Management Information System & IT Trends (MNSYSIT)
Week One

Introduction

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Objectives

- To be acquainted with the course outline, requirements and house rules

- Describe the components of Information Systems (IS) in business

- Explain why IS is necessary in business

- Describe the role of IS in business functions

Introduction

- **Course Requirements**
  - Course syllabus
  - Text book and references
  - Case studies, long quizzes, term project, final exam
  - Class participation

- **Course Requirements**
  - OneNote Class Notebook
    - **MNSYSIT MI141**
    - Check regularly; at least after each class
  - Academic Integrity
    - Cite references following APA standard
    - Avoid 'copy-paste' of materials

Introduction

- **Grading System**
  - Class Participation   10%
  - Long Quizzes   20%
  - Case Studies   20%
  - Final Exam   25%
  - Project   25%

  Total   **100%**

  Passing Mark   **70%**

Introduction

- **Course assessment**
  - Complete the assigned readings
  - Long quizzes, term project, final exam
  - Attend classes and participate in discussions
  - Complete all case analysis and submit reports on time
  - Contribute positively in assigned group work

Introduction

- **House Rules**
  - Punctuality and attendance
  - Restroom breaks
  - Days & venues:
    Tuesday (314) & Friday (816)
  - Time:
    7:30am – 9:30am

- **House Rules**
  - English zone
    no code-switching

  - Mobile phones, tablets, computers, etc.
    not allowed during class, unless specified

  - Seating arrangement

Introduction

- **House Rules -** *Proper use of resources & facilities*
  - Use computers for purposes relating to study and/or research only.
  - Keep your area neat at all times.
  - Handle equipment with care.
  - Avoid disconnecting cables, peripherals, etc.

Introduction

- **House Rules -** *Proper use of resources & facilities*
  - Log-out of websites or accounts opened.
  - Shut down computers before leaving.
  - Do not change the system settings of computers.
  - Do not download and install software without the permission of ITRO.

Expectations?

Subject Overview

Purpose of the course is to make students prudent consumers of information and IT services

Reference:
Oz, E. (2011). *Principles of Management Information Systems*. *Philippine Edition*. Cengage
    Learning Asia Pte.

Purpose of Information Systems

- Businesses use information systems to
  - make sound decisions
  - solve problems
- *Problem* - any undesirable situation
- *Decision* - arises when more than one solution to a problem exists

Purpose of Information Systems

- Problem solving and decision making require INFORMATION

- Information systems (IS)

  – aid in problem solving and decision making

  – support daily operations

Why should you be well-versed on information systems?

- *Data* - a given or fact (number, statement, picture)

- *Information* - facts or conclusions that have meaning or context

- *Process* - manipulation of data with the goal of producing information or additional data

Information

Input ⟩ Process ⟩ Output

Information

- Characteristics of useful information
  - Relevant
  - Complete
  - Accurate
  - Current
  - Obtained in a cost-effective manner

Systems and Subsystems

- System
  - array of components that work together to achieve goals
  - accepts input, process it, produce output (in an organized manner)

Systems and Subsystems

- *Subsystems* - components of a larger system
- *Closed System* - stands alone, no connection to another system
- *Open System* - interfaces and interacts with other systems

Information Systems

- Consists of components that work together to process data and produce information
- Automate information exchange between subsystems

Information & Managers

- *Systems thinking* - thinking of an organization in terms of its subsystems

  - creates a framework for problem solving and decision making

  - helps managers focus on overall goals

Information & Managers

- *Information map* - description of data and information flow within an organization

- *Information technology* - technologies that facilitate construction and maintenance of information systems
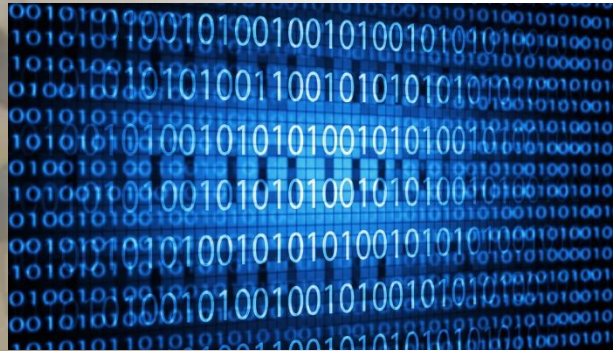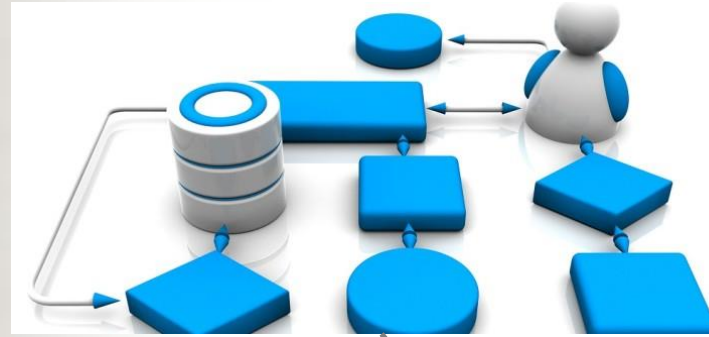
Human-Computer Synergy

- Humans can think, make decisions, accumulate expertise
- Computers can perform programmed operations rapidly and accurately

- Consist of **data**, **hardware**, **software**, **telecommunications**, **people**, and **procedures**
- Computer-based IS has one or more computers at center

Information Systems

- IS important in business
  - Growing power and decreasing cost of computers
  - Growing capacity and decreasing costs of data storage devices
  - Increasing variety and ingenuity of computer programs

- IS important in business
  - Available, reliable, affordable, and fast communications links to the Internet
  - Growth of the Internet
  - Increasing computer literacy of the workforce

Four Stages of Processing

- Input

- Data Processing

- Output

- Storage

Computer Equipment for IS

- **Input** devices, **computers**, **output** devices, **storage** devices
- **Networking** devices and **communication** lines
- **Telecommunications**

Management Information Systems

- System that supports
  - planning
  - control
  - making decisions

- **Transaction processing system** - system that records data collected at point where organization transacts business with other parties

- **Supply chain management system** - also known as enterprise resource planning system

- **Customer relationship management system** - system for managing relations with customers

- **Business intelligence system** - system that glean relationships and trends from raw data to help organization compete

- **Decision support systems** - systems that support decision making

- **Expert systems** - systems that support knowledge-intensive decision making

- **Geographic information system** - system that ties data to physical locations

JEOPARDY! The IBM Challenge

On February 14, 2011, IBM Watson changed history, introducing a system that rivaled a human's ability to answer questions posed in natural language with speed, accuracy, and confidence.

- Watson Wins!
- Largest Jeopardy! in 5 years
  - 34.5M Jeopardy! Viewers
  - 1.3B+ Impressions
- Over 10,000 Media Stories
- 11,000 attend watch events
- 2.5M+ Videos Views (top 10 only) You Tube
- 12,582 Twitter
- 25,763 Facebook Fans
- Most recently: Emmy Award for Watson show of Jeopardy!

February 2011 Watson beats Jeopardy Champions Ken Jennings and Brad Rutter

What Watson does:

Interprets and understands language, in context

Understands ambiguous and imprecise questions using sophisticated natural language algorithms

Analyzes large volumes of data

Can handle large amounts of unstructured data

Generates and evaluates hypotheses and quantifies confidence in answers

Identifies many answers to questions with evidence to "explain" rationale for answers

Adapts and learns to improve results over time

Learns from additional evidence, additional questions and mistakes to improve accuracy over time

Reference: IBM Philippines, 2012

IS in Business Functions

- Accounting

- Finance

- Marketing

- Human resource management

- E-commerce

- Network administrator, system administrator, system analyst, software engineer, data communications analyst, database administrator, Help Desk technician, Webmaster
- Chief Security Officer, Chief Information Officer, Chief Technology Officer

Ethical & Societal Issues

- Consumer Privacy

- Employee Privacy

- Freedom of Speech

- Online Annoyances

- Phishing and Identity Theft

- IT Professionalism