Information Systems Analysis & Modeling

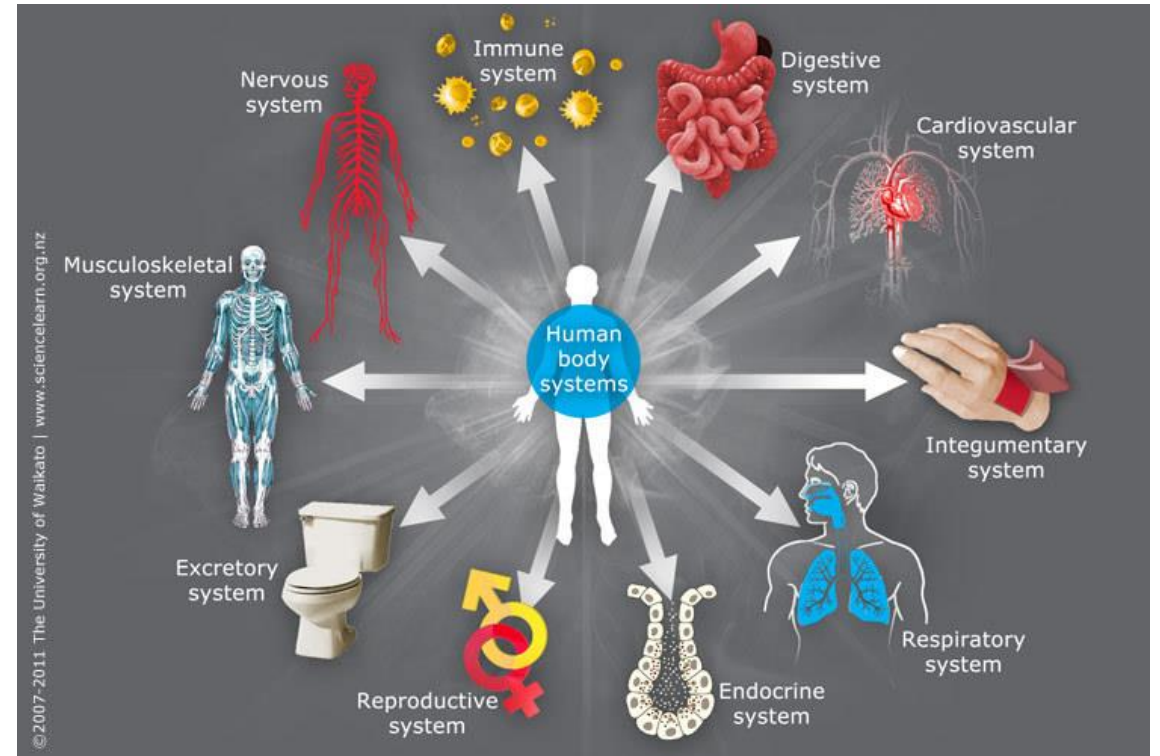## *Lecture 1: Introduction to Information Systems*

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Why study Information Systems?

- To become an informed user
- The organization you join will undoubtedly be undergoing a digital transformation
  - Vital component of successful businesses

What is a system?

- A system
  - Is a set of interrelated components
  - With a clearly defined boundary
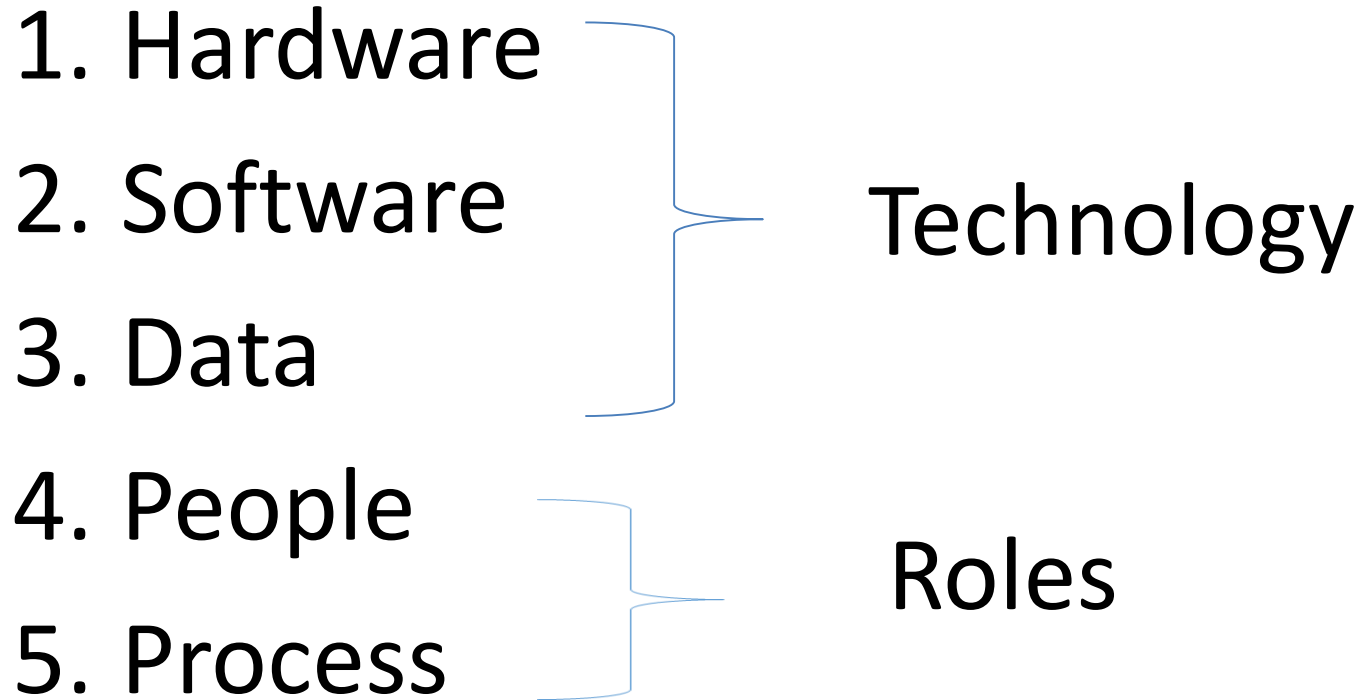 - Working together to achieve a common set of objectives

What is an Information System?

- An information system (IS) is a set of interrelated components that collects, processes, stores, analyzes and disseminates information for a specific purpose.

Information System Components

1. Hardware
2. Software
3. Data

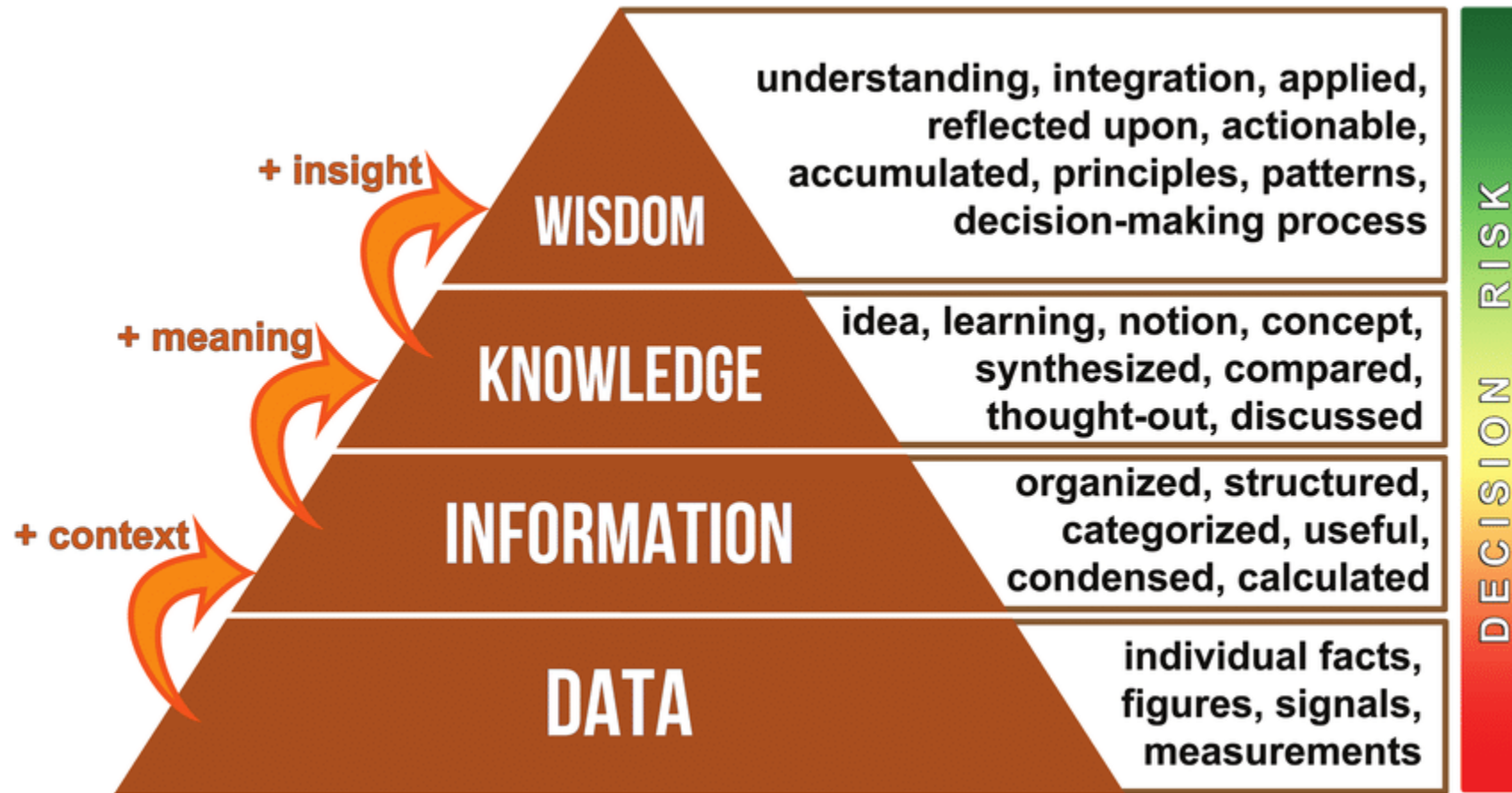Technology

4. People
5. Process

Roles

Technology

- Hardware – physical components

- Networks – allows the transmission and sharing of data

- Software – instructions that tell the physical components what to do
  - Operating systems – interacts with the hardware
  - Application software – interacts with the user
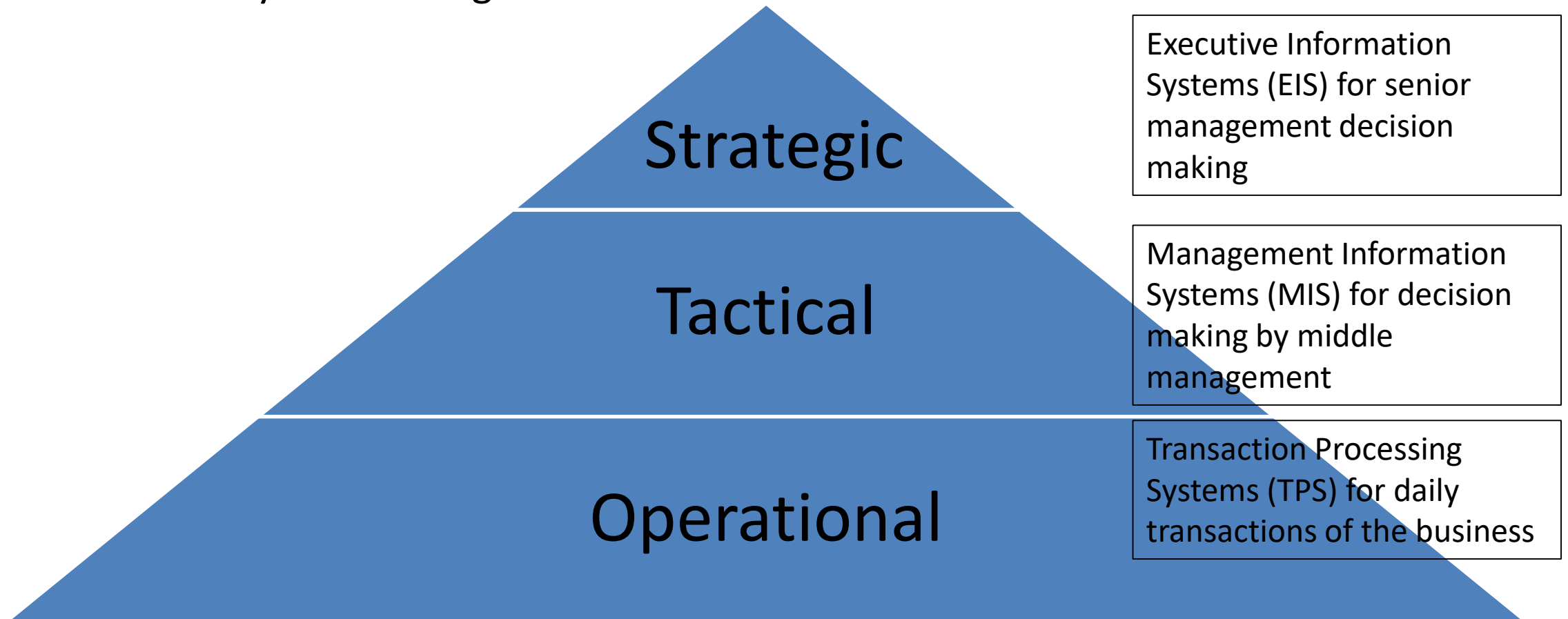
- Data – collection of facts

Roles

- People

  - Users

  - Stakeholders

  - They support decision-making, coordination, control, analysis, and visualization in an organization.

- Process: Series of steps to achieve a desired outcome

DIKW hierarchy

Anthony's Triangle

Convenient way to categorize and understand the purpose of different information systems in organizations:

Strategic — Executive Information Systems (EIS) for senior management decision making

Tactical — Management Information Systems (MIS) for decision making by middle management

Operational — Transaction Processing Systems (TPS) for daily transactions of the business

Case study 1

- In a group of 2 or 3 read and discuss the case study and answer the provided questions.