ICT 700 Business Information Systems

LECTURE 1

Business driven MIS, People, Technology, Processes and Structure in IS

Course Coordinator:
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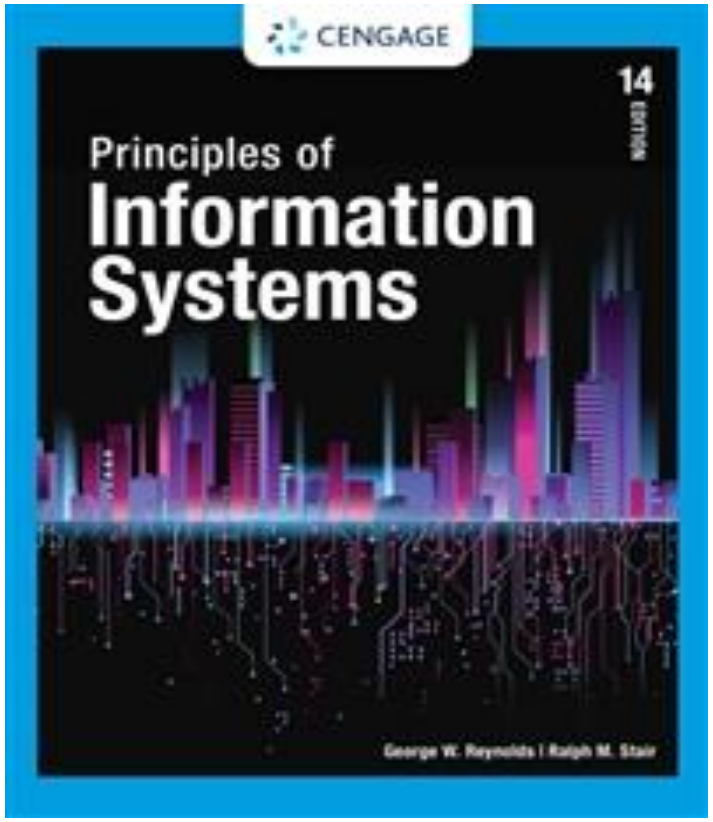
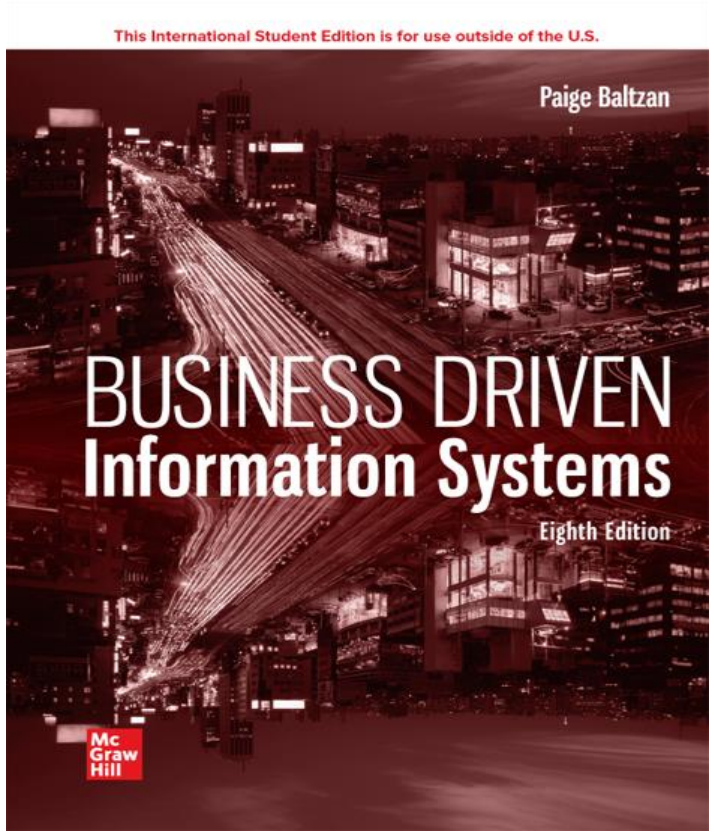




Reading Chapters:

Chapter 1 - Baltzan (2019)

Chapter 1 – Stair & Reynolds (2020)

Course Outline

1. Subject Learning Outcomes
2. Assessments
3. Weekly Attendance

Subject Learning Outcomes

Subject Learning Outcomes	Contribution to Graduate Attributes
a) Evaluate the role of information systems in business and their use in business process automation, compliance, and decision-making for competitive advantage.	
b) Analyse the business requirements for developing an information system.	
c) Critically discuss the integration for supporting operations across the business.	
d) Compare the various types of information systems and how they can be used to improve business performance.	
e) Analyse ethical and security issues of information systems for business	

Assessments

Assessment Type	When Assessed	Weighting	Learning Outcomes Assessed
Quiz	Week 4	10	a, b, c
Individual Assessment	Week 6	20	b, c, d,
Individual Case Study Assessment	Week 8	35	c,d, e
Group Report And Group Presentation	Week 12 Week 11/12	35	a, b, c, d, e

Learning Objectives

1. Describe information concepts: Data versus Information.
2. Discuss criteria for the value of information.
3. Describe what is an information system.
4. Explain the functional areas of a business.
5. Explain information technology's role in business.
6. Explain do information technologies measure success.
7. Compare management information systems (MIS) and Information Technology (IT).
8. A case study: Marks and Spencer.

Data versus Information

- **Data** consists of raw facts.
  For examples: Student ID, Student Name, Student Address

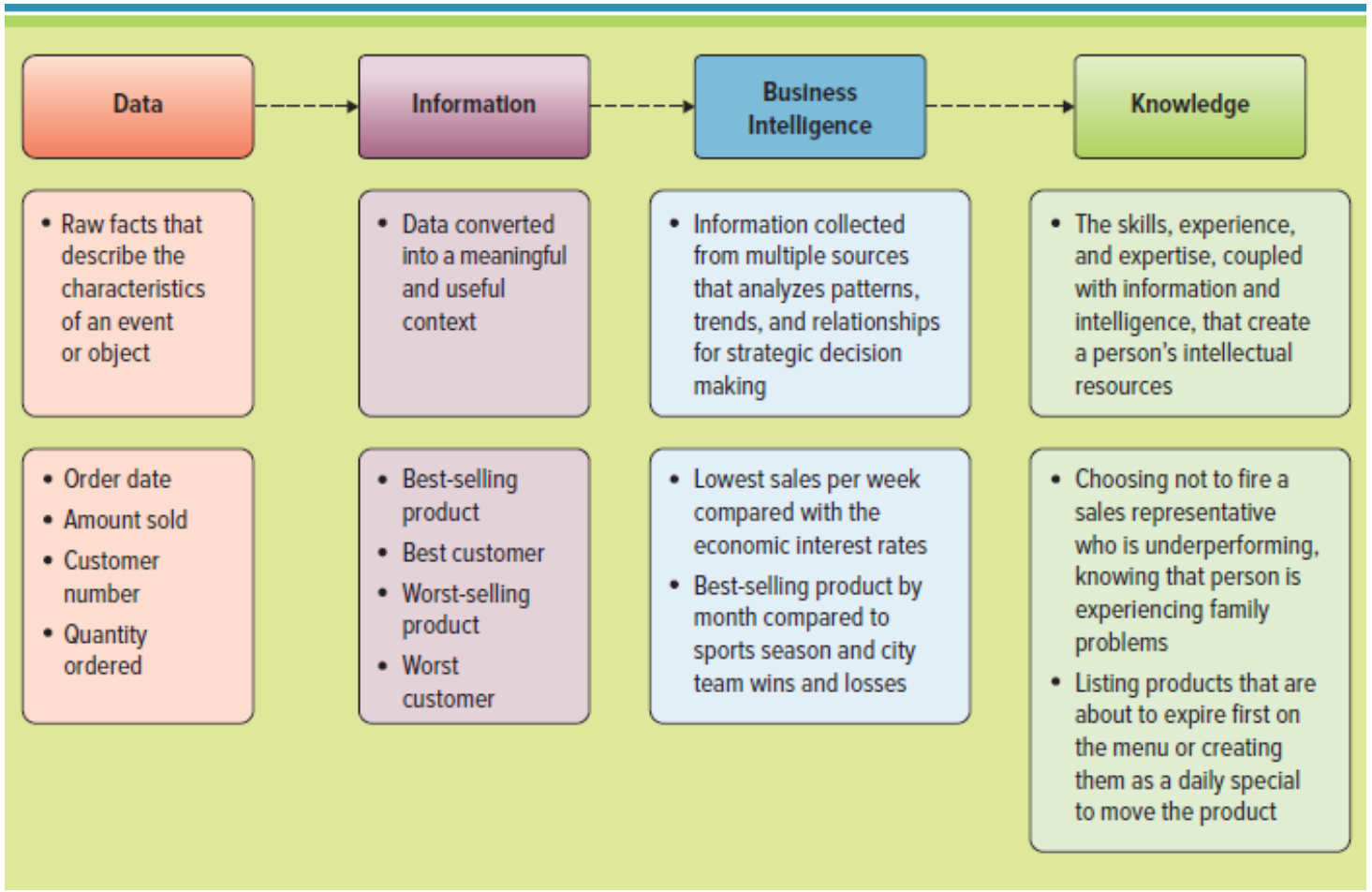
- **Information** is a collection of facts organised in such a way that they have additional value beyond the value of the facts themselves.
  For examples: Business Information Systems enrolment has 500 students in this college.
  Business Information Systems is a non-technical subject.
  You do not require to learn any programming language.

Types Of Data

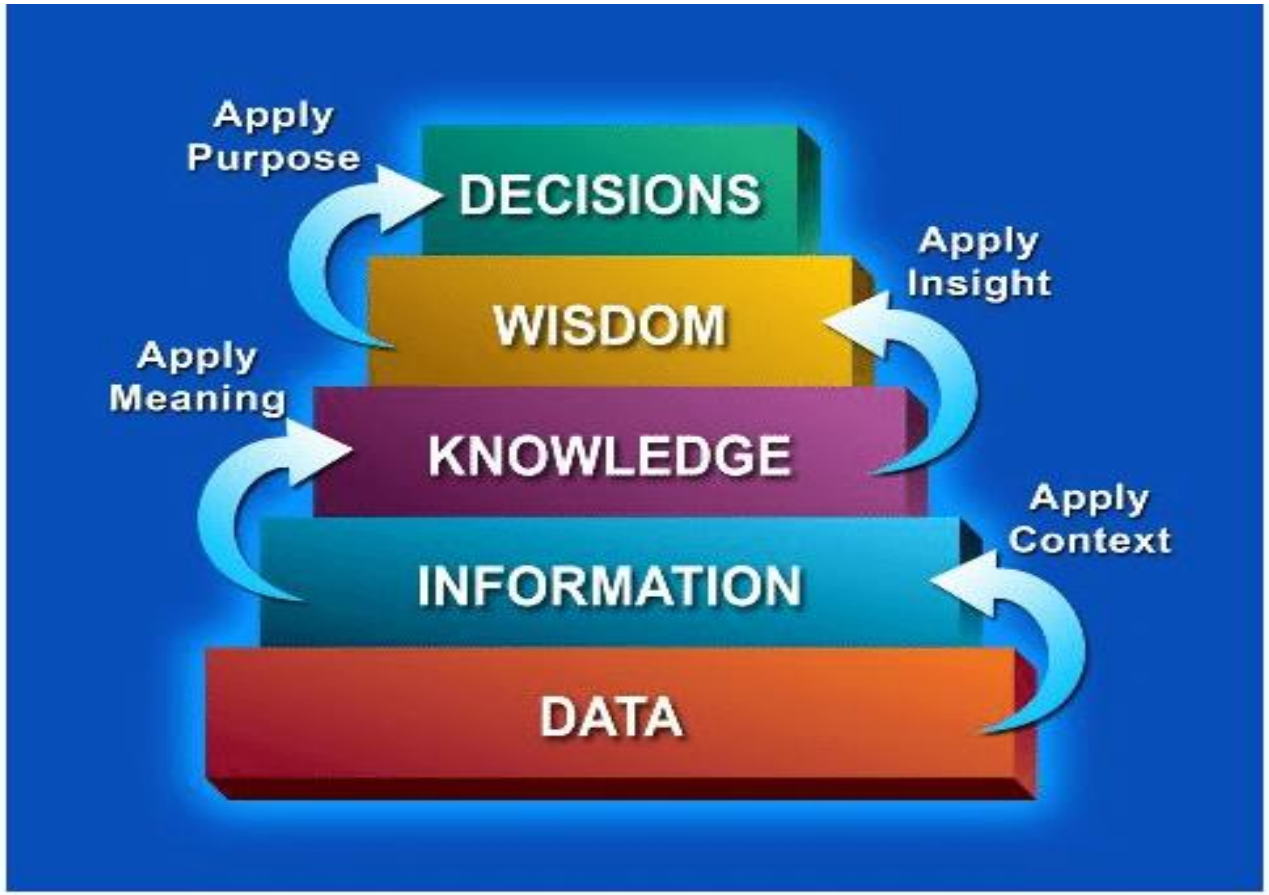
Data	Represented By
Alphanumeric	Numbers, Letters and other characters
Image Data	Graphic images and pictures
Audio data	Sound, noise or tones
Video data	Moving images or pictures

Source from Principles of Information Systems

The Differences Among Data, Information, Business Intelligence, And Knowledge



The Process of Transforming Data Into Information



Source from https://www.researchgate.net/figure/Transformation-of-raw-data-into-information-and-then-into-decisions-according-to-the-view_fig1_333258754

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Quiz

Q1. A collection of text, numbers or symbols in raw or unorganised form.

1.Data
2.Information
3.Knowledge

Q2 This is processing data, usually by computer. The data can then be used in context and have meaning.

1.Data
2.Information
3.Knowledge

Q3 Information is...

1. A collection of text, numbers or symbols in raw or unorganised form.
2.This is processing data, usually by computer. The data can then be used in context and have meaning.
3..Combining, using and recalling facts to solve problems.

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Criteria For The Value Of Information

Criteria which defines the value of information:

1. **Accuracy/precision/correctness** — Information should be precise and close to reality. Also, information should be free of distortion, bias, or errors.

2. **Consistency** — The information should be free of contradictions or convention breaks.

3. **Applicability** — Information should be able to be applied directly.

4. **Clarity/format** — Information should be well, understandable and clearly presented to the user.

5. **Comprehensiveness/completeness** — The scope of information should be adequate. There should be not too much nor too little information

6. **Conciseness** — The information should be to the point and should void of unnecessary elements.

Source from https://medium.com/indrastra/14-point-criteria-for-defining-the-value-of-information-voi-5d26bfbfa74f

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The Value Of Information Criteria and Its Definition

7 **Convenience** — The information should correspond to the user's needs and habits

8. **Currency** — The information should up-to-date and not obsolete

9. **Traceability** — The background of the information should be traceable, such as the used data, author(s)

10. **Accessibility** — The information should be continuously accessible without not too many obstructions

11. **Flexibility** — The information should be able to adapt to (the changing demands of) the user?

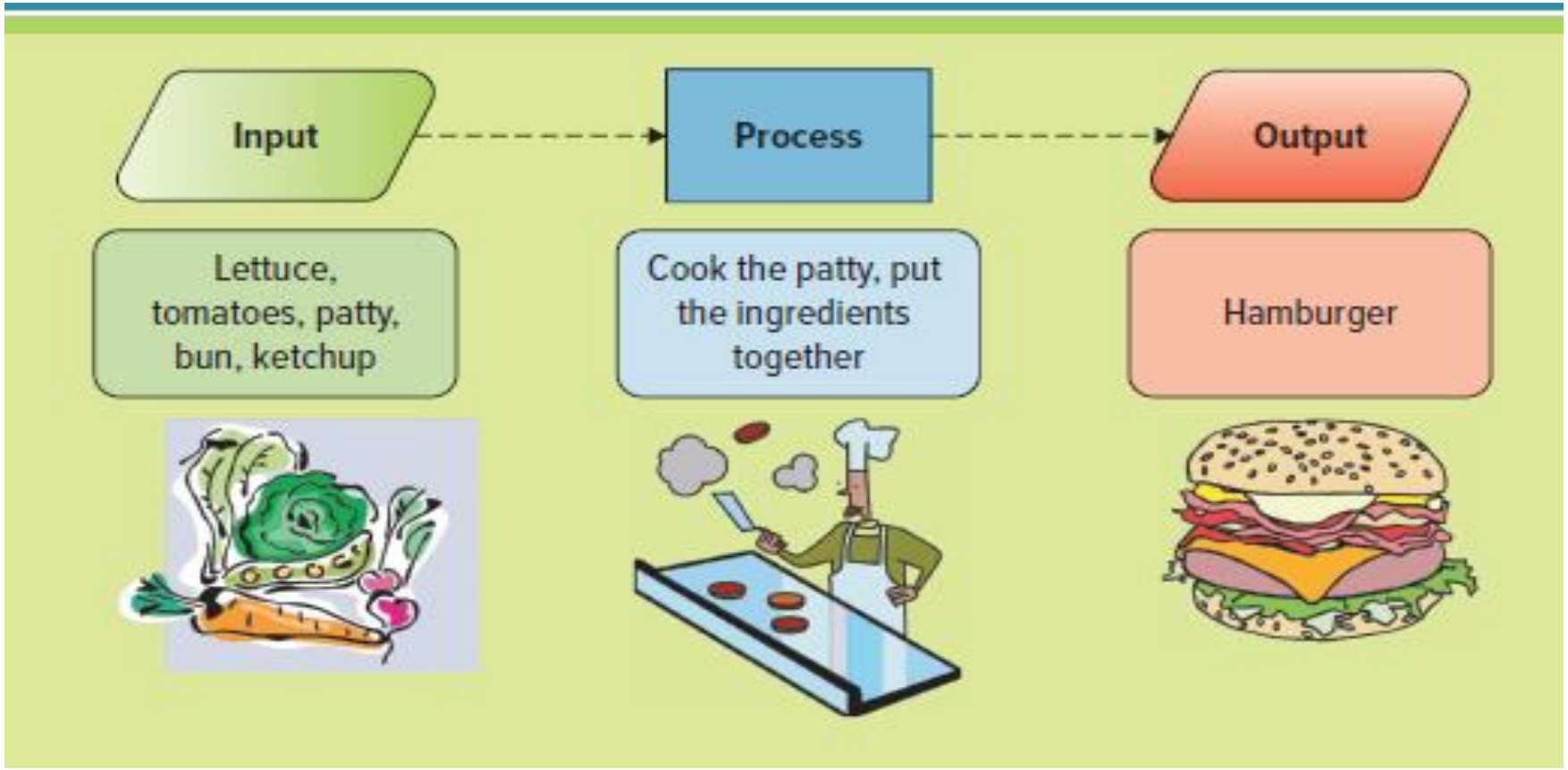
12. **Integration —** The system should allow data to be integrated from various sources

13. **Reliability** — The system operation should be reliable

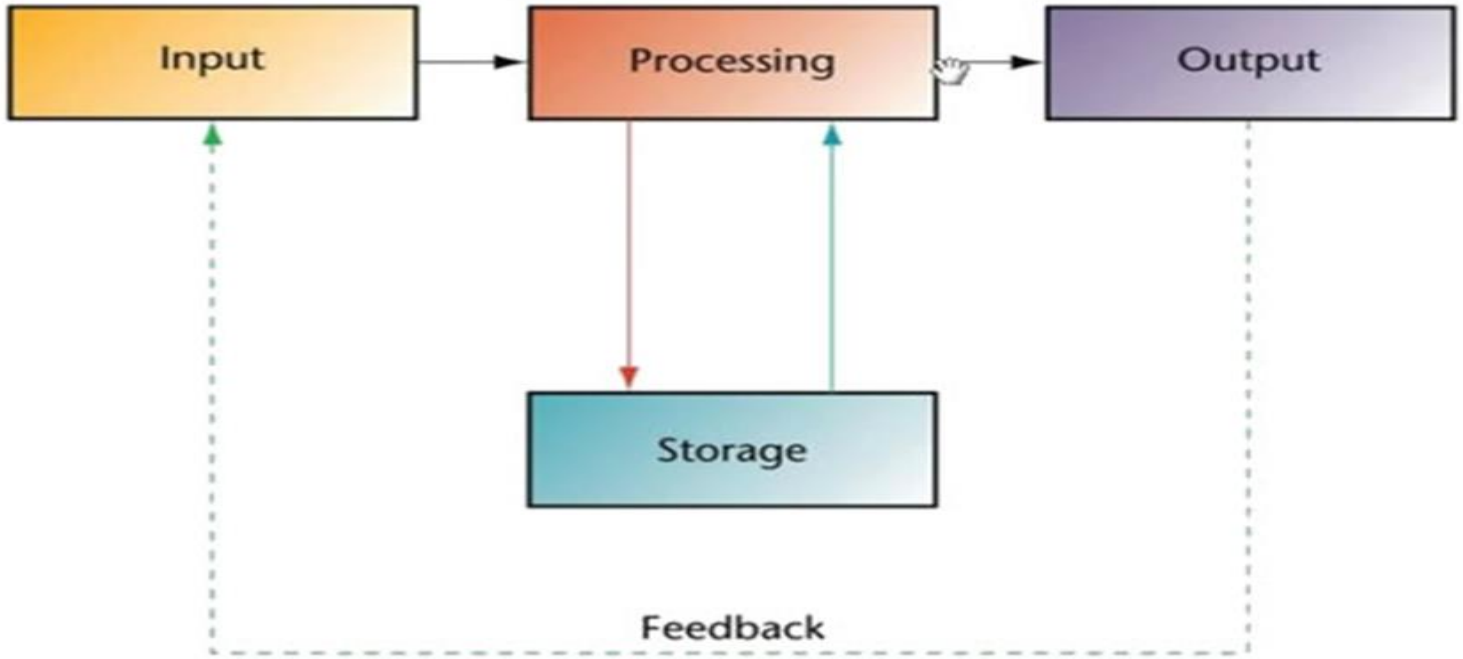
14. **Timeliness/Speed** — The information should be processed and delivered rapidly without delays. The information should also match the user's working pace

Source from https://medium.com/indrastra/14-point-criteria-for-defining-the-value-of-information-voi-5d26bfbfa74f

Input, Process and Output Example



Describe What Is An Information System



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Input, Process, Output, Storage and Feedback

Input : Taking information that is external to the system and entering it into the system.
This may be manual (e.g. keyboard) or automated input (e.g. OMR).
May also be input by electronic means (e.g. via a network or CD).

Processing/ Process: An action performed on the data. Processing can include sorting, searching or performing calculations on the data

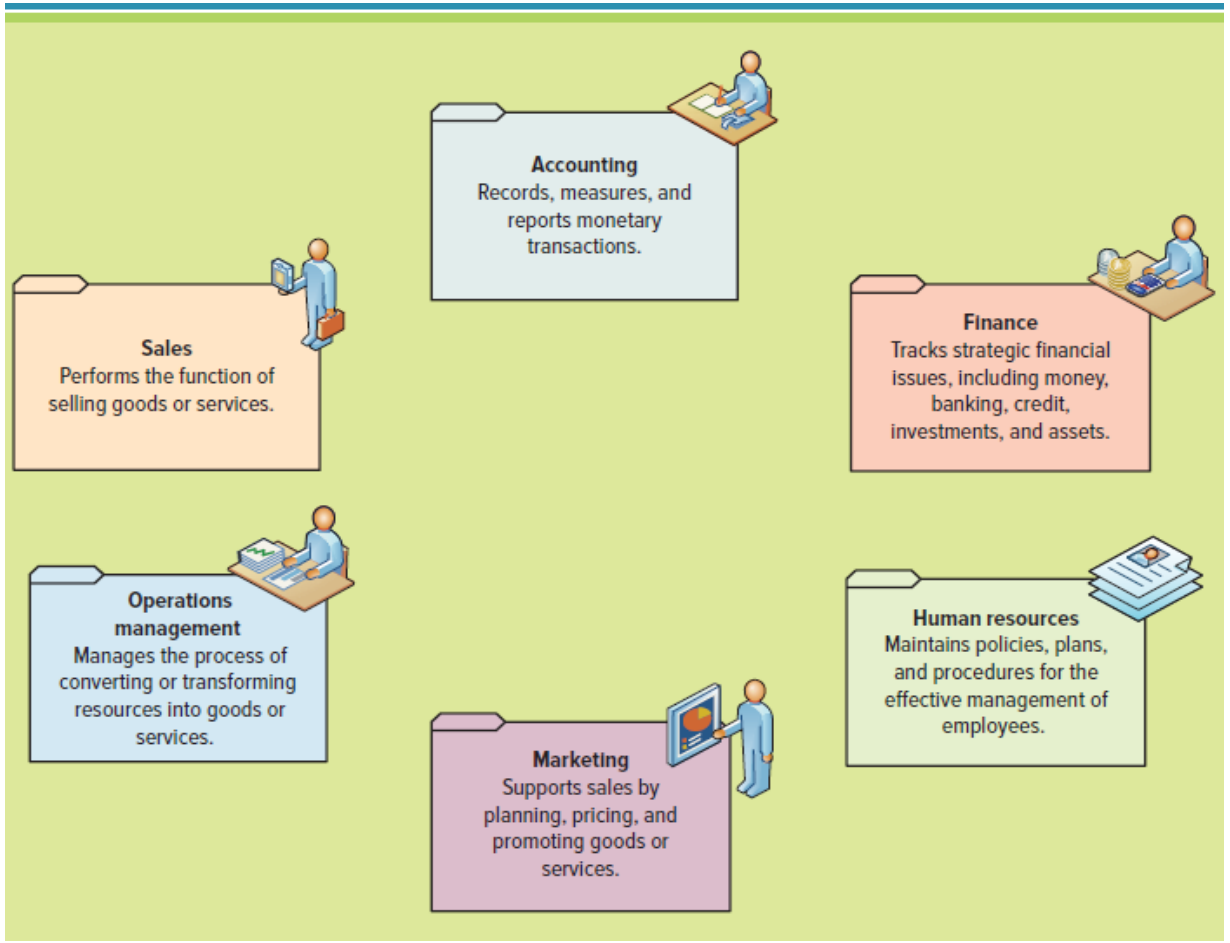
Storage : Where data is held and still in the system. It may be the data that has been input, required during processing or results of processing

Output: Taking information that was in the system and outputting it. May result in a printed, on screen or electronic

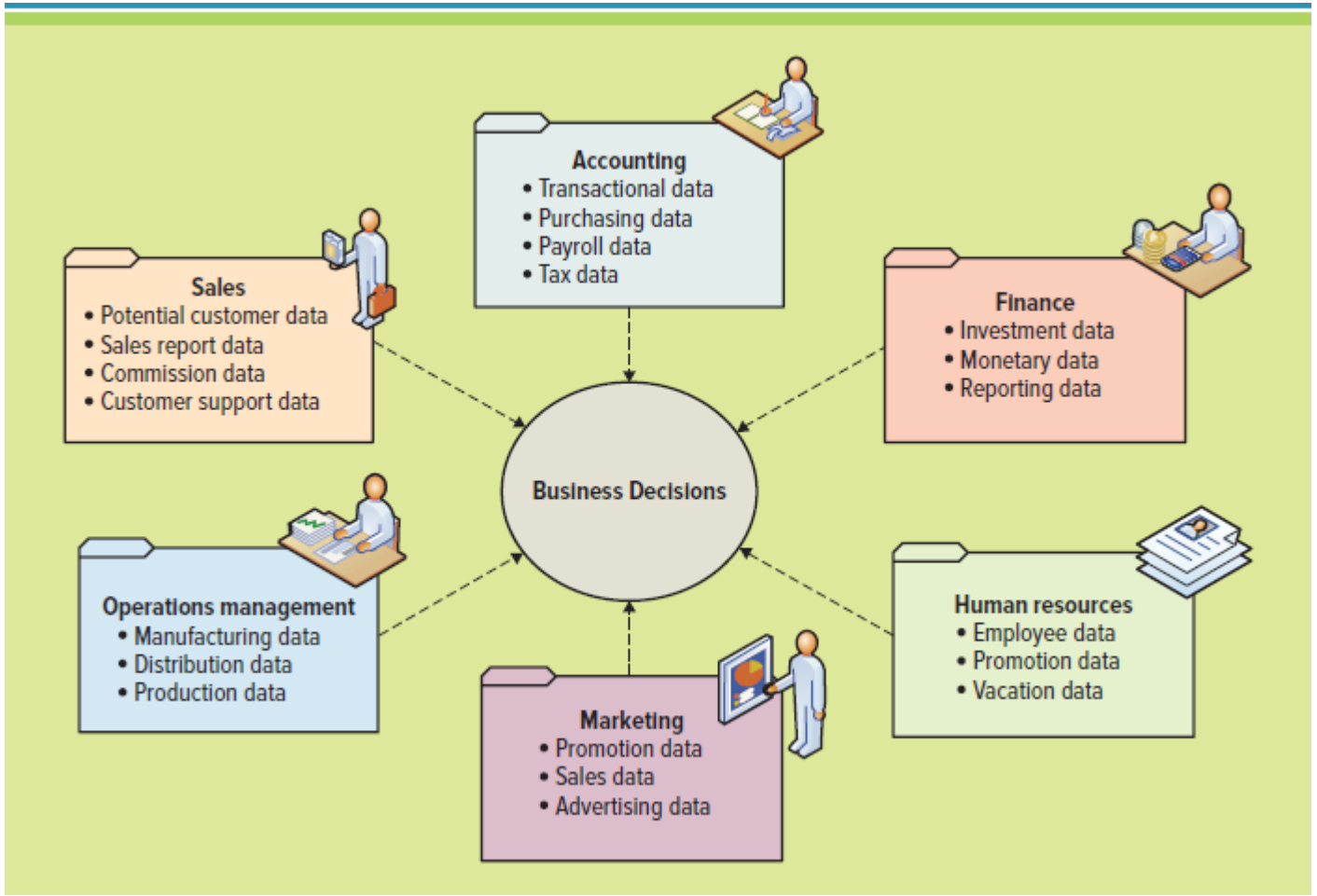
Feedback: It is an output that is used to make changes to input or processing activities.

Explain the functional areas of a business

- Sales
- Marketing
- Operations
- Accounting
- Finance
- Human Resources

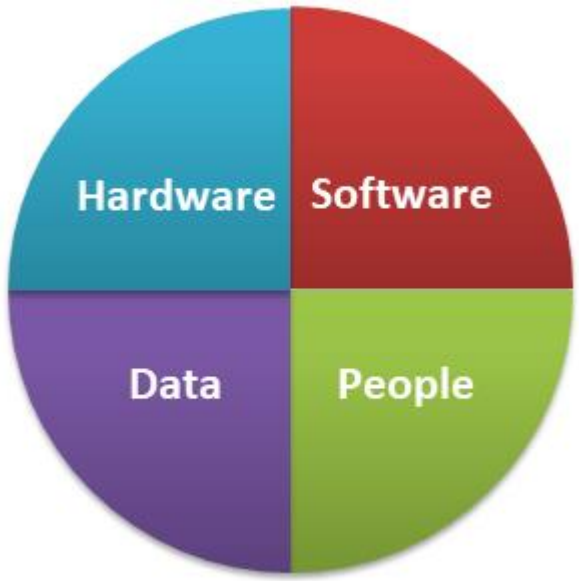


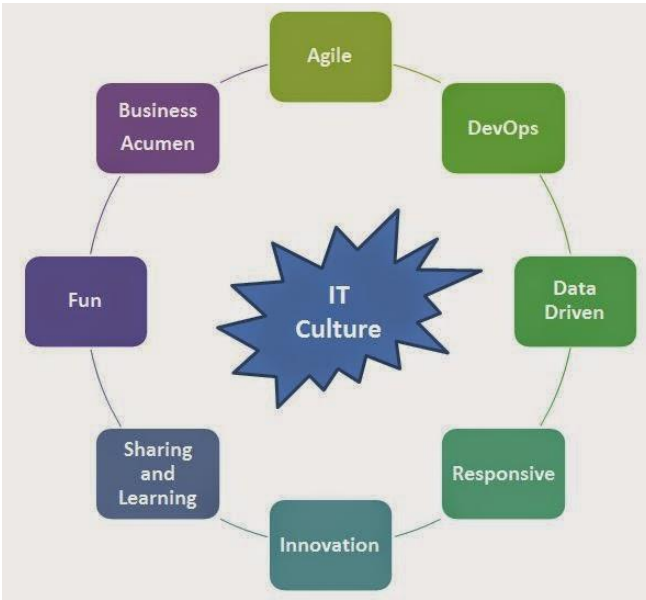
Business Decisions From The Functional Areas Of A Business

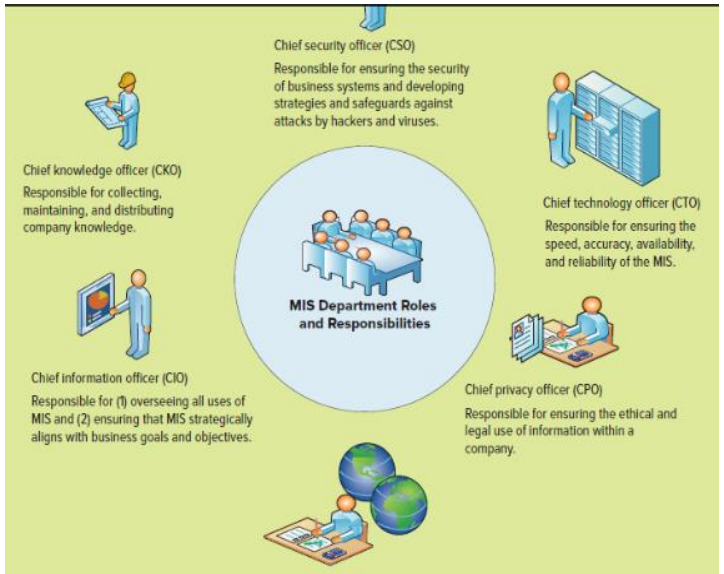


Explain Information Technology's Basics

1. IT Resources
2. IT Cultures
3. Roles and Responsibilities in Information Technology

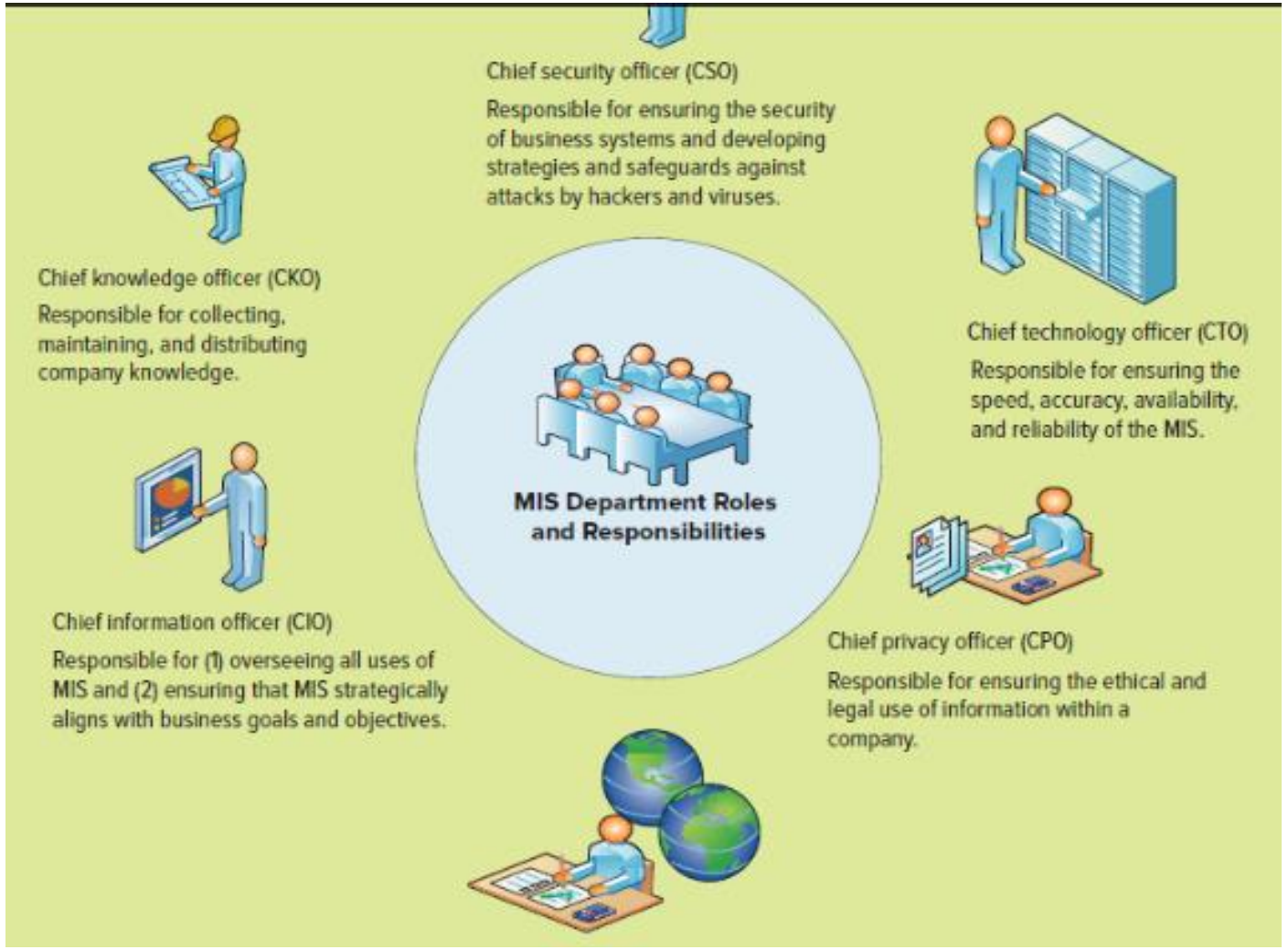






Information Technology's Role in Business

1. Chief Technology Officer (CTO)
2. Chief Security Officer (CSO)
3. Chief Knowledge Officer (CKO)
4. Chief Privacy Officer (CPO)
5. Manager



Measure Information Technology's Success

1. Key Performance Indicators
2. Efficiency Metrics
3. Effectiveness Metrics

Key Performance Indicators (KPI)

1. Business drivers.

2. Business processes.

3. Business functions.

Efficiency Metrics

IT system itself like :

1. Throughput.

2. Speed.

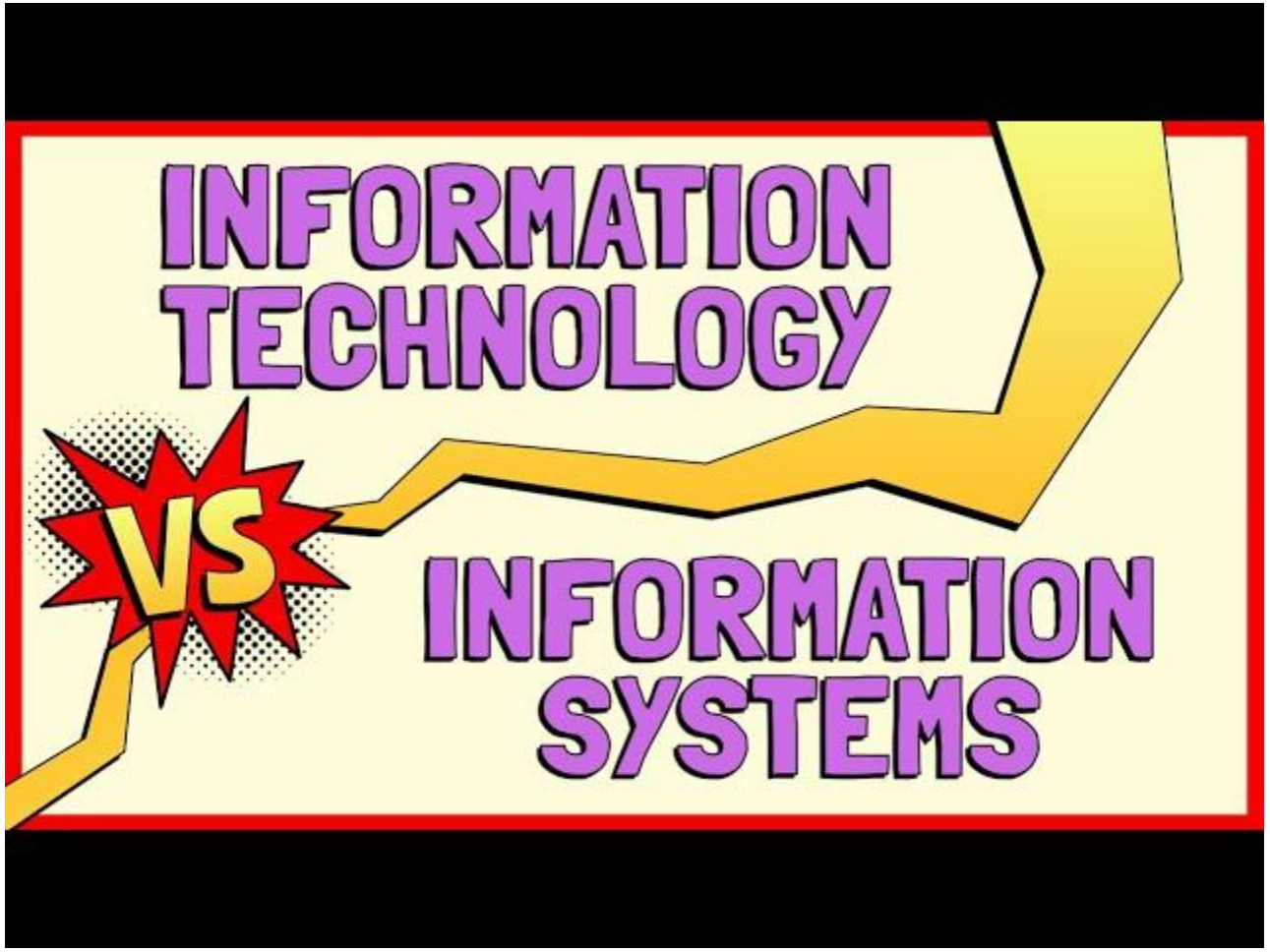
3. Availability.

Effectiveness Metrics

Measure the Impact IT has on business processes and activities including customer satisfaction, conversion rates,

1. Throughput.
2. Speed.
3. Availability.

Compare management information systems (MIS) and Information Technology (IT).



Case Study: Marks and Spencer

MARKS & SPENCER

Activity

1. How MIS helps Marks and Spencer (Merchandise store) to tailor their products according to taste of customers?

2. Why technological applications are needed in the supply chain of UK retail sector?

3. How effective is RFID technology in the supply chain of UK retail sector?

Any Questions?

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