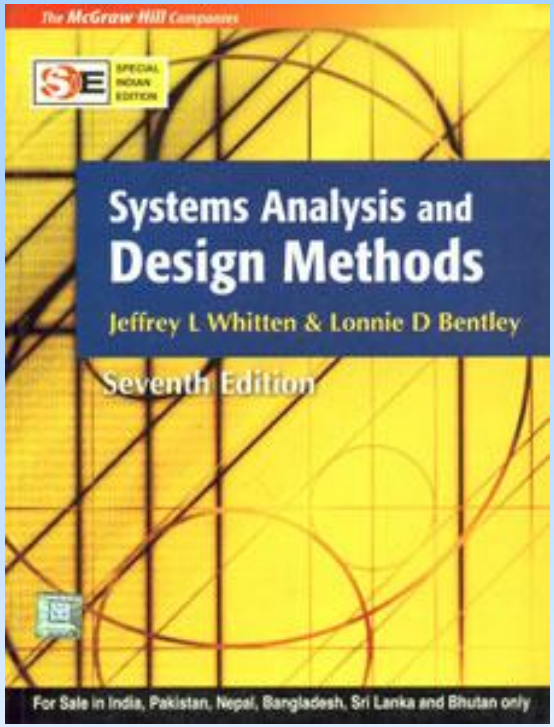
# BIT-Semester 2
# IT 2405

# Systems Analysis and Design
# Chapter 1

# References

**Ref** : System Analysis and DESIGN METHODS

**By** Jeffrey L Whitten & Lonnie D Bentley ISBN 0-07-063417-3 (7th Edition)




**Recommended Links**

http://www.mhhe.com/whitten

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# Introduction to Information System Environment

- What is an information system?
- Types of Information Systems and processing types
- Architecture based classification of Information Systems
- Processing types

# Information Systems

## Applications

- Earlier applications

Airline Reservations

Keeping records of transactions

Keeping records of Stock

# Information Systems

## Introduction

- Computers are now becoming part of virtually every activity in an organization

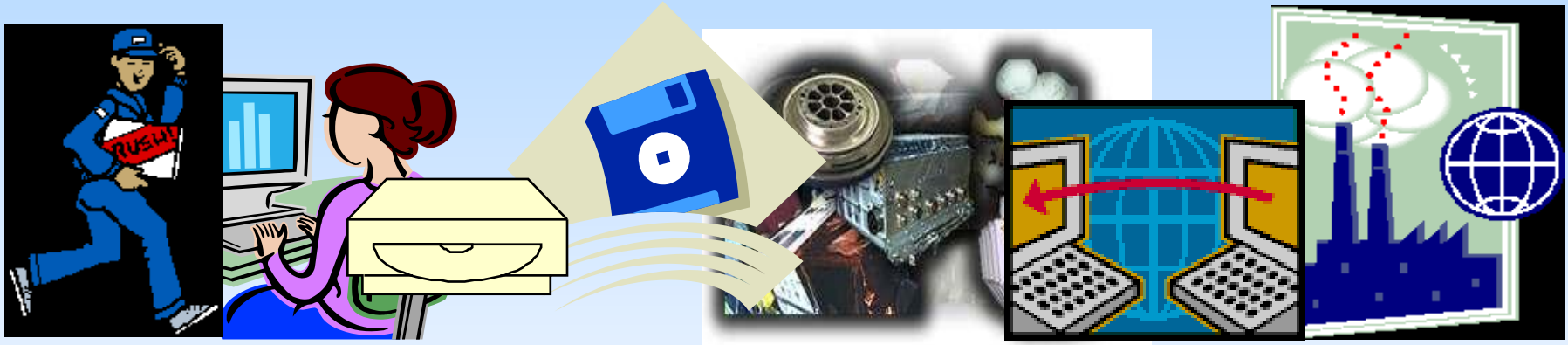
Production

HRM - Training


Telephone Integration

# Information System

- An arrangement of




- To support and Improve day to day operations
- problem solving and decision making needs of management and users

# Information System

Information and  Communication Technology

- A combination of



Computer Technology

Telecommunication Technology

# Information Systems

The Players - ***System Stakeholders***

- any person who has an interest in an existing or proposed information system.
- Can be classified into five broader categories
- may include both
  - technical and non-technical workers
  - Internal and External workers

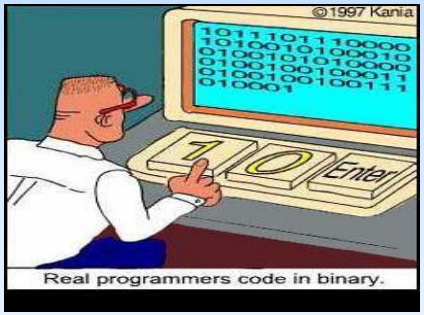
# Information Systems

## System stakeholders

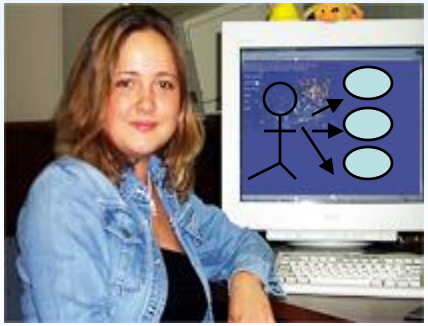
- can be classified into five groups

System User

System Owner




System Builders

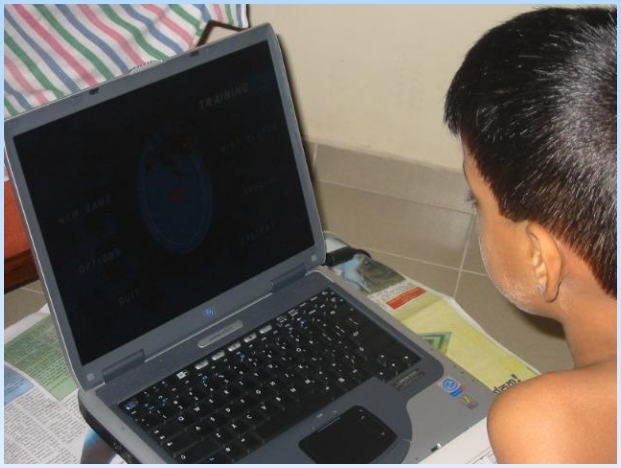


System Designer


System Analysts

# Information Systems

- Stakeholders cont..



a “customer” who will use or is affected by an information system on a regular basis – capturing, validating, entering, responding to, storing, and exchanging data and information.

**System Users or Clients**

# Information Systems

- Stakeholders cont..

**System Owner**

- An information system's sponsor and advocate
- Owns the system
- Set the vision and priorities
- Determine the policies
- Responsible for funding the project of
  - Developing
  - Operating
  - Maintaining

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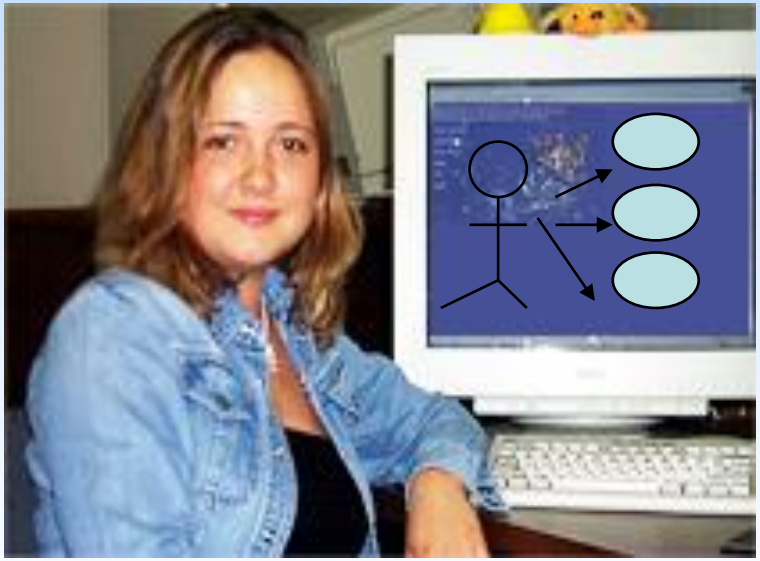
# Information Systems

- Stakeholders cont..



System Designer

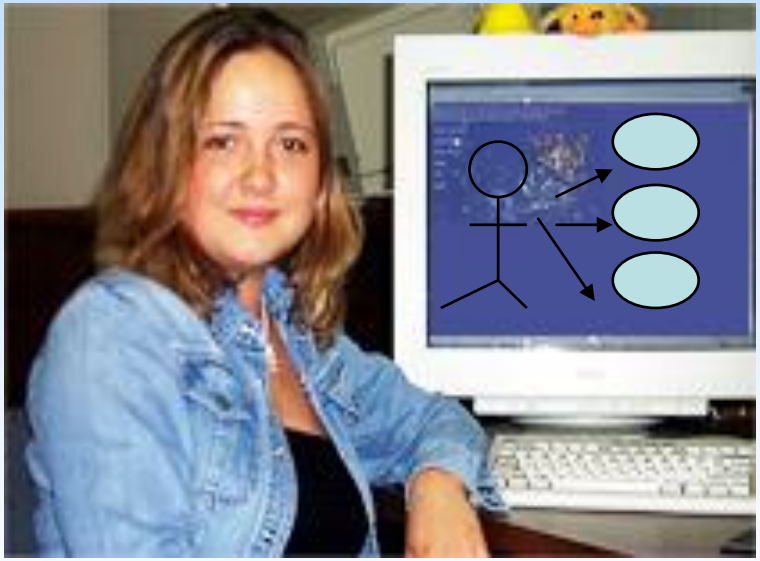
➢technical specialists

➢Translates system users' business requirements and constraints into technical solutions.

➢Design the system (data-bases, inputs, outputs, screens, network, software) to meet the users requirements

# Information Systems

- Stakeholders cont..

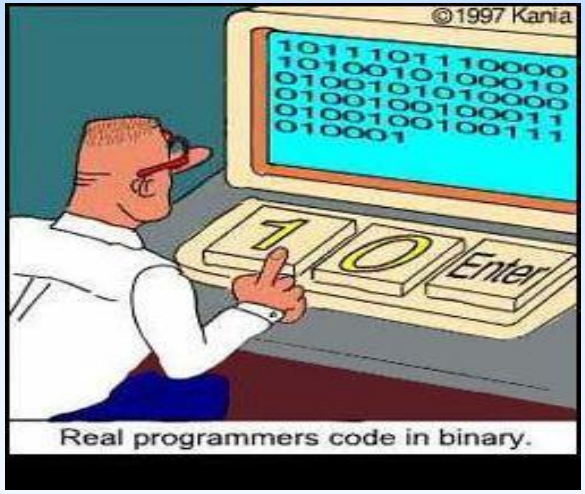


**System Designer**

➢Design the computer files, databases, inputs, outputs, screens, networks, and programs that will meet the system users requirements.

# Information Systems

- Stakeholders cont..




**System Builders**

Construct, test and deliver the Information System based on the design specifications generated by the system designer.

# Information Systems

- Stakeholders cont..


**Systems Analysts**

People who understand both business and computing.

# Information Systems

- Stakeholders cont..


**Systems Analysts**

➢Studies the problems and needs of an organization

➢Determine how people, data, processes, and information technology can best accomplish improvements for the business

➢Bridge the communication gap that exists between non technical and technical people involved with building systems.

# Information Systems

- Stakeholders cont..


**Systems Analysts**

**What does a systems analyst do?**

- Identify the problem
- Analyze and understand the problem
- Identify the solution requirements
- Identify alternative solutions
- Design and implement the best solution
- Evaluate the result

# Information Systems

**Legacy systems**

- an existing computer system or application program
- continues to be used because the user does not want to replace or redesign it
- an "antiquated" systems.
- Ref : http://en.wikipedia.org/wiki/Legacy_system

# Information Systems

## **Legacy systems** cont…

- potentially problematic

– often run on obsolete (and usually slow) hardware

– spare parts for such computers become increasingly difficult to obtain

– hard to maintain, improve, and expand because there is a general lack of understanding of the system

– The designers of the system may have left the organization, leaving no one left to explain how it works

– Integration with newer systems may also be difficult because new software may use completely different technologies.

# Information Systems

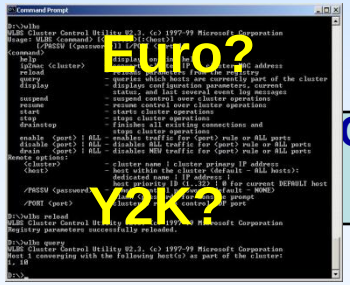
## **Legacy systems** cont…

**Support old business requirements**

**Support new business requirements**

**Old technology**

**Old standard**




**Converted to satisfy new environments**


**New standard**

**New technology**

**New functionality**

**Old system**

**New system**

# Information Systems

## **Legacy systems** cont…

- Many complex legacy systems yet to be upgraded to new technologies because of
  - Cost,
  - Skills and
  - People required
- Force to change – to reflect new or changing business requirements.
  - Year 2000 problem (Y2K)
  - Euro conversion

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# Information Systems

**Legacy systems** cont.

**Y2K problem**

- **Many computers and applications stored date with only 2 digits. (e.g. 99 =1999)**
- **Problems : when the millennium changed (e.g. 03=2003)**

**Born in 1978**
**Age? -74, 0, 74**