IS223 Midterm Study Guide

IS1: Managing in a Digital Work (Pages 1-50)

- "**post-PC era**"?
  - Where wireless mobile devisees allow for novel ways of interacting with information systems
- Challenges of operating in the digital world.
  - Opportunities:
    - Reaching new markets
    - Decrease in communications costs, companies can draw on a large pool of communication skills around the world
  - Challenges (details on page 17)
    - Governmental
    - Geoeconomical
    - Cultural challenges
- Describe how computer ethics impact the use of information systems, and discuss the ethical concerns associated with information privacy and intellectual property
- Potenail cost sna

Knowledge society= digital world: coined by Peter Drucker to refer to professionals who are relatively well educated and who create, modify, and or synthesize knowledge as s fundamental part of their jobs

- possessing knowledge is more important that land or capital
- knowledge economy, new economy, digial world = book calls it digital world

knowledge worker:

- paid better,
- rely on and are empowered by formal education
- make up a quarter of the work force

E-commerce: the use of nearly any information technologies or systems to support every part of the business

BYOD (bring your own device): employees using their won devices for work-related purposes

5IT Megatrends:

1. **Mobile**
   - Primary means of accessing the internet
   - Business have to create mobile friendly versions of their website
   - Mobile app of a app
   - Jump to mobile in developing countries, avoiding expensive infrastructure
   - Implications:

- **Processing**: Converts raw input into a meaningful form
    - Ex. when we log in banners are for undergrad
    - Takes inputs and provides certain information based off that
- **Output**: transfers the processed information to the people who will use it or to the activities for which it will be used
    - Ex. recite from credit card account after amazon purchase
    - Ex. Student link, output that there is confirmation that you applied for the job
- **Feedback**: output that is returned to appropriate members of the organization to help them evaluate or correct the input stage

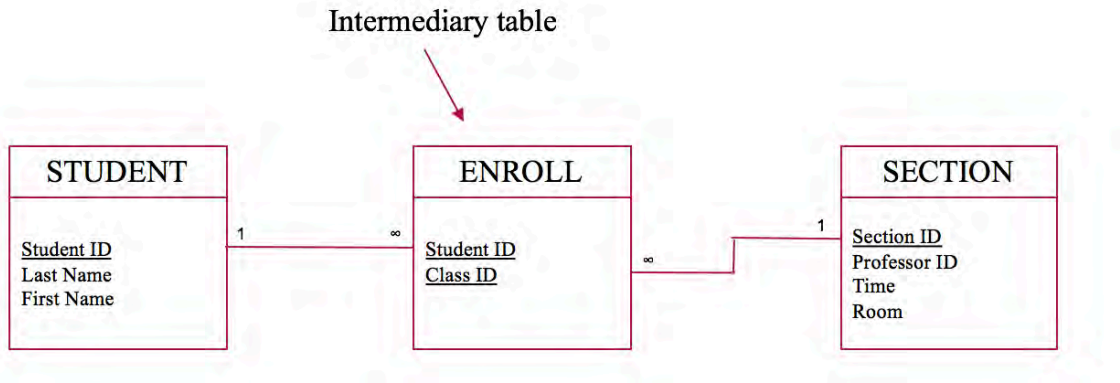
Example: System from selling tickets

- **Inputs=** order data for tickets (purchasers name, address, credit card number, ticket price) data is stored and processed
- **Processing**: to calculate order totals, track ticket purchases, send requests to credit card companies
- **Outputs**: consists of tickets to print out, recites from orders, reports on online ticket orders

Dimensions of an of information systems:

- Organizations:
    - People, structure, business process, politics and culture
    - Knowledge workers: engineers, design products or services
    - **Data workers**: assist with scheduling and communication throughout firm
    - **Business process**: logically related tasks and behaviors for accomplishing work. Ex. developing a new product, fulfilling an order
- Management:
    - Make decisions, formulate actionable plans and solve organizational problems
    - They set organizational strategy, and allocation human and financial resource
    - Create work driven by new knowledge and information
- Information technology
    - Managers use to cope with change
    - **Computer hardware**: is the physical equipment used to input, processing and output activities
    - **Computer Software**: consists of detailed preprogrammed instructions that control and coordinate the computer hardware components in that information system
    - **Data management technology**: consists of the software governing the organization of data on physical storage or media
    - **Network and telecommunications technology**: consists of both physical devices and software, links the various pieces of hardware and transfers data from one physical location to another.
        - **A network,** links to or more computers to share data or resources as a printer

- Entities become tables
- Entity's attributes become table columns
- Add Foreign Keys (create table columns for foreign keys)
- Create intermediary tables for many-to-many-relationships



data normalization:

- Designing how data is stored to reduce data integrity problems
- Limiting data redundancy

Normalization: is the process of converting a poorly structured table into two or more well structured tables.

- eliminate data duplication and limit a table to one theme

Objectives:

- How do data models facilitate database design?
- How is a data model transformed into a database design?
- What are cardinalities?
- What is normalization?
- Reading ERD diagrams and relationships.
- Applying database design to new problems

Class: IS10 Database IV Applying ERD Skills and Database Queries, Forms & Reports (Pages 163 to 171 Look at http://www.gcflearnfree.org/access2013/)

Intramural League

- Team => checkout => equipment
  - = issues, system allocates equipment to teams but not to the coachs who are responsible for the equipment
- Solution:
  - Team season => checkout => equipment
- Second issues: coach serves as coach for more than one season
  - Solution = remove coach from season
  - **Coach => Team season => checkout => equipment**

Form View: Allows you to read, enter and edit records. Use this view when you are working with the data. You cannot modify a form's design in form view

- ex. amazon web services, customer can choose cloud computer power, memory, operation system and storage based on needs
- Can build infrastructure on the cloud
- Customer and set up cost are relatively high = still need programers to control it
- Ex. you can use my machine to store data but you are still in control of data

PaaS

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  You Manage: Applications & Data
  Company Manages: Runtime, Middleware, O/S, Virtualization, Servers, Storage and Networking
-
- Control over the applications but has limited to no control over the underlying infrastructure
- You can use storage
- Fairly rich environment where you can quickly deliver
- Services provided that help you un business
- You allowed some creativity as user
- Don't have to purchase software licenses
- Ex. Operation systems, web servers, database managments systems, programing language
- Ex, Azure, which customer can use to deploy custom applications

SaaS

- Pay subscription and you use their product on their environment to meet their need
- Cant do any scripting unique programing
- Ex. webbased email services, web-based productivity sites (Zoho, and google docs), but also advance applications such as CRM systems provided by salesforce.com
- No control over underlying infrastructure or configuring application specific settings
- Easiest to deploy, customers don't have to worry about maintaining or updating the software