ISM 50 - Business Information Systems

Lecture 2

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September 28, 2010
Student talks
EXAMS and Quizes
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
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.
ORAL PRESENTATION
and
NEWS FOLIOS
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)

- Needed to keep track of massive amounts of data for
  - Payroll
  - Payments to customers and suppliers,
  - 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)
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
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
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
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.

Source: A Nation Transformed by Information, Oxford University Press, 2000
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 rapidly adopted by the commercial market.