Business Information System

By,
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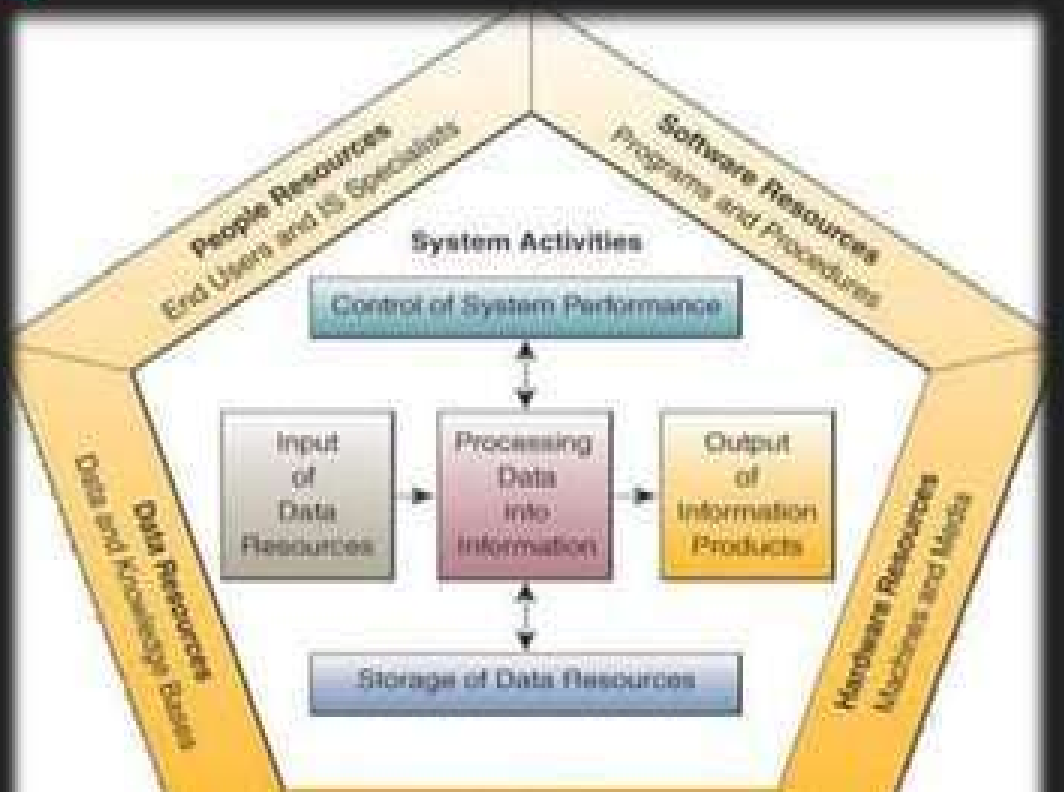
Information System

Information system, an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products. Business firms and other organizations rely on information systems to carry out and manage their operations, interact with their customers and suppliers, and compete in the marketplace.

Four levels of Information system

The three parts of the information systems triangle

Information system Frame Work



Business Information System

A large category of information systems comprises those designed to support the business of an organization. These systems rely on the data obtained by transaction processing systems, as well as on data and information acquired outside the organization (on the Web, for example) and provided by business partners, suppliers, and customers.

Contu.....

All information systems support decision making, however indirectly, but decision support systems are expressly designed for this purpose. As these systems are increasingly being developed to analyse massive collections of data (known as big data), they are becoming known as business intelligence, or business analytics, applications or business information system . The two principal varieties of decision support systems are model-driven and data-driven.

Transaction Processing System

A small business processes transactions that result from day-to-day business operations, such as the creation of pay checks and purchase orders, using a transaction processing system, or TPS. The TPS, unlike a batch system, requires that users interact with the system in real time to direct the system to collect, store, retrieve and modify data. A user enters transaction data by means of a terminal, and the system immediately stores the data in a database and produces any required output.

Contu.....

For example, a small-business owner may direct a bank system to debit a savings account for $500 and credit the company's checking account for $500. Because of constant system updates, a user can access current TPS data, such as an account balance, at any point.

Management Information System

Information systems support all levels of management, from those in charge of short-term schedules and budgets for small work groups to those concerned with long-term plans and budgets for the entire organization. Management Information systems provide routine, detailed, and voluminous information reports specific to each manager's areas of responsibility. These systems are typically used by first-level supervisors. Generally, such reports focus on past and present activities, rather than projecting future performance.

Contu....

MIS can create prescheduled reports, which company management can use in strategic, tactical and operational planning and operations. For example, an MIS report may be a pie chart that illustrates product sales volume by territory or a graph that illustrates the percentage increase or decrease in a product's sales over time

Decision Support System

A decision-support system, or DSS, allows business managers and owners to use predefined or reports to support operations planning and problem-resolution decisions. With DSS, users find answers to specific questions as a means to evaluate the possible impact of a decision before it is implemented. The answers to queries may take the form of a data summary report, such as a product revenue by quarter sales report.

Contu....

To conduct an analysis, business owners and managers use an interface -- a dashboard -- to select a particular graphic representation of a key performance indicator that measures the progress toward meeting a specific goal. For example, a manufacturing dashboard might display a graphic representing the number of products manufactured on a particular line.

Contu...

An important variety of decision support systems enables a group of decision makers to work together without necessarily being in the same place at the same time. These group decision systems include software tools for brainstorming and reaching consensus.

Executive Support System

The executive support system, or ESS, contains predefined reports that help business owners and managers identify long-term trends in support of strategic planning and no routine decision making. System users click on any icon displayed on the ESS screen and enter report criteria to view individual predefined reports and graphs, which are based on companywide and functional department data, such as sales, scheduling and cost accounting.

contu...

The ESS reports brief the business manager or owner on an issue, such as market trends and buyer preferences. The ESS system also offers analysis tools used to predict outcomes, assess performance and calculate statistics based on existing data

Contu....

Nevertheless, this assistance is important for the chief executive officer, senior and executive vice presidents, and the board of directors to monitor the performance of the company, assess the business environment, and develop strategic directions for the future. In particular, these executives need to compare their organization's performance with that of its competitors and investigate general economic trends in regions or countries. Often individualized and relying on multiple media formats, executive information systems give their users an opportunity to "drill down" from summary information to increasingly focused details.

Marketing Information Systems

A system that analyzes and assesses marketing information, gathered continuously from sources inside and outside an organization. Timely marketing information provides basis for decisions such as product development or improvement, pricing, packaging, distribution, media selection, and promotion. See also market information system.

SOURCE : MARKETING MANAGEMENT PHILIP KOTLER

Fig. 3.09

Manufacturing information system

A management information system that is targeted for use anywhere production is taking place. Modern management information systems are generally computerized and are designed to collect and present the data which managers need in order to plan and direct operations within the company.

Contu...

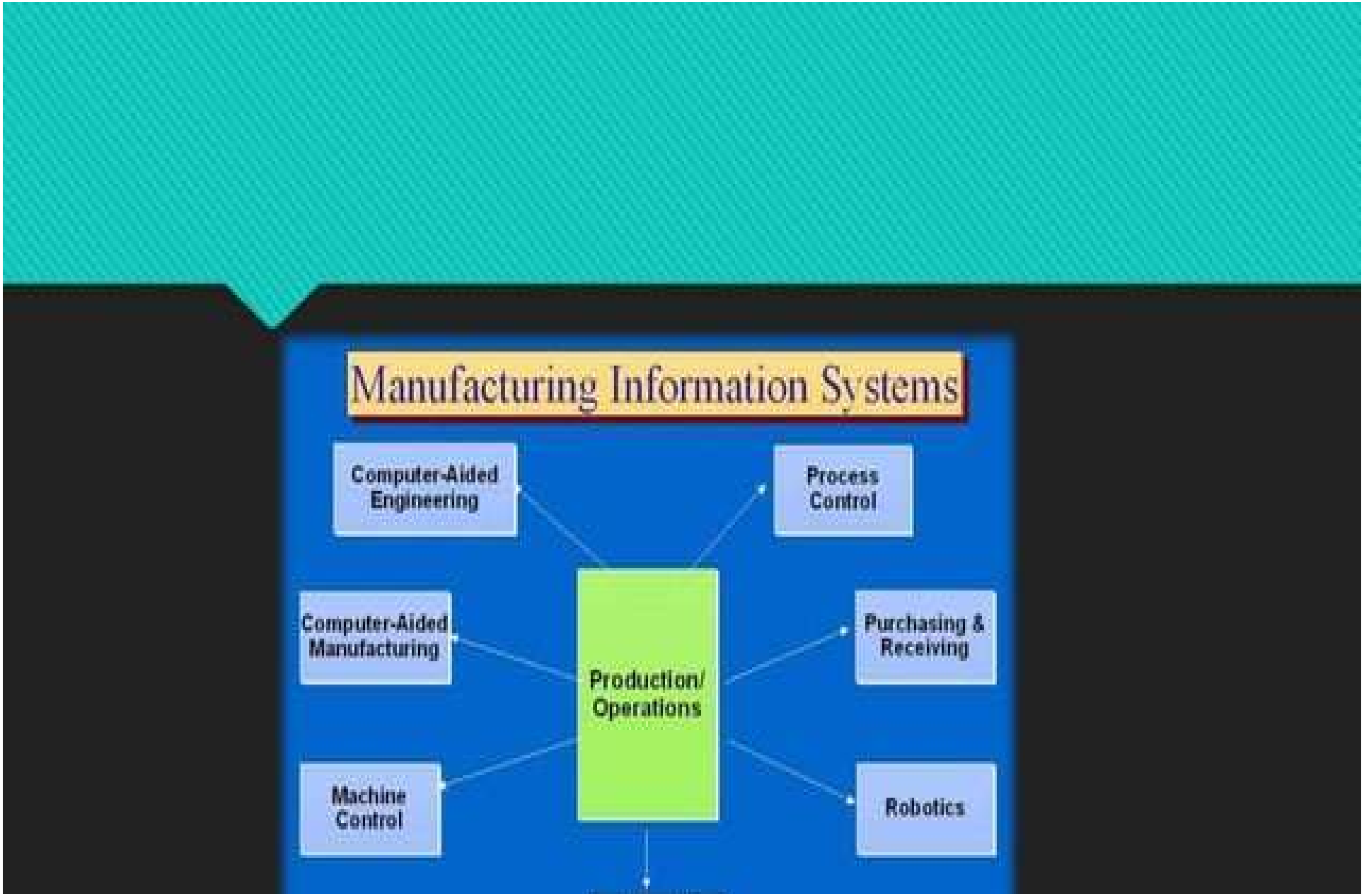
The manufacturing function is concerned with the production of goods that the business sells. production of goods that the business sells.

Manufacturing information Manufacturing information provide services to support the provide services to support the manufacturing function.

Contu...

inventory control is often considered to be manufacturing produces the goods for inventory.

Purchasing may also be a manufacturing information system in some businesses. System in some businesses.


Manufacturing Information Systems
Computer-Aided Engineering
Process Control
Computer-Aided Manufacturing
Production/ Operations
Purchasing & Receiving
Machine Control
Robotics

Human Resource Information Systems (HRIS)

A system which seeks to merge the activities associated with human resource management (HRM) and information technology (IT) into one common database through the use of enterprise resource planning (ERP) software. The goal of HRIS is to merge the different parts of human resources, including payroll, labour productivity, and benefit management into a less capital-intensive system than the mainframes used to manage activities in the past. Also called Human Resource Management Systems (HRMS)

Contu...


HRIS FUNCTIONS
Performance Evaluation
Training and Development
Recruitment
Compensation & Benefits
HRIS
Personal Self Service
People Administration
Payroll
Leave & Absence


Table of
Content
01 Meaning & Scope of AIS
02 Components of AIS
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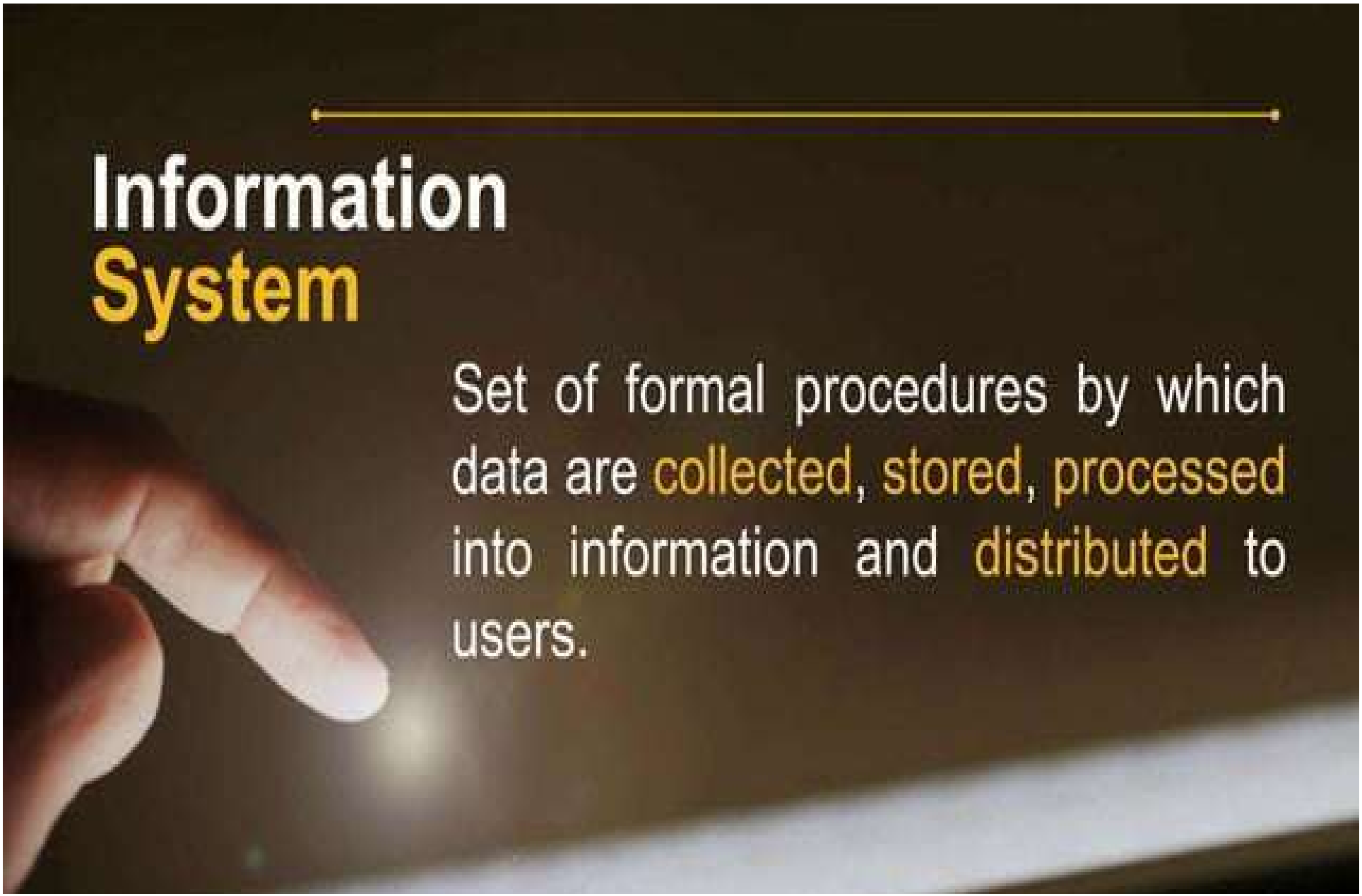
04 Discussion

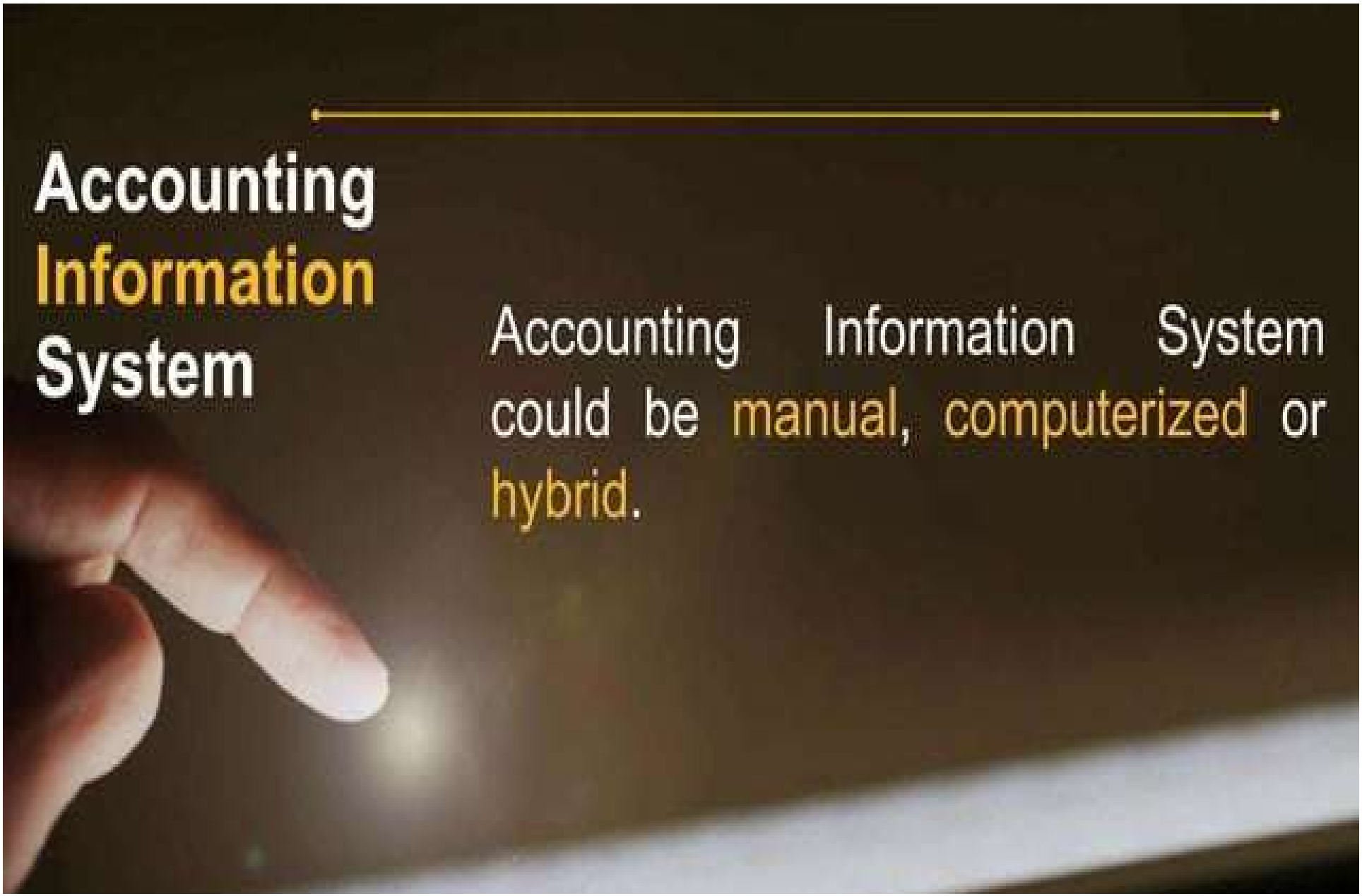

01
Meaning &
Scope of AIS

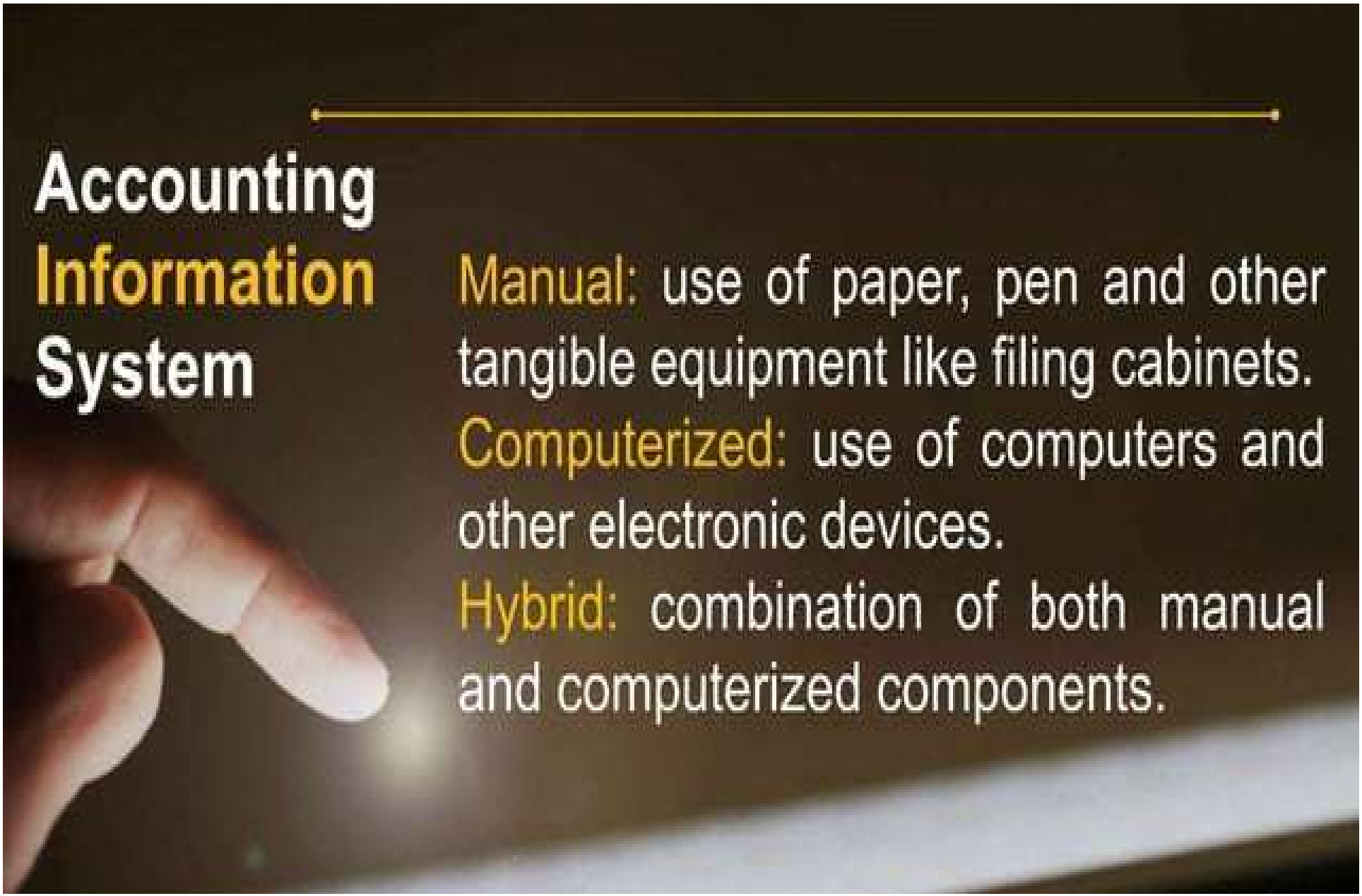
- The Central focus of AIS is information.
- Like other business resources of raw materials, capital, and labor; information is vital to the survival of the contemporary business organization.


System
Group of two or more interrelated components or sub-systems that serve a common purpose.


Information
System
Set of formal procedures by which data are collected, stored, processed into information and distributed to users.


Accounting
Information
System
Structure that a business uses to collect, store, manage, process, retrieve and report both financial and non- financial data to enable users make informed decisions.

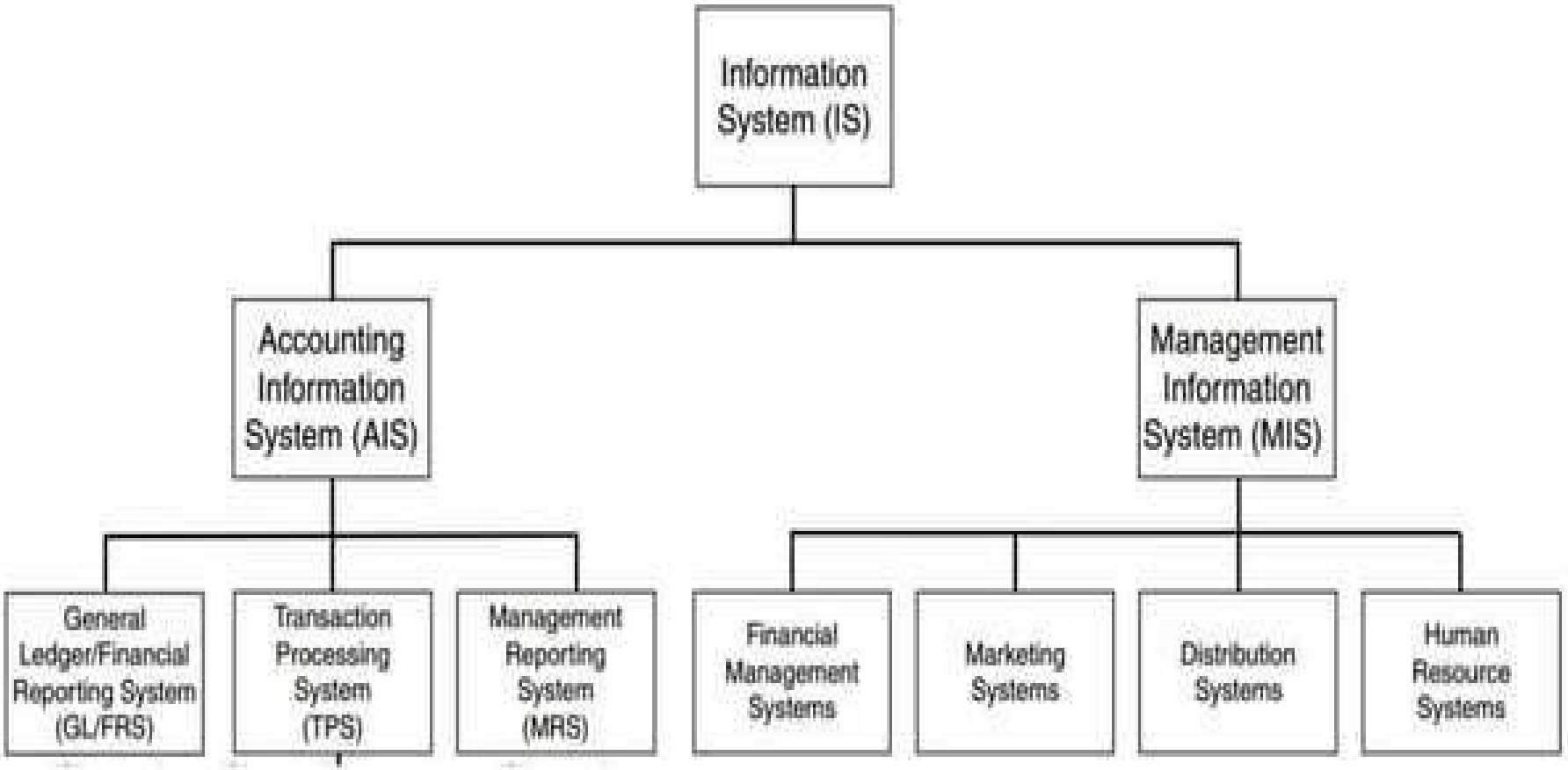

Accounting Information System
Accounting Information System could be manual, computerized or hybrid.


Accounting
Information
System
Manual: use of paper, pen and other tangible equipment like filing cabinets.
Computerized: use of computers and other electronic devices.
Hybrid: combination of both manual and computerized components.

AIS Vs. MIS

- The distinction between AIS and MIS centers on the concept of a transaction.
- A **transaction** Is an event that affects or is of interest to the organization and is processed by its information system as a unit of work.
- A **financial transaction** is an economic event that affects the assets and equities of the organization, is reflected in its accounts, and is measured in monetary terms.
- AIS subsystems process financial transactions and nonfinancial transactions that directly affect the processing of financial transactions.

AIS Vs. MIS


Information System (IS)
Accounting Information System (AIS)
Management Information System (MIS)
General Ledger/Financial Reporting System (GL/FRS)
Transaction Processing System (TPS)
Management Reporting System (MRS)
Financial Management Systems
Marketing Systems
Distribution Systems
Human Resource Systems

Users of AIS

INTERNAL USERS

E.g. Accountants & Managers

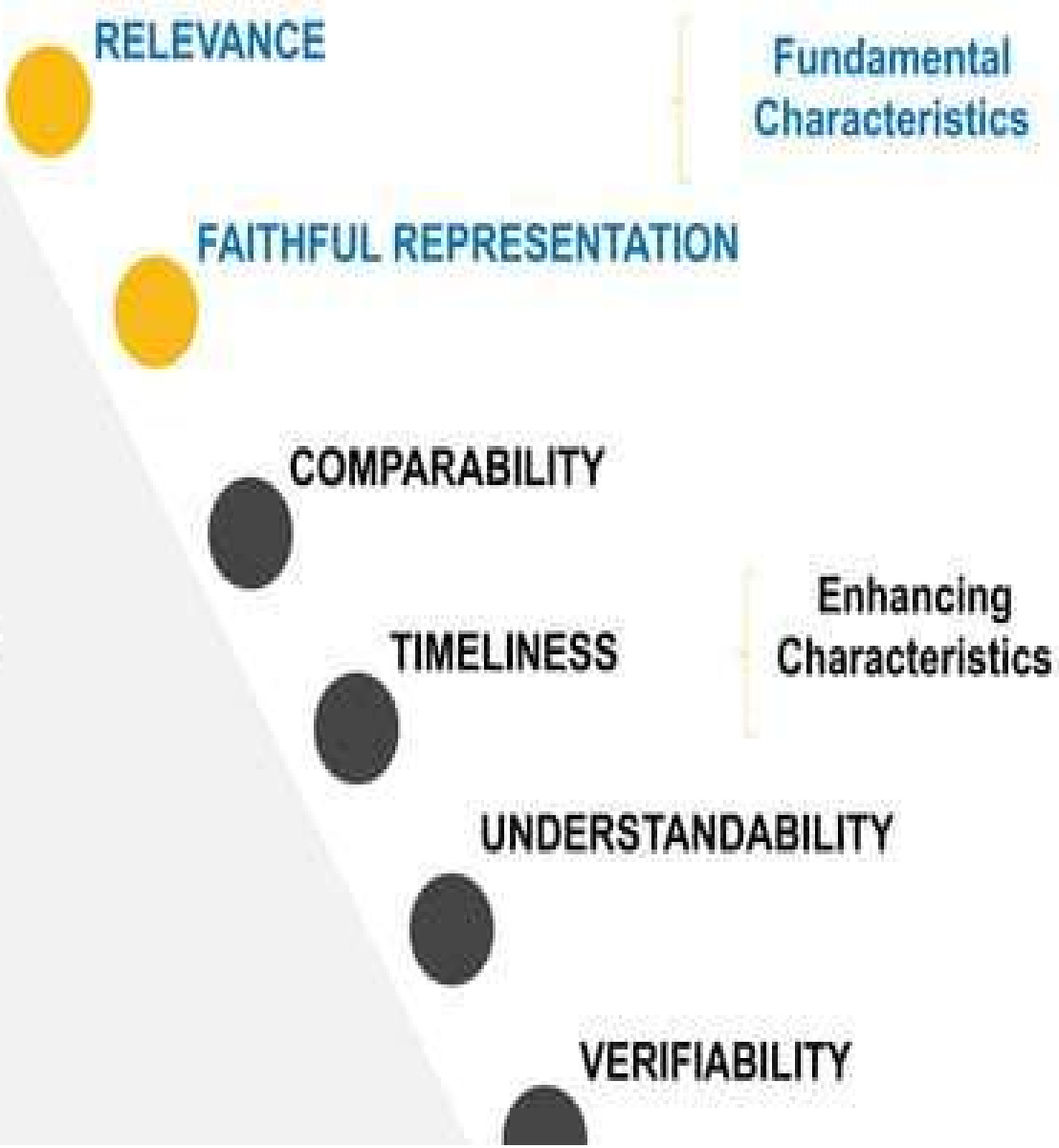
EXTERNAL USERS

E.g. Business analysts & Regulators

Qualitative Characteristics of Accounting Information

- **AIS** is only as valuable as the quality of information it is able to provide.
- The conceptual framework of the IASB (International Accounting Standards Board) prescribes certain criteria for judging the quality of accounting information.

IASB QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION



Read more....

AIS SUB-SYSTEMS

Transaction Processing System (TPS)

General Ledger/ Financial Reporting System (GL/FRS)

Management Reporting System (MRS)

AIS SUB-SYSTEMS: TPS

- Supports daily operations by Capturing and converting economic events into financial transactions for recording in the books of account.
- Handles transactions that are routine by nature.
- Consists of the expenditure cycle, conversion cycle and revenue cycle

AIS SUB-SYSTEMS: GLFRS

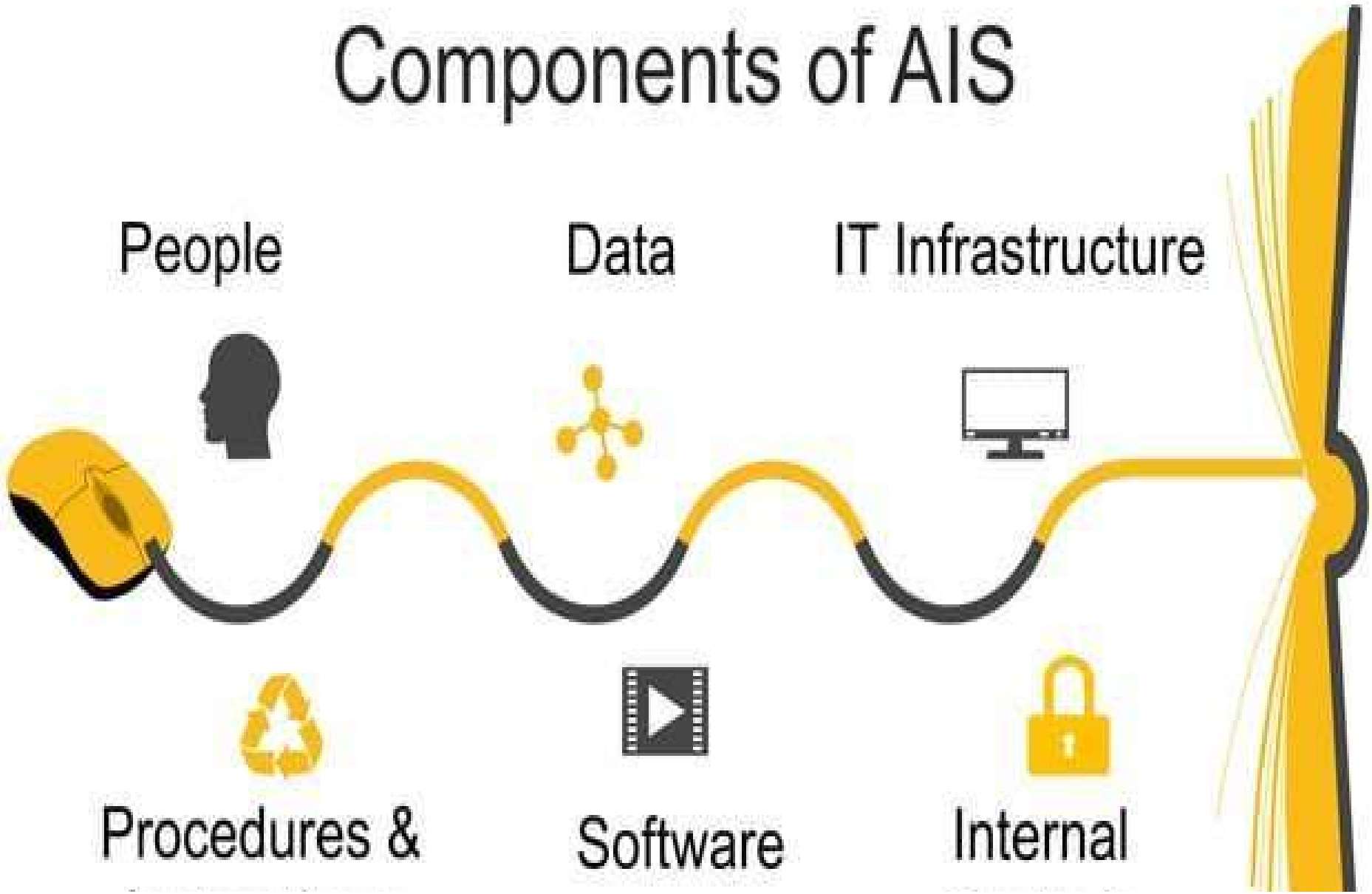
- Receives data input from the TPS and other sources.
- Updates the general ledger, posts adjusting entries and prepares financial statements (income statement, cash flow statement, statement of financial position, Etc.)

AIS SUB-SYSTEMS: MRS

- Generates internal reports to meet reporting and decision making needs of managers.
- Examples of internal reports include budgets, investment analyses, variance analyses, Etc.


02
Components of
AIS

Components of AIS

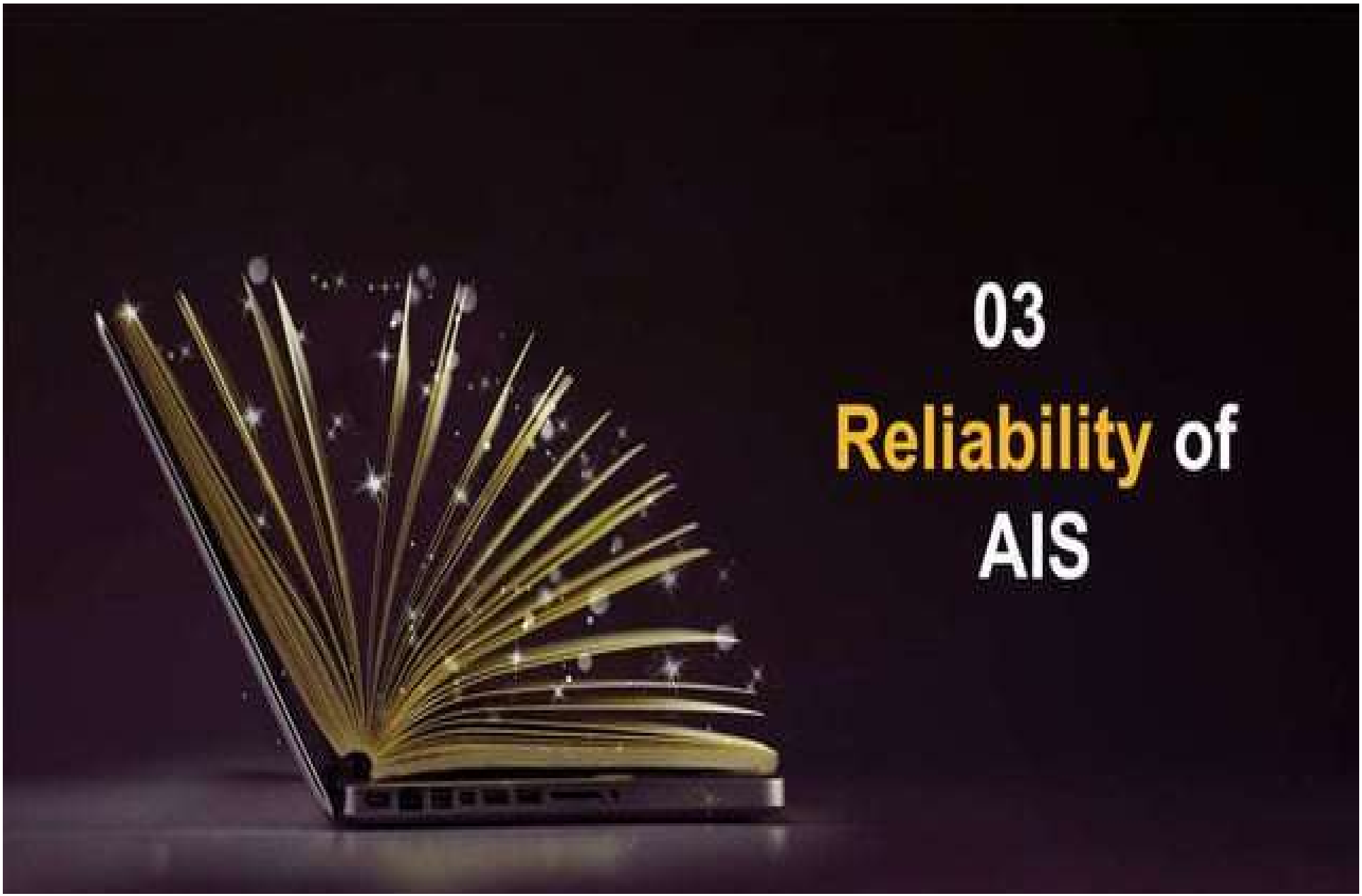


Components of AIS

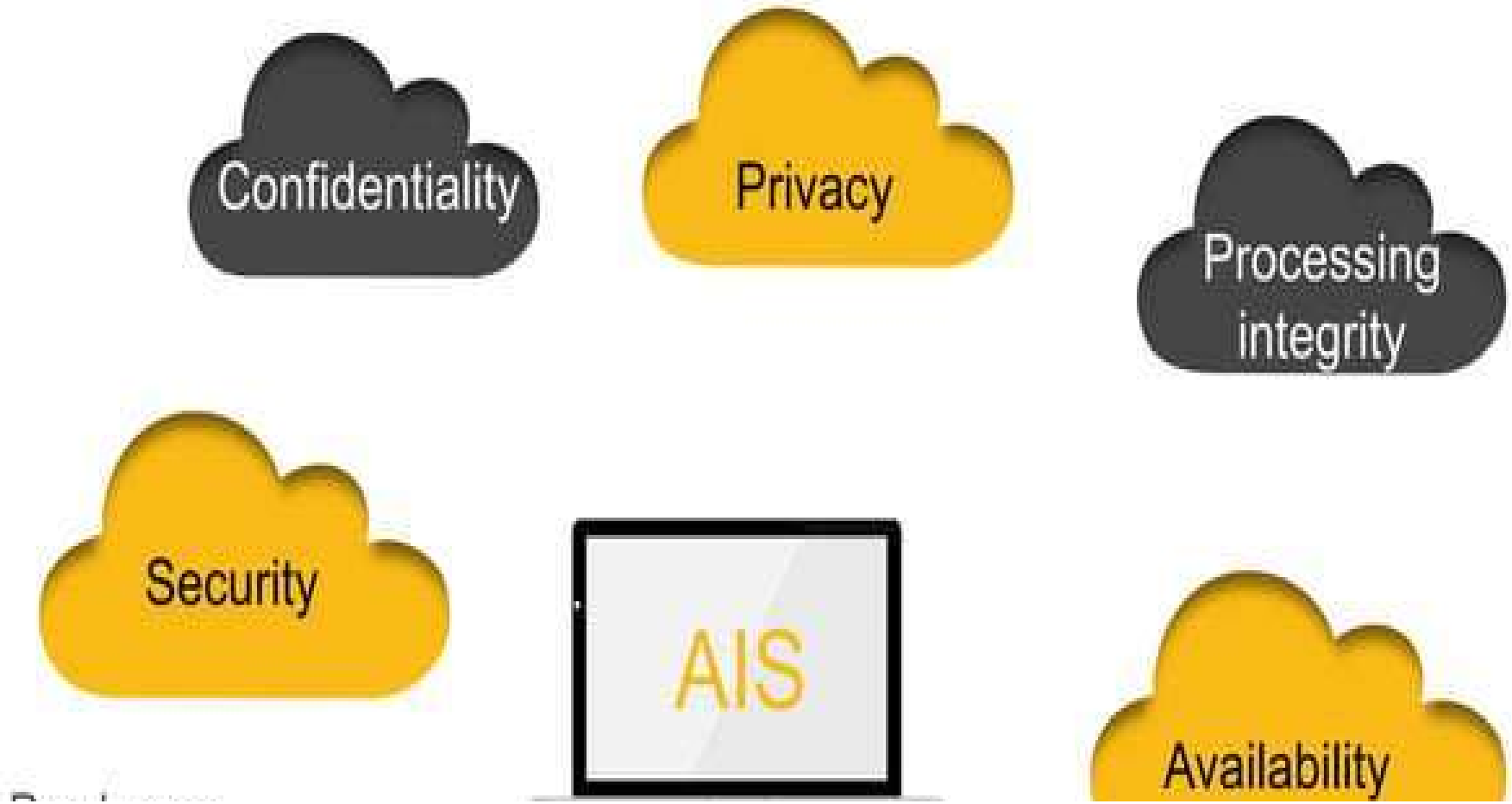
- People: Users of the system such as accountants, managers, analysts, Etc.
- Procedures and Instructions: Processes and methods used to collect, store, process and retrieve data.
- Data: Financial and related non-financial events captured by the system, including their sources and

Components of AIS

- Software: Computer programs deployed to collect, store, process and retrieve data.
- IT Infrastructure: Computer hardware used in conjunction with software to power the AIS.
- Internal Controls: Security measures put in place to protect the integrity of the AIS


03
Reliability of
AIS

Reliability factors of AIS




03
Discussion
Questions
1. What challenges could an organization face in developing its AIS ? How can it go about resolving such issues?
2. What are the salient differences between data and information?
3. What is your preference - manual, computerized or hybrid AIS?

THANK YOU

Accounting Information System (AIS)

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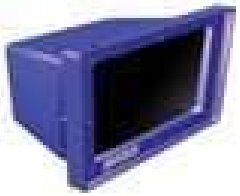
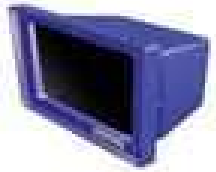


QUALITY

INFORMATION SYSTEMS

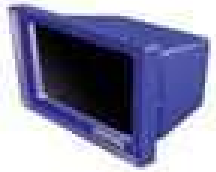
QUALITY
INFORMATION SYSTEMS



Trayectory

- Since the incorporation of our company in 1991, we have been involved in researching and developing applications and systems related to vehicle transit control **based on automatic number-plate reading.**
- As from 1995 we decided to specialise in the design and development of specific computer systems for solving problems connected with the management and/or exploitation of premises in which conventional systems do not permit the computerised and individualised monitoring of the vehicles entering them.

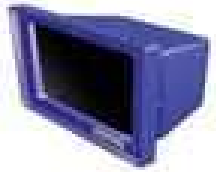
QUALITY
INFORMATION SYSTEMS



Trayectory

- We have been pioneers in this activity and may still be the only Spanish company that owns all the resources and all the necessary technology (optoelectronics, hardware and software) in order to take on and maintain any project with success, without having to depend on other Spanish or foreign companies.
- We currently have available several systems that we have developed. These systems, based on automatic number-plate reading and the treatment of complementary images, offer vehicle transit control solutions that are totally innovative.

QUALITY
INFORMATION SYSTEMS

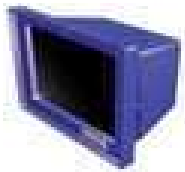


Trayectory

- Our technology is applicable to very diverse problems and casuistry, such as those occurring in public car parks, on private premises, in fleet control, on the public thoroughfare, in mobile units of the Local Police and State Security Corps, etc.. We also take on special or made-to-measure projects, contributing advice, and if the client so desires, “with vacant possession” project delivery.

QUALITY

INFORMATION SYSTEMS



Designed systems, devoloped and made for Quality

- **SCAIL**
  - Capture systems and lighting
- **SCAVE** PARKINGS
  - Public parking car
  - Management parkings deposits of cranes
  - Operation parkings articulated vehicules
- **SCAVE** ACCESOS
  - Access Control
  - Supervision of load processes and unloading in industrial plants
- **SCAVE** VÍA PÚBLICA
  - Solutions of quality for the Public thoroughfare
- **SMIV**
  - Mobile system of identification of vehicles

QUALITY
INFORMATION SYSTEMS

SCAIL® (Sistema de captura e iluminación)

- Compact and specific system for captation of number plates.
- Compact system of camera and infrared lighting, the utilization of an electronics and a microprocessor, provides valid images for the reading matriculation during 24h and even in climatic adverse conditions.
- Its design and way of functioning lengthens considerably the life of the LEDS.

QUALITY
INFORMATION SYSTEMS

SCAVE®

Parking Public

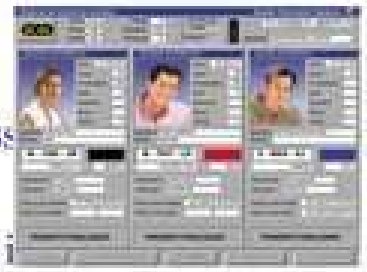
- Only valid procedure of immediate location of vehicles
- Detects the attempt of robbery of vehicles
- Detection of non-coincident wished vehicles
- Detect the different tickets use
- Exact calculation of the amount in case of loss of the Ti[illegible]
- Simple the entrance to users with seat in rented proper[illegible]
- Eliminates the manual control of you spend the night c[illegible] vehicles.
- Registry of incidences.
- Different images from entrance and exit digital video a[illegible] to entrances and exits
- Control of vehicles by enclosures.
- Statistical zones or plants
- System multi terminal intelligent
- Control of vehicles in entrances and exits.

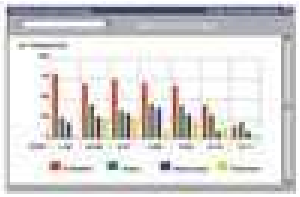
QUALITY
INFORMATION SYSTEMS

SCAVE®

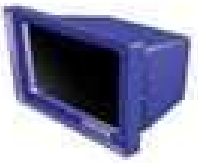
Control of vehicles and its occupants in restricted access

- Technology of artificial vision able to read, to extract and to decipher, in real time the license plates of the vehicles, in movement or not.
- It increases the **safety level** of the enclosure by means of centralized and integrated treatment, with supervision and management of the parameters that intervene in the control of accesses.
- It takes decisions, **executed automatically**, or according to criterion of the operator, depending on the information facilitated by the system.
  - **SCAVE** manages automatically the majority tasks of the control of access detects the presence of the vehicle, reads license plates, identifies it and optionally itcan associate a vehicle with the assigned driver, visualizing i the monitor his or her photography.
  - Information for the **statistics**, historical, bases of information, follow-up and invoicing.
  - Generates information of entrances, permanence and exits of vehicles and people, very useful for the different departments from the organization.





QUALITY
INFORMATION SYSTEMS



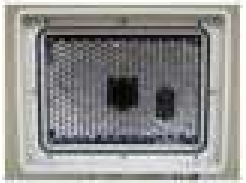
SCAVE®

Public Thoroughfares

- Location in real time of looked vehicles.
- Control of vehicles in restricted or resident areas .
- Management, control and supervision of traffic in Public route.
- Speed control for sections.
- Location of vehicles without assurance tax.
- Statistics.
- Analysis of densities for routes.
- Recommendation of alternative itineraries.
- Management of tolls.


Sistema Móvil
de Identificación de Vehículos
902 300 106
SMIV
4284 DHB

QUALITY
INFORMATION SYSTEMS

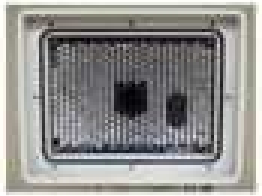


SMIV® Mobile system of identification of vehicles

- High level of efficiency in recognition of matriculations for vehicles parked (horizontal and vertical angle) and in movement.
- System GPS and cartographic advanced system that it allows to arrange on board and in real time of the street and of the number of portal.
- Communications of GSM or GPRS. It allows sending of information based on information remote with contrast and return in real time.
- Applications:
  - Double row
  - Lane bus
  - Control of vehicles in restricted areas or residents
  - Location of vehicles in real time
  - Police controls.
  - Control of vehicles without assurance.

QUALITY

INFORMATION SYSTEMS

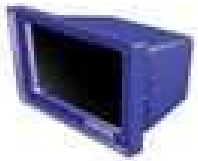


Advantages

- Compact devices of capture integrating illumination, camera of reading and adjustable camera of complementary image in color automatically.
- Equipped with two devices of capture that allows to the reading the vehicles parked in both sides of the street.
- Very advanced and optimized reader of matriculations for the special difficulty of the Spanish plates.
- In order to diminish the concealment of the license plate of the parked vehicles, we have developed a software able to work the complicated angles specifically horizontal and vertical.
- Cartography in real time allowing that all the process of denunciations is completed and validates on board of the vehicle, allowing if it is desired, the impression and the notification of the denunciation in situ.
- System of communication in real time with remote data base.
- CTRS electronic development that stabilizes and supervises the good operation of all the devices
- Quality is owner of all technologies uses.

QUALITY

INFORMATION SYSTEMS

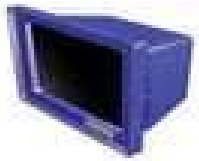


More than 1500 points installed

Presidencia del Gobierno. Madrid
Sede de Hacienda. Excma. Diputación de Guipúzcoa
Presidencia de la Comunidad de Madrid
Nuevos Ministerios
Red Eléctrica de España.
Endesa. Sede Social.
Puerto de Bilbao
Puerto de Santander
Puerto Sta. Cruz de Tenerife
Puerto de Vigo
CINTRA
SABA
RENFE

QUALITY

INFORMATION SYSTEMS



Fira de Barcelona
Indra .Sede Social
Torre Picasso. Madrid
Hospital Val'l d'Hebron. Barcelona
El Corte Inglés (70centros)
Seur
Siemens Sede Social
Sanitas
Telefónica
Aena (15 aeropuertos)
DGT
ABERTIS
Excm. Ayuntamiento de Barcelona
Excm. Ayuntamiento de Bilbao.
Excm. Ayuntamiento de Madrid
Excm. Ayuntamiento de Málaga
Excm. Ayuntamiento de Pamplona
Excm. Ayuntamiento de Valencia
Excm. Ayuntamiento de Vigo

QUALITY

INFORMATION SYSTEMS

PARKING PUBLIC

Aparcamiento AURISE. Barcelona.
Aparcamiento 1 Zona Franca. Cádiz.
Aparcamiento 2 Zona Franca. Cádiz.
Aparcamiento de Renfe. Nueva estación del AVE en Zaragoza.
Aparcamiento Excmo. Ayuntamiento de Gavá (Barcelona)
Aparcamiento Colón en Valencia.
Aparcamiento Fernán González en Madrid.
Aparcamiento Marqués de Urquijo en Madrid.
Aparcamiento Pza. Marqués de Salamanca en Madrid.
Aparcamiento Pza. Mayor en Madrid.
Aparcamiento Pza. Las Cortes en Madrid.
Aparcamiento Pº Recoletos en Madrid.
Aparcamiento Rambla Nova en Barcelona.
Aparcamiento Sagrat Cor en Barcelona.
Aparcamiento Hotel Melia en Alicante.
Aparcamiento Hotel Mirasierra en Madrid.
Aparcamiento Pza. Pombo. Santander
Aparcamientos C. Comerciales El Corte Inglés e Hipercor (60 centros)
Aparcamiento en Plaza de España de Valladolid

QUALITY

INFORMATION SYSTEMS

Aparcamiento en Plaza Mayor de Valladolid
Aparcamiento en Plaza Zorrilla de Valladolid
Aparcamiento Sierra Nevada
Centro Comercial Sexta Avenida
Aparcamiento Estación Chamartin
Aparcamiento Julián Camarillo
Guardia Civil. Aeropuerto de Barcelona.
Policia Nacional. Aeropuerto de Barcelona
AENA. Aparcamiento del Aeropuerto de México
AENA. Aparcamiento del Aeropuerto de Lanzarote.
AENA. Aparcamiento del Aeropuerto de Palma de Mallorca.
AENA. Aparcamiento del Aeropuerto de Fuerteventura.
AENA. Aparcamiento del Aeropuerto de Sevilla.
AENA. Aparcamiento del Aeropuerto de Ibiza.
AENA. Aparcamiento del Aeropuerto de Barcelona.
AENA. Aparcamiento del Aeropuerto de Málaga.
AENA. Aparcamiento del Aeropuerto de Bilbao.
AENA. Aparcamiento del Aeropuerto de Menorca
AENA. Aparcamiento del Aeropuerto de Tenerife Sur.
AENA. Aparcamiento del Aeropuerto de Alicante.

Principales clientes