ISM 50 - Business Information Systems

Introduction

Instructor: John Musacchio
UC Santa Cruz
9/24/2009

ISM 50 - Course Parameters:
- Tuesdays and Thursdays 10-11
- Baskin 152
- WEB PAGE:
  - (write this down, go home, and bookmark it!)
  - http://www.soe.ucsc.edu/classes/ism050/Fall09

Instructor:
John Musacchio
Office: E2 557
johnm@soe.ucsc.edu
- TBA

ISM 50

TA
- Sig Myers
  - sig@soe.ucsc.edu
  - Office Hours:
    - TBA

What is this class about?

- Supply Chain Management (SCM)

More Examples

- Customer Relationship Management (CRM)
- Other examples?

Business Process Example

Customer

Order

Take Order

Enter Order

Credit Check

Check Stock

Print Packing list

Find Goods

Ship

Tell Mfg. to make Stock

Print Invoice

Finance

Sales

Inventory Control

Warehousing
A Streamlined Business Process

Customer
- Sales
- Finance
- Inventory Control
- Warehousing

Order
- Take Order
- Enter Order
- Print Invoice
- Print Packing List
- Find Goods
- Ship

Automatic Credit Check

Business Functions

A Reengineered Business Process

Customer
- Order
- Sales
- Finance
- Inventory Control
- Warehousing

Order
- On web
- Automatic Credit Check
- Automatic Checking of Stock

Print Packing List
- Find Goods
- Ship

Inform Mfg. to replenish stock

Some Examples

- Supply Chain Management
- Customer relationship Management
- Inventory Control
- Transaction Processing
- ...
Why is IT changing so fast?

??

What’s happening lately?

- Net Neutrality, What is it?

FCC chair Julius Genachowski

Internet access providers “must be transparent about their network management practices,”

- “We could see the Internet’s doors shut to entrepreneurs, the spirit of innovation stifled. Or we could take steps to preserve Internet openness.”

Senator Kay Bailey Hutchison (R) TX:

“The case has simply not been made for what amounts to a significant regulatory intervention into a vibrant marketplace.”

NPR, “FCC Chairman Proposes ‘Open Internet’ Rules,” September 21, 2009

My Travel Schedule

- Away next week
  - Tuesday: Professor Subhas Desa
  - Thursday: Professor Ram Akella

- Possibly away 1 week in October

- Also, I have a class right after this one...

Courses Objectives

- The objectives of ISM 50 are to understand
  - needs of business
  - role of information systems in supporting those needs
  - How information systems are designed
  - How information technology is evolving
  - How changes in technology can enable new ways of doing business.
  - How to conceptualize and analyze new technologies to solve business problems.

Information Systems Management 50

- What it is not:
  - A programming class
    - (Though some simple programming may be required for some assignments and/or projects)
  - A detailed focus in any particular technology.
    - (A survey of IS technology landscape and its relation to business problems)

ISM 50 Course Pre-requisites

- No specific programming language knowledge required, though useful

- We will assume you know word-processing and PowerPoint
  - PowerPoint is easy to learn
  - We will assume you are motivated and eager to learn!
    - Come to class having done the reading!
What comes first?

- Do business needs drive the design of technology?
- ...Or does the technology drive the design of a business?
- Both!

Course Organization

- Top Down (Roughly)
  - IT Terminology and IT History
  - Businesses and their needs
  - Technological Applications
  - Technology concepts
  - Important "building block" Information Technologies
    - Databases
    - Networks
  - Case Studies Throughout

Reader 1: Pages from

- Author: David Messerschmitt, Professor of EECS, UC Berkeley
- Focus on
  - Technological concepts in computing and communications.
  - Applications.
- Top down organization, like our course
- Available now at Bay Tree Bookstore!

Reader 2

- This reader contains
  - Case Studies
  - Other Readings
  - Also available now at the Bay Tree Bookstore
- Reader 2 is same as reader from past quarters

Case Studies (in reader)

- Examples of Businesses using Information Technology
- Illustrates the concepts we learn in the class
- The case studies are mostly from the Harvard Business School
  - Designed to stimulate classroom discussion in MBA classes
### Class Webpage

http://www.soe.ucsc.edu/classes/ism050/Fall09/

Contains:
- Syllabus
- Assignments
- Instructor contact information
- Requirements for business paper, database project
- Exam dates

### Syllabus (Tentative) on WebPage

<table>
<thead>
<tr>
<th>Class #</th>
<th>Date</th>
<th>Topics</th>
<th>Reading</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/26</td>
<td>Class Introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9/29</td>
<td>IT History and Background</td>
<td>IT Management from 1960-2000 (reader pp 1-26)</td>
<td>Project Proposal Due</td>
</tr>
<tr>
<td>3</td>
<td>10/1</td>
<td>Comparing IT</td>
<td>Chapter 1 - Section II of O’Brien (reader pp 47-60)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>4</td>
<td>10/6</td>
<td>Comparing IT (Cont’d)</td>
<td>Chapter 2 - Section II of O’Brien (reader pp 60-77)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>5</td>
<td>10/8</td>
<td>Business Processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10/13</td>
<td>Enterprise Applications, Information Access Terms</td>
<td>Messerschmitt Ch 2.7 (156-168)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>7</td>
<td>10/15</td>
<td>Enterprise Applications (cont’d)</td>
<td>Messerschmitt Ch 3.1-3.3 (90-92)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>8</td>
<td>10/20</td>
<td>E-commerce</td>
<td>Messerschmitt Ch 3.4-3.6 (83-98)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>9</td>
<td>10/22</td>
<td>IT Concepts</td>
<td>Messerschmitt Ch 4 (107-132)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>10</td>
<td>10/27</td>
<td>Client Server Computing</td>
<td>Messerschmitt Ch 5 (139-154)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>11</td>
<td>11/3</td>
<td>Modularity and Layering</td>
<td>Messerschmitt Ch 6 (157-190)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>12</td>
<td>11/5</td>
<td>Computer and Comm. Industry</td>
<td>Messerschmitt Ch 7 (190-220)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>13</td>
<td>11/10</td>
<td>Database Management</td>
<td>Messerschmitt Ch 11.1 - 11.2 (255-322)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>14</td>
<td>11/12</td>
<td>Database Management (Cont’d)</td>
<td>Messerschmitt Ch 11.1 - 11.2 (255-322)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>15</td>
<td>11/17</td>
<td>Networking</td>
<td>Messerschmitt Ch 18 (493-512)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>16</td>
<td>11/20</td>
<td>Networking (Cont’d)</td>
<td>Akamai Case (213-228)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>17</td>
<td>11/24</td>
<td>Applications and the Organization</td>
<td>Messerschmitt Ch 9 (273-289)</td>
<td>Assignment 1 Due</td>
</tr>
<tr>
<td>18</td>
<td>11/26</td>
<td>Thanksgiving Holiday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>12/1</td>
<td>Application Architecture</td>
<td>Messerschmitt Ch 10 (269-322)</td>
<td>Assignment 1 Due</td>
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<tr>
<td>20</td>
<td>12/3</td>
<td>Application Architecture</td>
<td>American Airlines Case (185-171)</td>
<td>Assignment 1 Due</td>
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</table>

### Evaluation (posted on web page)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Pop Quizzes</td>
<td>5%</td>
</tr>
<tr>
<td>Oral Presentation or Fools</td>
<td>5%</td>
</tr>
<tr>
<td>Weekly Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Business Paper Proposal</td>
<td>5%</td>
</tr>
<tr>
<td>Midterm</td>
<td>15%</td>
</tr>
<tr>
<td>Database Assignment</td>
<td>10%</td>
</tr>
<tr>
<td>Business Papers Final</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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</table>

### Exams

- **Midterm**
  - Probably 10/29
- **Final**
  - December 7
- **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

#### 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**

**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

**Presentation Evaluation**
- **Content**
  - Did the summary capture most important aspects of the case study?
  - Was the news story relevant to the class?
- **Delivery**:
  - Organization
  - Voice Articulation
  - Eye Contact
  - Enthusiasm

**Presentation Tips**
- Ask the following question: Who is my audience and what is my major message?
- Don’t try to say too much for five minutes
- Avoid jargon – explain technical concepts with simple examples.
- Avoid reading
- Act interested!

** Folios**
- There are too many of you to have everyone give a presentation.
- Those who are not assigned a presentation will do a “news folio.”
- **Task**:
  - Collect 3 news articles that are relevant to the class
  - Print/copy them
  - For each article, write a 200 word description of how the article relates to issues discussed in class.
- Due dates:
  - Article 1 - 10/13
  - Article 2 - 11/5
  - Article 3 - 12/1
Presentation /Folio Summary

- You will be assigned either a news folio or an in-class presentation.
- In either case this will be worth 5% of your grade.

Need Presentation Volunteers!

- Tuesday 9/29: Two News Stories.
- Thursday 10/1: Two News Stories.

The rest of this quarter’s presentation assignments will be announced next week.

BUSINESS PAPER

Business Analysis Paper

- Write a paper about a company of your choice.
- Pick a company for which information systems played a key role in making that company successful.
  - How did information systems help make the company successful?
- Paper Organization
  - Up to your group (Work in groups of 3 to 4)
  - Chronologically, by topics, or some combination of both.

Business Analysis Paper

- How did the company use IT to support or enable its business processes and competitive strategies?
  - What technologies in particular did it use?
  - How much of the company’s success do you attribute to its use of IT and/or the company’s early adoption of IT into their business processes?

Business Analysis Paper

- The paper should answer questions like:
  - What industry does the company compete?
  - What is the competitive environment like?
    - “Porter model” (competitors, substitute products, buyers, suppliers, new entrants..)
  - How did your company use IT to gain a competitive advantage?
  - (Detailed guidelines are posted on the website)
Citing Sources

- Plagiarism is illegal and cheating and will not be tolerated!!
- More than thirty words verbatim must be cited.
- Any facts or figures that are not your own must be cited.
  - Ebay’s revenues in US Revenues in 2002 were $1.39 billion [1].

Citing Sources

- The easiest way to lose points on your paper is to not cite sources!
- Guide on class website will be posted soon to help you cite your sources correctly.
- Talk to the TA or instructor if you have questions.

Suggested sources of Information

- Company website
- 10K report
  - (This is the annual report public companies file with Security and Exchange Commission.)
- Business article database
  - A database of articles from magazines like “Business Week” and economics journals.
  - Find it at: http://library.ucsc.edu
  - Click on “articles databases” on left margin.
  - Click on “By subject”
  - Click on “economics”
  - Try this tonight! And let us know if you have problems
- Industry specific publications
  - Example: Aviation Week
- Books
- Good Magazines (The Economist)
- Consulting groups: Forrester, Gartner, …

Business Analysis Paper Preferences

Due Tuesday Sept 29!
- You are encouraged to try to form your own groups.
  - However, we want a mix of
    - Engineers and non-engineers
    - Experience levels
  - So, we may modify the groups.
- As a group, turn in 3 things:
  1. List of your proposed group members.
  2. List of companies you would like to study.
  3. Suggested person to do the 5 minute presentation on your group’s project.
- If you don’t have someone in mind to work with, turn in the above 3 things as an individual.

Business Analysis Paper Preferences

Due Tuesday Sept 30th!

At least two of your preferred companies must be from this list:
- Southwest Airlines
- Federal Express
- Home Depot
- Wal-Mart Stores
- Charles Schwab
- Amazon.COM
- EBay.COM

With your preferences in mind, we will make the final company assignments to the groups.

Semiconductor Trends, Silicon Valley Tech Week, August 9, 1999, page 81.

Ebay’s revenues in US Revenues in 2002 were $1.39 billion [1].

**Business Paper Proposal**

- As a group write a 2-3 page description of what you plan to investigate in your business paper!
- Show that you’ve done some research!
- Cite some facts, and some technologies and or strategies that you’ve heard about the company that you would like to investigate further.
- Remember to cite your sources properly!!!!

**PROPOSAL DUE October 20th.**

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**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

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**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!

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**Assignment 1**

- Turn in **Both:**
  - A Resume
  - And Cover Letter
- Due October 1 (1 week from today)

**Resume should be:**

- One page

**Focus:**

- Education, Experience, Skills and Abilities
- What can YOU do for an employer?
- You may choose to use a header with the purpose of the resume highlighted.

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**Personal Resume Criteria**

- Looks appealing. (fonts, format, margins)
- No Spelling mistakes
- Avoid irrelevant information from too far in the past
- One Page

- It takes time to build a good resume...
Building Your Resume

Some things employers look for:
- Academically Qualified.
- Well Rounded (includes extra curricular activities)
- Summer Internships, or Part-time work During School
- Professional Presence (Society Memberships)
- Interested and Understanding of Employer's Area.

Educational Content

- Degrees held or degrees you are currently working on.
  - Name of the university.
  - Degree Type and Program
  - (Expected) Completion date
  - GPA
- Include High School degree?
  - Maybe if you are a freshman or sophomore.

Work Experience Content

- Reverse Chronological Order
- Provide Complete Information
  - Company Name
  - Location (city and state)
  - Employment dates (from - to)
    - 1999 to Present if still employed
  - Job Title
  - Major responsibilities
  - Major accomplishments
  - How do these pertain to the job you are seeking?

Sample

The G. Hernandez Company (GHC)

Chemical Processing
- Operated and maintained existing and new printing lines used for producing, loading, and distributing glassware.
- Oversee the preparation and maintenance of the paper used in the printing process, ensuring its quality is maintained.
- Collaborated with senior managers and production teams on various projects.

Computer Skills
- Operating Systems: Windows 10, Linux
- Software: Word, Excel, PowerPoint, Adobe Acrobat

Activities
- Member of the chemical processing team.
- Attended various workshops and seminars related to chemical processing.

Sample Cover Letter

A letter of introduction, to accompany resume.
- Include brief description of background
- Write it as if you were applying to take the class, or pretend like you are applying to a job.
- Format it as a business letter.
Cover Letter

Bob Brown  
1234 Ocean St.  
Santa Cruz, Calif.  
September 21, 2005

Jane Smith  
Chief Information Officer  
ABC Corporation  
Santa Clara, CA 95090

Dear Ms. Smith:

I am writing to apply for the position of Web Architect at ABC Corporation. I feel especially well qualified for the position because of my extensive coursework in both programming and in information systems I have had as an Information Systems Management (ISM) student at UC Santa Cruz. I have also had experience designing the website of XYZ corporation… I have enclosed a copy of my resume. Please contact me if you have any questions about my background. I look forward to hearing from you.

Sincerely,

Bob Brown

TO DO:

By Tuesday (9/29):

- Read "IT Management from 1960-2000" in Reader
- Read Chapter 1, Section II, of O'Brien Book (this material is also in your reader.)

Business Paper Preferences

- Group members, Companies
- Turn in as a group

By Thursday (10/1):

- Resume & Cover Letter
- Turn in as an individual

Game Theory and Applications I  
Fall 2009!!!

Tu and Th 12:14-1:45 (Physical Sciences 110)

Cross Listed As:

Economics 166A  
Computer Science 166A  
Biology 176A

Instructors:

Barry Sinervo  
Biology  
sinervo@biology.ucsc.edu

John Musacchio  
Technology and Information Management  
johnm@soe.ucsc.edu

Topics:

- Sequential and Strategic Games  
- Nash Equilibria  
- Evolutionary Games  
- Application Examples:  
- Computation in Markets,  
- Networks,  
- Transport Congestion Games,  
- And many more…

Prerequisites:

- Undergraduate probability and calculus
- A strong minor in Engineering, Physical and Biological Sciences, or Social Sciences.

Further Information:

- http://www.soe.ucsc.edu/classes/cmps166a

Description:

Game theory is an essential tool for understanding competition in markets, the evolution of species, the interaction of agents in computer networks, and conflicted cyber-physics. In this course we introduce the key ideas of modern game theory. While developing the theory, we regularly discuss examples taken from the social sciences, biology, engineering, and applied math.

Further Information:

- http://www.soe.ucsc.edu/classes/cmps166a

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By Thursday (10/1):

- Resume & Cover Letter
- Turn in as an individual