ISM 50 - Business Information Systems
Lecture 2

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Student talks

Exams
- Midterm
  - Probably 10/28
- Final
  - 12/6
- Closed book
- A mix of short answers and 1 or 2 essays
- One or two analytical questions

EXAMS and Quizes

Pop Quizzes
- 3 quizzes, unannounced times
- Simple questions pertaining to the reading assigned for that day
- Only your top 2 quizzes will count
- 5% of your overall grade

Participation
Participation

- We will have a lot of classroom discussion over the course of the quarter.
  - especially when we read case studies!
- This is an opportunity for you to
  - think through ideas.
  - give feedback.
  - learn from your classmates.
- We will evaluate your participation.

Classroom Participation

- You earn 1 participation point in each class session in which you make an intelligent comment.
  - Participating more than once in a class session is encouraged, but does not earn more points.
- For full participation credit, you need to earn 8 participation points over the quarter.

Online Forum Participation

- Alternate way of earning participation points
- 1 point for each intelligent post to a discussion thread.
- Discussion forum should begin operating next week!

Participation

- In Summary...
  - You need 8 participation points to get full credit.
- Participation is 10% of your overall grade.

Presentation/Folio

You will be assigned either

- Presentation
- News Folio
**Oral Presentations**

- 5 minutes in length
- **Assigned** to present one of the following:
  - Summary of the case study we will discuss in class that day.
  - Recent news story involving business and information systems.
  - Your group’s business paper project
- PowerPoint Presentation.
  - E-mailed to me by the night before

**Assignments**

**Database Assignment**

- Learn and Use database software
- An opportunity for "hands-on" experience without having to use advanced programming.
- Assignment will be done individually
- We will give you the details of the assignment sometime after the midterm.
- Database Tutorial later in the quarter
- 10% of your grade

**Weekly Assignments**

- Approximately once every week or two.
- They will be posted on the class webpage in the assignments column of the syllabus.
- Usually,
  - Questions from the textbook
  - Questions pertaining to Case Study Readings.
- However, Assignment 1 is to make a resume and cover letter!

**Where are we, and how did we get here?**

- Let’s survey the history of IT over the past few decades!

**The History of IT from 1960-2000**

**IT Mgmt from 1960-2000**

- The author (Nolan) breaks down history into 3 eras
  - Data Processing Era
  - Micro Era
  - Network Era
- A logical division, but not universal
  - Messerschmitt divides into 4 phases
    - Centralized, Time shared, de-centralized, networked
The Data Processing Era (1960-1980)

- By 1960 economy dominated by large, multi-divisional, hierarchical businesses
  - Corporate Office
  - Divisional operating units in different markets
  - Example: GE
    - Corporate office in Connecticut
    - Lighting in Cleveland
    - Locomotives in Erie
    - ...
  - Within each division many "functional departments"
    - Accounting, Finance, Engineering, etc.

The Data Processing (DP) Era (1960-1980)

- Meanwhile computers were developed for scientific and defense purposes

The Data Processing (DP) Era (1960-1980)

- These large companies purchased mainframe computers
  - to manage the data processing.
  - They were slow, enormous, and expensive, by today's standards.
  - But, they did make it possible to process the enormous volume of data, and transactions in a huge corporation

DP Era (1960-1980)

- Commercial computing evolved...
- 1954 -- IBM 650 dominates commercial market
  - Leased for $3,250 per month (over $22,000 per month in today's dollars!)

IBM 360

- 1964 - IBM 360.
  - Interoperable peripheral and computer family
  - Great improvement over previous generation
  - A massive development effort by IBM
  - Ensured IBMs dominance in the 60s and 70s
**Data Processing Era (1960-1980)**
- "You never got fired for buying IBM."
- Average market share of 68% in the 70s.

**Meanwhile**
- Digital introduces the mini-computer (1960s)
- UNIX operating system developed (1969)
- Bob Metcalfe invents Ethernet (1973)

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**DP Era (1960-1980)**
- **Technology Evolution**
  - First - Stand Alone Mainframes
  - Next - Dumb terminals attached to mainframe
  - ("Time-Shared" Phase in Messerschmitt's terminology)

**Data Processing Era (1960-1980)**
- The information resource manager was known as the Data Processing (DP) manager.
  - Charged with supporting the business
  - Not with changing how the business was run

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**DP Era (1960-1980)**
- IS evolved from supporting lower functions to higher level functions
  - Low: Inventory, Purchasing, Scheduling
  - Medium: Productions Operations Management
  - High: Corporate wide planning

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**DP Era (1960-1980) -- Annual Budgeting**
- Budgeting was an important function made easier by computers
- Accounting of
  - Revenues, Expenditures, Assets, Liabilities
  - Generate Profit and Loss Statement
- **Before computers**
  - Was difficult to do once a year
- **After computers**,  
  - Could "close the books" more often
  - Could break down profits and losses to each level of the corporate hierarchy

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**Capital Budgeting**
- Analyze return and risk of expenditures intended to generate revenue over multiple accounting periods
  - Examples: New building, or factory
- **Before computer**
  - Calculations could become complicated
- **After computer**
  - Very easy
  - Consequence: Every level of the organization could be held accountable for their ROI
Budgeting
Better budgeting and resulting accountability lead to consistent earnings growth.

Build up to Micro Era
- 1974 - Xerox PARC develops first computer with a mouse. They don’t commercialize it!
- 1974 - Altair PC for hobbyists
- 1975 - Bill Gates and Paul Allen Found Microsoft

Build up to the Micro Era
- 1977 - Apple introduces a successful microcomputer

- 1981 - IBM introduces its PC!
  - Intel develops CPU
  - Microsoft develops operating system
- IBM PCs were slowly adopted by the commercial market.