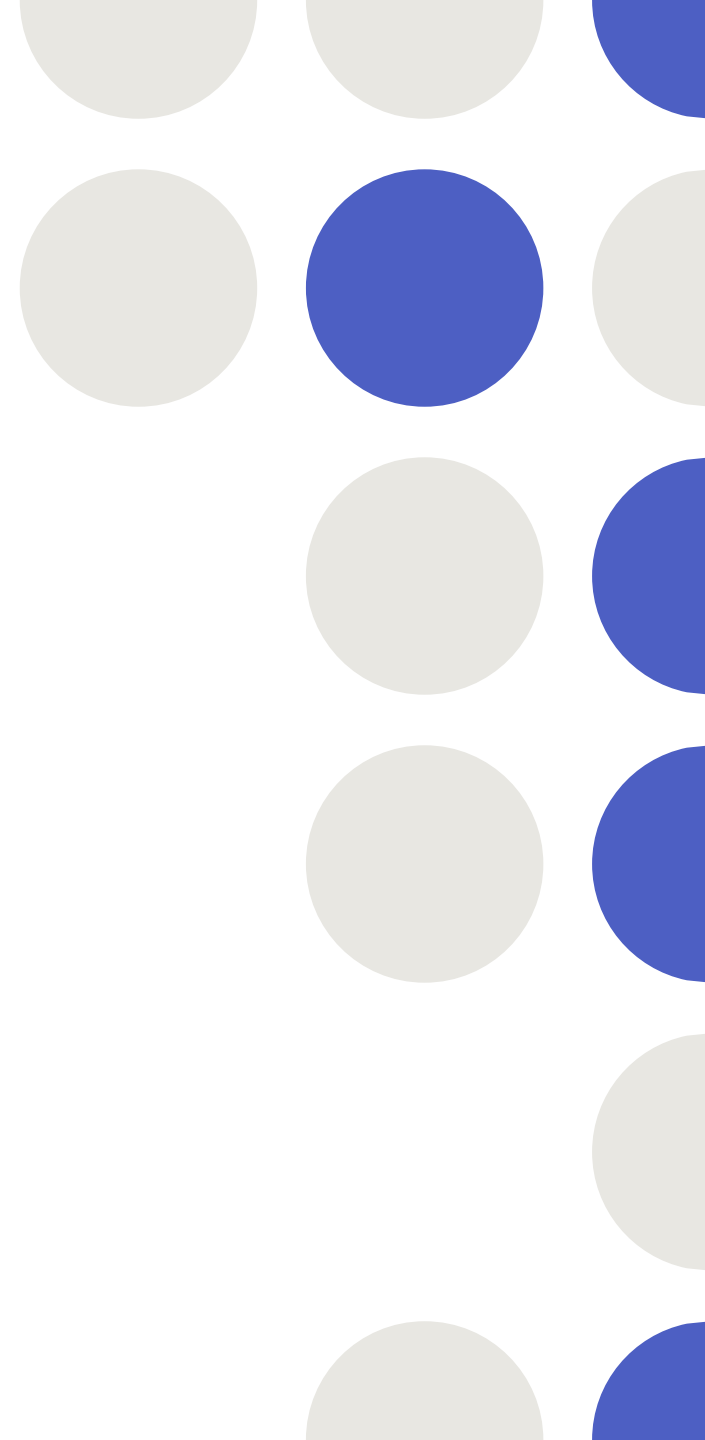
Volume, yang pertama dari 5 V Big Data, mengacu pada jumlah data yang ada. Volume seperti basis Big Data, karena merupakan ukuran awal dan jumlah data yang dikumpulkan. Jika volume data cukup besar, maka dapat dikatakan big data. Apa yang dianggap sebagai Big Data adalah relatif, dan akan berubah tergantung pada daya komputasi yang tersedia di pasar.

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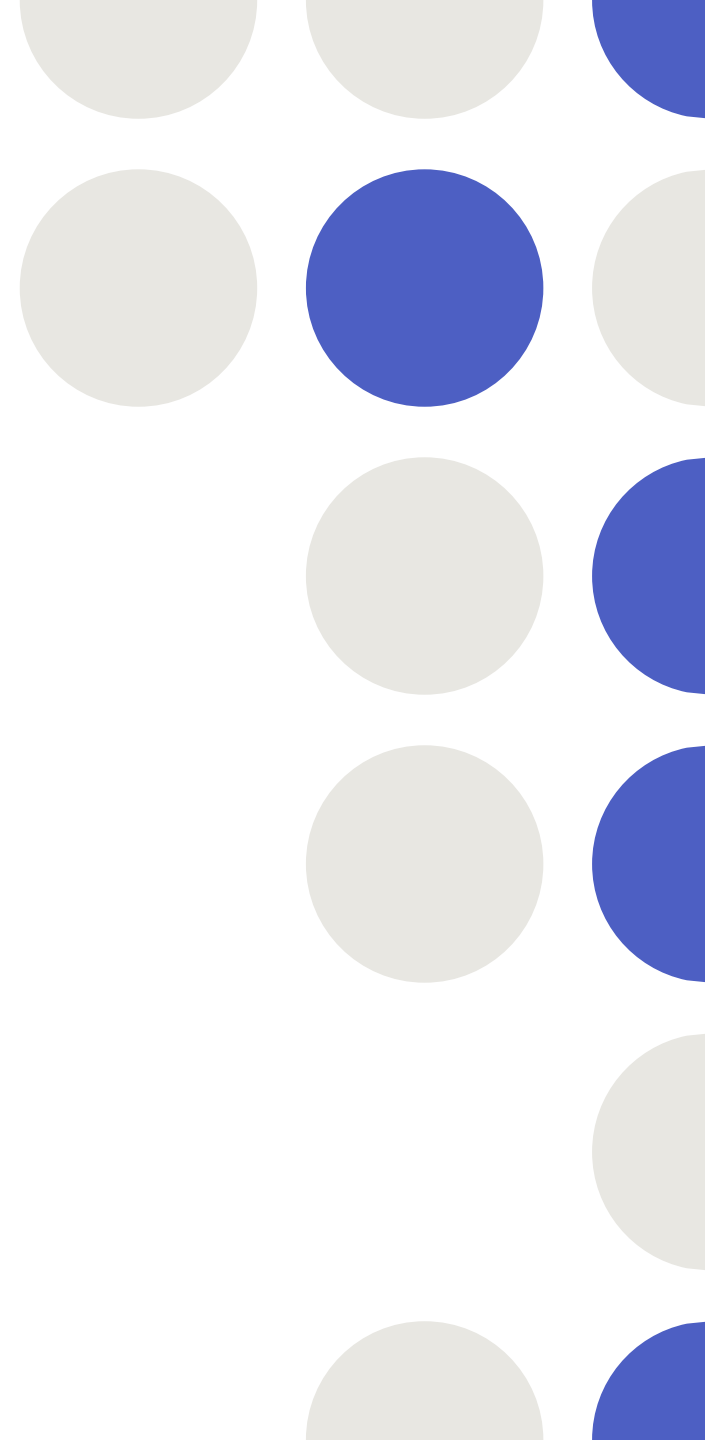
## 2. Velocity

- Berikutnya dari 5 V Big Data adalah kecepatan. Ini mengacu pada seberapa cepat data dihasilkan dan seberapa cepat data tersebut bergerak.
- 



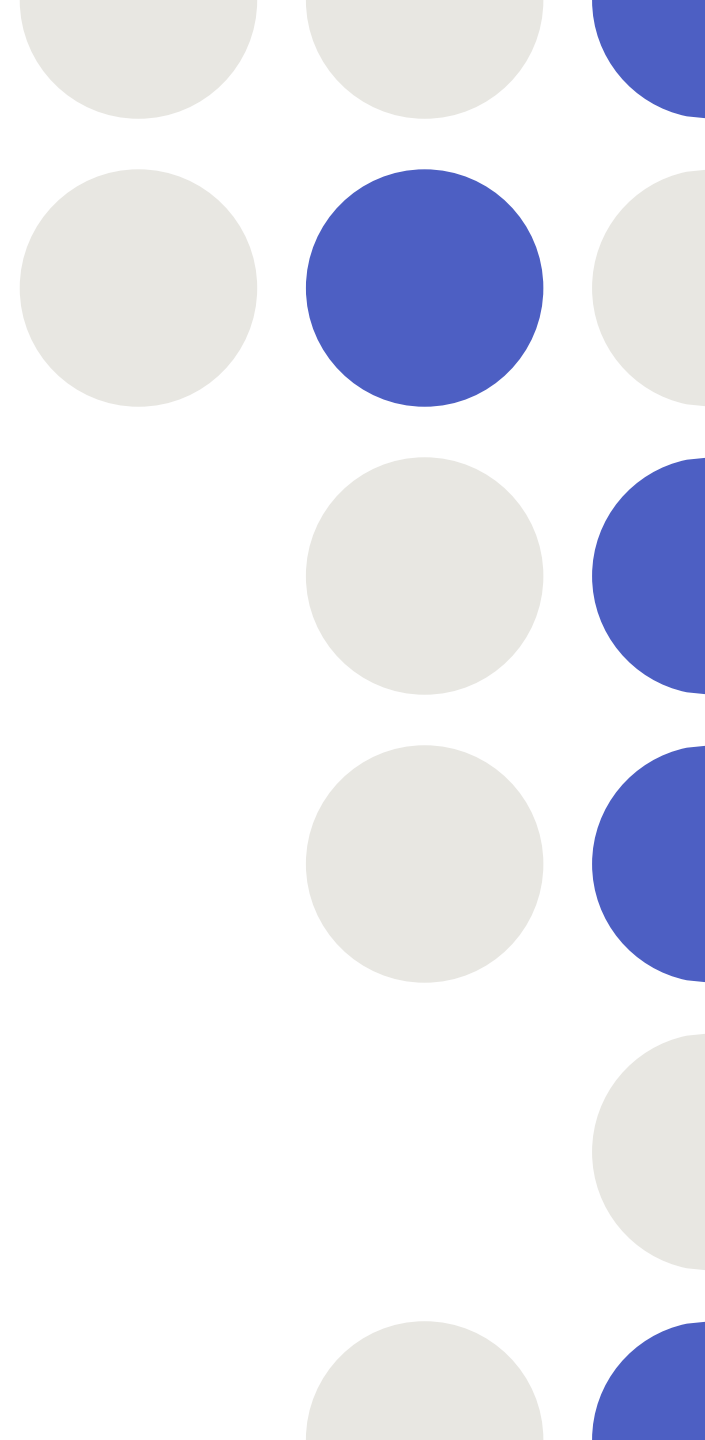
# 3. Variety

- V berikutnya dalam lima 5 V Big Data adalah variasi. Varietas mengacu pada keragaman tipe data.



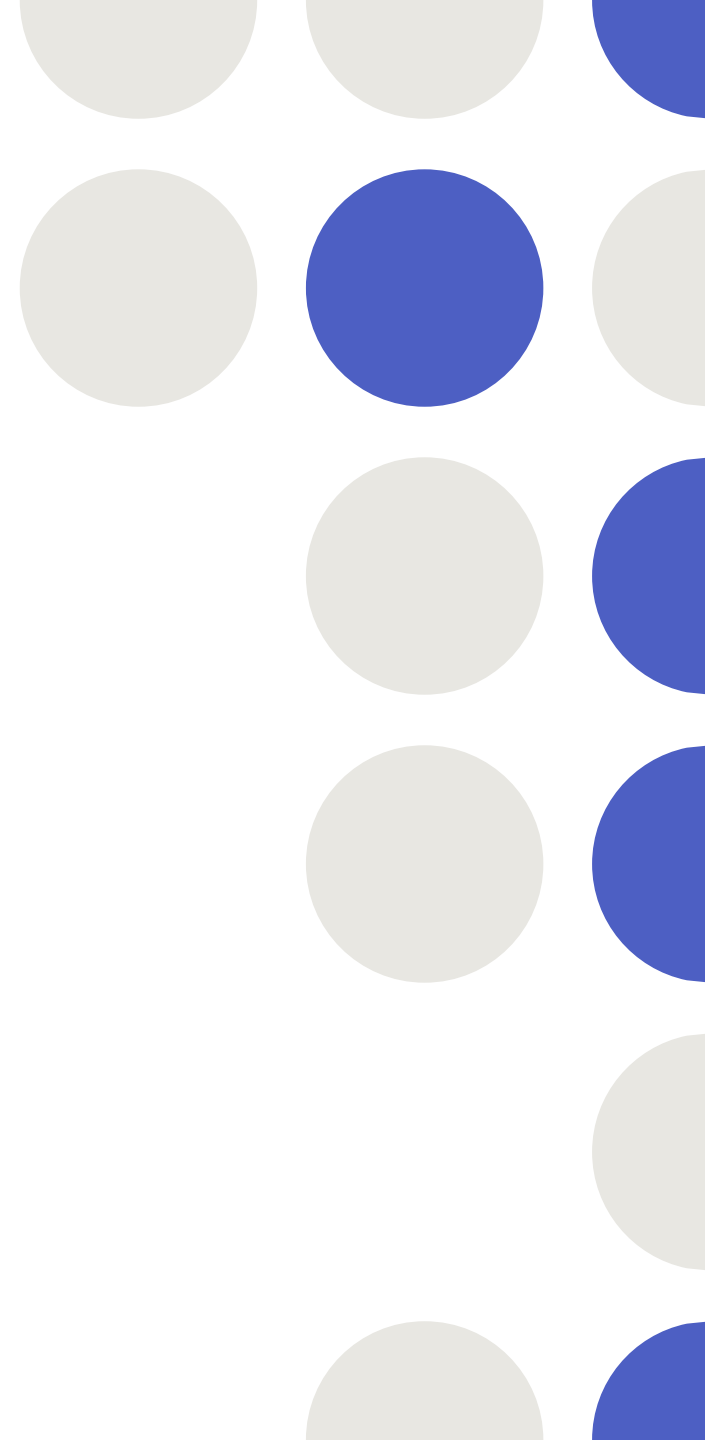
## 4. Veracity

- Veracity adalah V keempat dalam 5 V Big Data. Ini mengacu pada kualitas dan keakuratan data. Data yang dikumpulkan dapat memiliki bagian yang hilang, mungkin tidak akurat, atau mungkin tidak dapat memberikan wawasan yang nyata dan berharga. Veracity, secara keseluruhan, mengacu pada tingkat kepercayaan yang ada dalam data yang dikumpulkan.
- 



## 5. Value

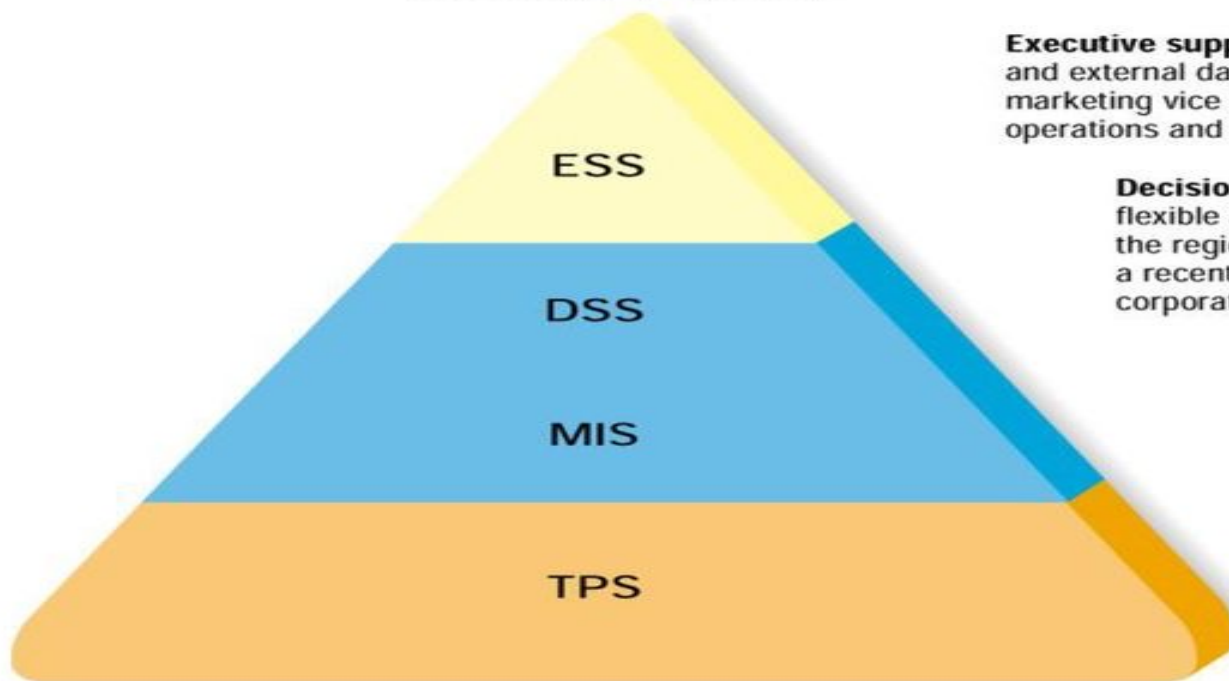
- V terakhir dalam 5 V Big Data adalah Value. Ini mengacu pada nilai yang dapat diberikan oleh Big Data, dan ini terkait langsung dengan apa yang dapat dilakukan organisasi dengan data yang dikumpulkan tersebut
- 





# Computer-Based Information Systems

## Information Systems



**Executive support systems (ESS)** use internal data from MIS and external data to support top-level managers. At HealthWise, the marketing vice president uses his ESS to view current marketing operations and to develop long-term marketing strategies.

**Decision support systems (DSS)** use data from TPS and flexible analytical tools to support middle managers. At HealthWise, the regional sales managers use the DSS to evaluate the impact of a recent national promotion campaign on regional sales and corporate profit.

**Management information systems (MIS)** use the TPS to support middle-level managers. At HealthWise, regional sales managers use their MIS reports to track weekly divisional sales and to compare actual sales to established sales goals.

**Transaction processing systems (TPS)** handle day-to-day transactions to support front-line managers. At HealthWise, production managers use their TPS to record and to monitor inventory levels and production line output.