CONCEPT OF FACTS, DATA, AND INFORMATION
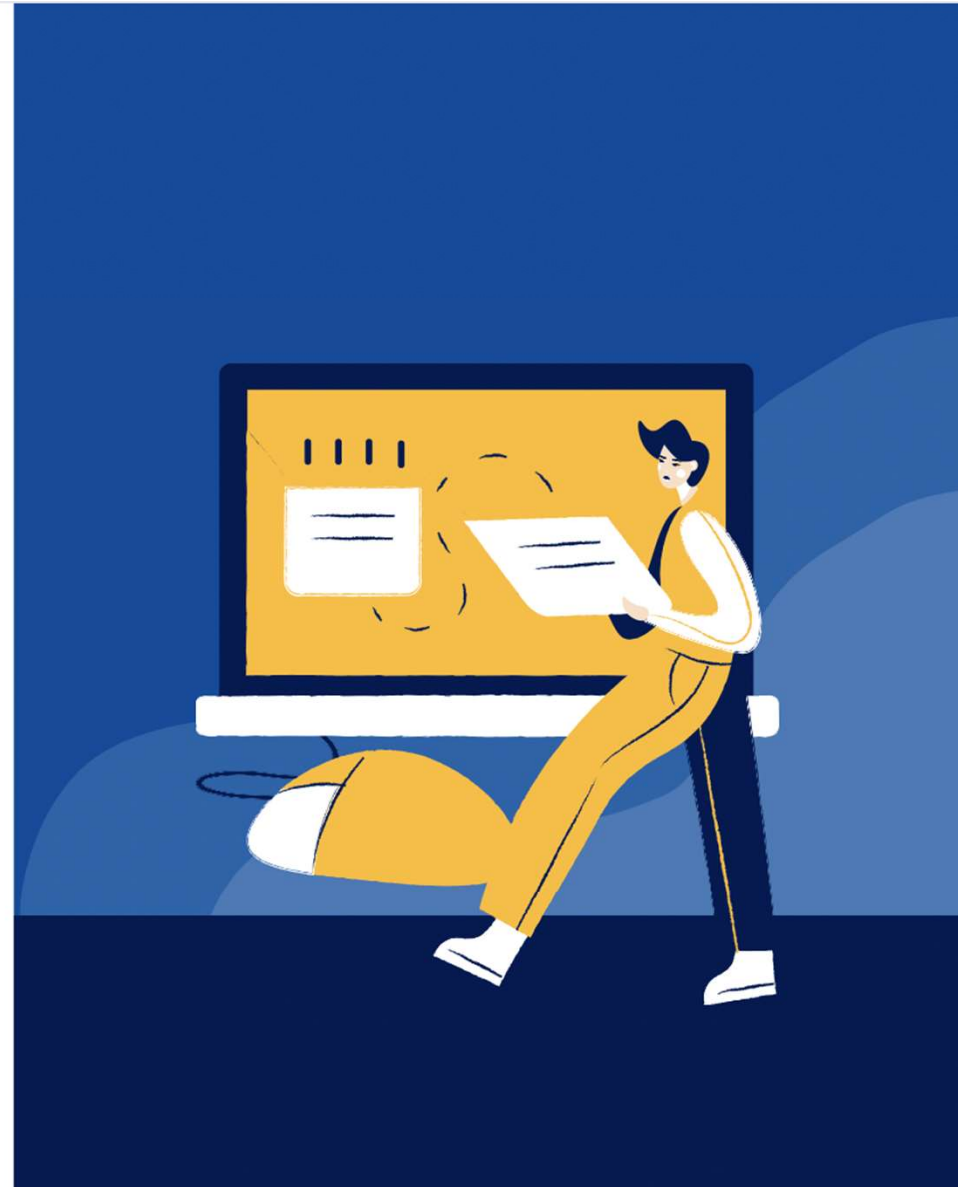
SISTEM INFORMASI MANAJEMEN

JURUSAN TEKNOLOGI INFORMASI

Konsep Dasar Fakta

- Fact comes from the Latin, namely factus.

- Facts are everything that is caught by the human senses or data on real conditions that are proven and have become a reality (really exists or happened).

- Facts are often associated with:

  - Honest observations recognized by widely recognized observers

  - Habits that are observed repeatedly

  - Something that is considered the opposite of being made

  - Something real, which is used as material for further interpretation

  - Information on a specific subject

  - Something that is believed to be the cause or meaning

Basic Concept Theory

- Theory is the main means of expressing systematic relationships in social or natural phenomena that are used for scrutiny. Theory is an abstraction of the notion or relationship of propositions or propositions.

- Teori dinyatakan pula sebagai alat dari ilmu (*tool of science*), sedangkan perannya sebagai berikut:

    - Mendefinisikan orientasi utama dari ilmu dengan cara memberikan definisi terhadap jenis data yang akan dibuat

    - Teori memberikan rencana konseptual, dengan rencana fenomena-fenomena yang relevan disistematisasikan, diklasifikasikan, dan dihubung-hubungkan.

    - Theory clarifies the gaps in our knowledge.

    - Teori memberikan prediksi terhadap fakta

Teori dan Fakta

- In essence, facts are observations that have been empirically verified. In the process, facts can become a science, but also vice versa. Facts will not become a science if they are generated randomly. However, when collected systematically, these facts can give birth to a science. As a key that facts mean nothing without a scientific theory in it.

- A fact is an actual state in nature. A theory is true if it corresponds to the facts.

- Facts are what theory explains and theory can explain a fact.
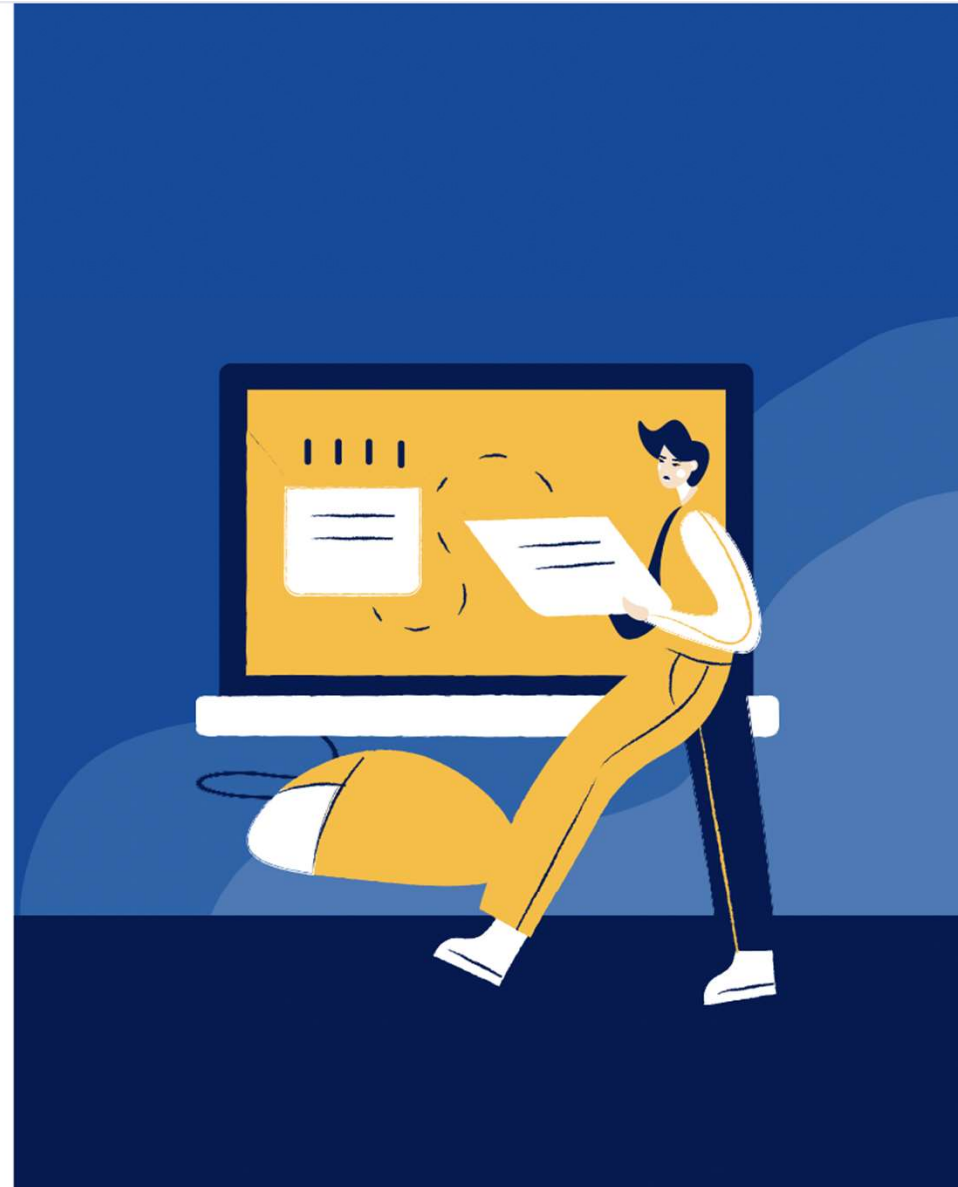
Hubungan Teori dan Fakta

- Theory predicts facts

- Theory of reducing reach

- Theory sums up the facts

- Theory clarifies the empty gap

- Facts initiate theory

- Facts reformulate existing theory

- Facts can refute theory

- Facts give way to change theory

Konsep Dasar Data

- In the KBBI, data is defined as an existing fact that serves as a source material for compiling an opinion, correct information, and information or material used for reasoning and investigation.

- In another sense, data are all information from someone who is a respondent or from documents, either in the form of statistics or in other forms for research purposes.

- Based on the descriptions of several experts, it can be said that data is a fact or part of a fact that has meaning in relation to reality, symbols, pictures, numbers, letters that indicate ideas, objects, conditions, or situations obtained through an observation or data are interpreted as information. about something.

Klasifikasi Data

- Based on the nature of the data: Quantitative data and qualitative data

- Based on data sources: Internal data and external data

- Based on how to get it: Primary data and secondary data

- Based on the scope of the collector: Census data and sample data

- Based on data dynamics: Static data, dynamic and semi-dynamic data.

- Based on the measurement scale: Nominal, ordinal, interval, ratio data.

Nilai dan Kualitas Data

There are 3 indicators that can be used to determine the value of the data, which are as follows:

- *Data precision*
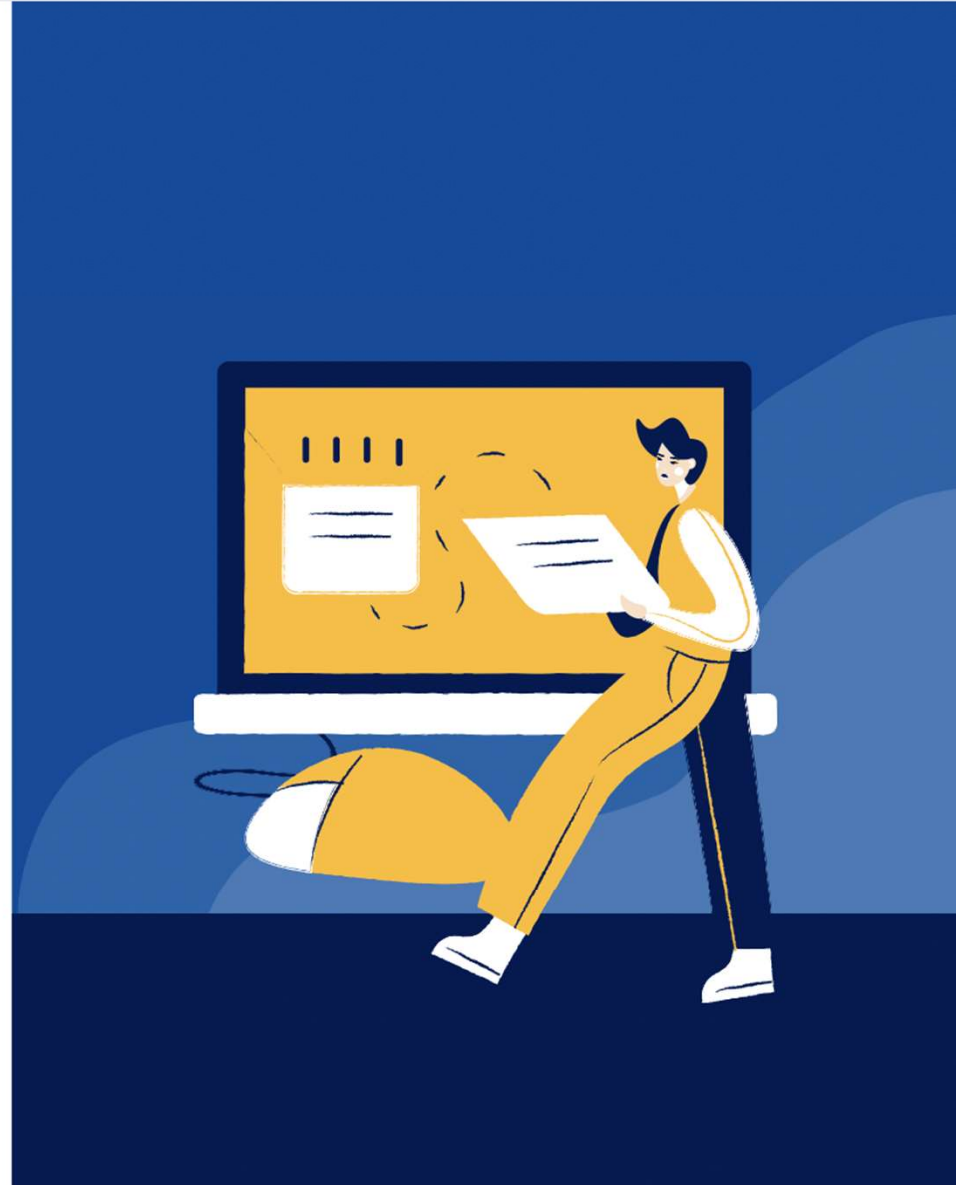
- *Data comparability*

- *Data validity*

Meanwhile, the reference concept to determine data quality consists of 4 categories and several dimensions, namely:

- Kategori I: *intrinsic*

- Kategori II: *accesibility*

- Kategori III: *contextual*

- Kategori IV: *representational*

Basic Concepts of Information

- Information or information comes from the Latin "informationem" which means concept, idea, outline.

- Information is data that has been processed or processed so that it becomes a form that has meaning for recipients of information that has useful value.

- Thus, information can be re-explained as something that results from data processing to be easier to understand and meaningful that describes the events and facts that exist.

Information Sources and Functions

- The source of information is data. Data is a fact that describes an event and a real entity. An event is something that happens at a certain time.

- In the business world, events that occur are changes in a value called transactions. For example, a sale is a transaction that changes the value of goods into the value of money or the value of accounts receivable. Real unity is in the form of real objects, such as places, things, and people that exist and occur.

- The main function of information is to increase knowledge or reduce the uncertainty of information users where armed with information a person can make good decisions. However, in complex decision making, information can only increase the possibility of certainty or reduce the variety of choices

Information Value

- Easily obtained

- Spacious and complete

- Accuracy

- Compatibility

- Punctuality

- Clarity

- Flexibility

- Provable

- No prejudice

- Can be measured

Information Quality

- *Accuracy*
- *Consistenci*
- *Security*
- *Timeliness*
- *Completeness*
- *Concise*
- *Reliability*
- *Accessibility*
- *Availability*
- *Value - added*

- *Objectivitiy*
- *Relevancy*
- *Useability*
- *Understandability*
- *Amount of data*
- *Believability*
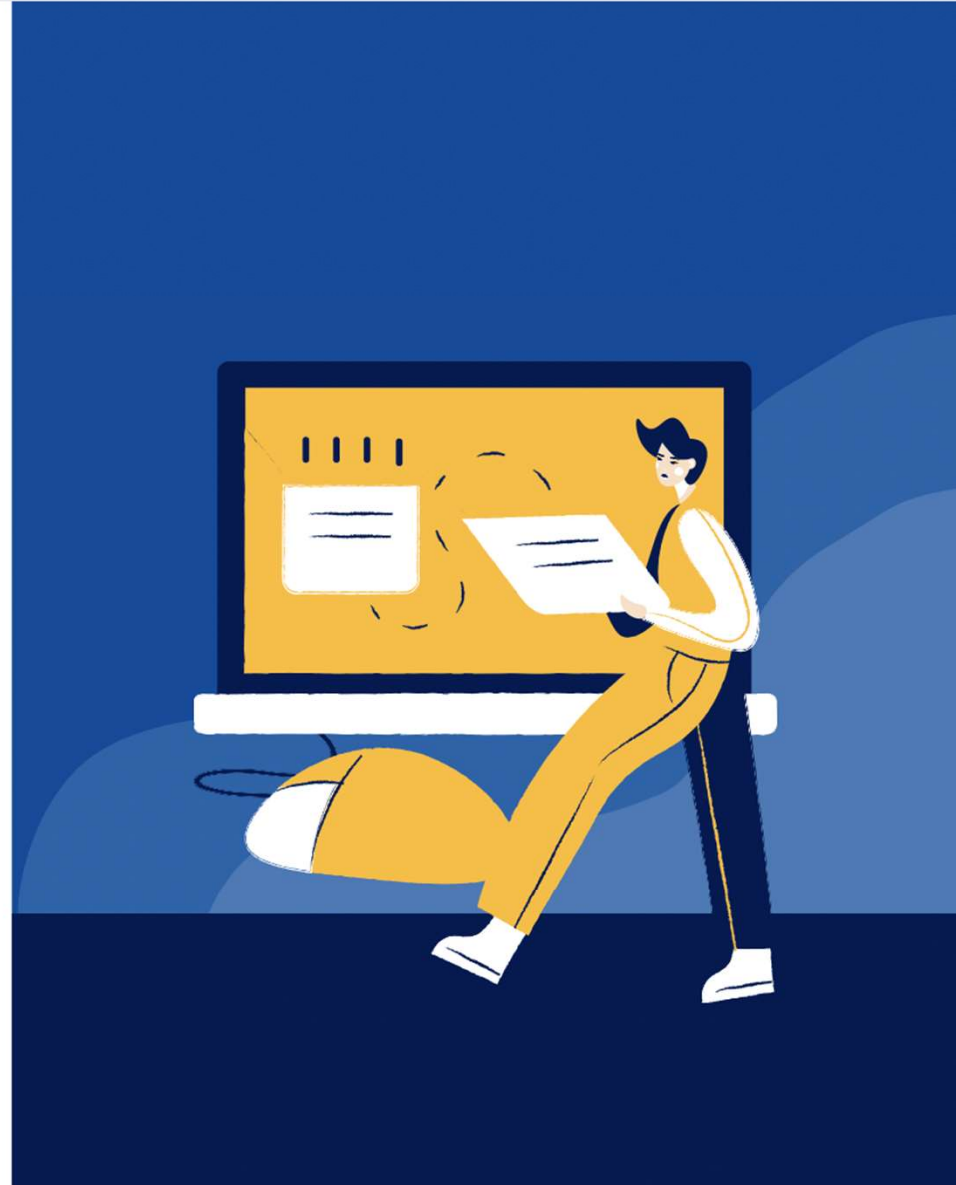- *Navigation*
- *Reputation*
- *Useful*
- *Eficiency*

Information Quality Component

- *Root of information*

- *Bar of information*

- *Branch of information*

- *Stick of information*

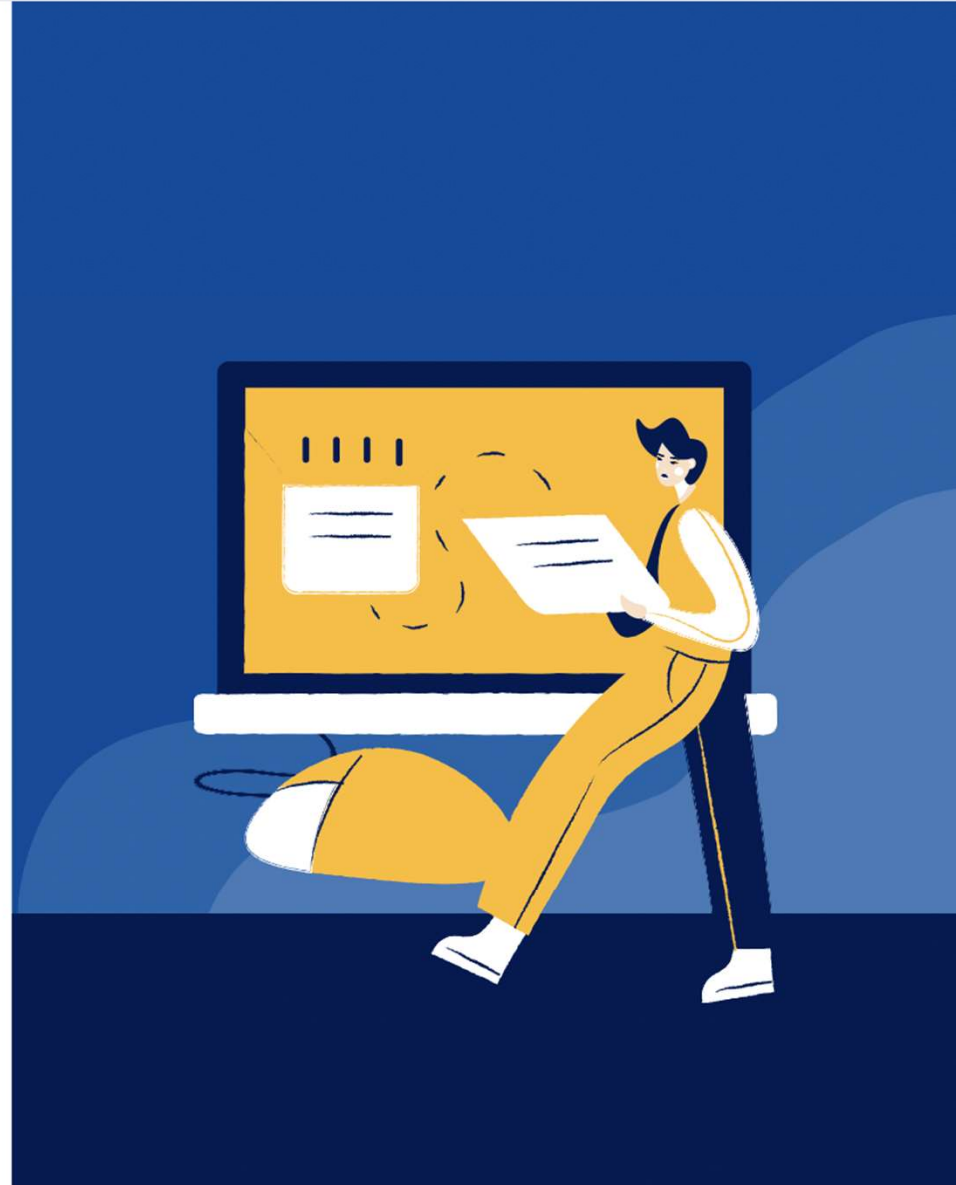- *Bud of information*

- *Leaf of information*

Information Features

- *Amount of information*

- *Quality of information*

- *Recency of information*

- *Accuracy of information*

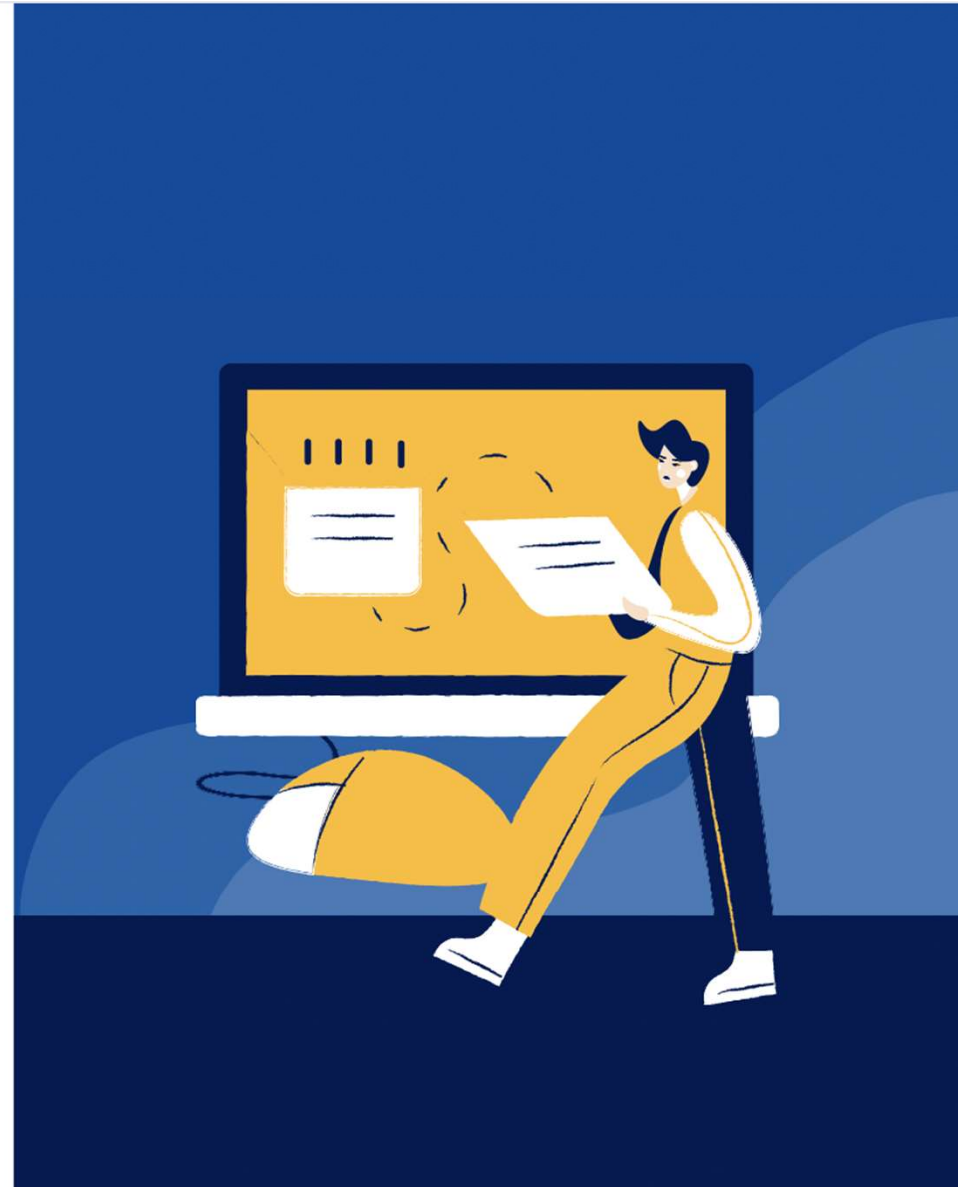- *Authenticity of information*

Information Benefits

- Increase knowledge

- Reducing user uncertainty

- Reduce the risk of failure

- Reduce unnecessary diversity

- Provide standards, rules, measures, and decisions to define achievements, goals and objectives

Information Needs

- Information need characteristics: a person's demographics, context, frequency, likelihood, importance, and complexity.

- Information needs approach: current need approach, everyday need approach, exhaustic need approach, catching-up need approach.

- Criteria for selecting information sources: relevance, credibility, utilization, creation process, up-to-date information sources, objectivity, depth of information.

Information Type

- Data collection information

- Attention guidance information

- Troubleshooting information

Information Characteristics

- Information must be permanent

- Information must be accurate

- Information must be timely

- Relevant