TIM 50 - Business Information Systems

Introduction

Instructor: John Musacchio
UC Santa Cruz
1/7/2013

TIM 50 – Course Parameters:
- Mondays and Wednesdays 5-6:45 PM
- Baskin 152
- WEB PAGE:
  - (write this down, go home, and bookmark it!)
  - http://classes.soe.ucsc.edu/tim050/Winter13/

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TIM 50

TAs
- Kai Li (kailu@soe.ucsc.edu)
- Elahe Rahimtoroghi (elahe@soe.ucsc.edu)

What is this class about?

Acquiring a Song in 1982

Drive to record store
Search for hours for desired music
Buy

Acquiring a car in 2012

Push iTunes Button
Type name of song
Press “Buy”
More Examples

Customer Relationship Management (CRM)

1982: Who's got the power?

2012: Who's got the power?

UPS

- DIAD
  (Delivery Information Access Device)

Business Process Example

A Streamlined Business Process

Automatic Credit Check
A Reengineered Business Process

Customer
Sales
Finance
Inventory Control
Warehousing

A Reengineered Business Process

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
- Transaction Processing
- Enterprise Resource Planning

What is an information system?

First let us answer: what is a system?
- Interrelated components
  - Input
  - Processing
  - Output

What is an information system?

Information system
- A combination of people, hardware, software, networks..
- that collects, transforms, and disseminates information in an organization.

What is information technology?

It's the technology you use to make an information systems
- Computer Hardware, Software, Networks, etc...

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 [1]."
  - "We could see the Internet’s doors shut to entrepreneurs, the spirit of innovation stilled… 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 [1]."
  - April 2010: Court rules FCC lacks power to censor Comcast.
  - August 2010: Google and Verizon proposal: neutral wired, less neutral wireless.

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**Courses Objectives**

- The objectives of TIM 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.

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**TIM 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)

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**TIM 50 Course Pre-requisites**

- No specific programming language knowledge required, though useful

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**What comes first?**

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

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**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
    - Data Bases
    - Networks
- Case Studies Throughout

Reading Material 1

Selected Chapters from:
D. Messerschmitt, Understanding Networked Applications

Case Studies

- Otis Elevator
- Cisco Systems
- Alibaba
- Zhejiang Corporation
- Amazon Web Services

Reading Material 2

Selected Chapters from:
Laudon & Laudon, Essentials of MIS, 9th edition

Class Webpage

http://classes.soe.ucsc.edu/tim050/Winter13/

Contains
- Syllabus
- Assignments
- Instructor contact information
- Requirements for assignments and projects
- Exam dates

Lecture Plan (Posted on Web page)

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1/14</td>
<td>Business Background and Terminology, Types of Enterprises, Business Processes</td>
<td>Material &amp; Laudon Ch 3-5, 7-8, see slide notes on slide 36</td>
<td>Paper Notes Practice</td>
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<tr>
<td>2</td>
<td>1/21</td>
<td>Case Studies Application - Retail (LuAnn)</td>
<td>Material &amp; Laudon Ch 4 or 6 or 7, see slide notes on slide 36</td>
<td>Paper Notes Practice</td>
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<tr>
<td>3</td>
<td>1/28</td>
<td>Case Studies Application - Retail (LuAnn)</td>
<td>Material &amp; Laudon Ch 3 or 5 or 7</td>
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<tr>
<td>4</td>
<td>2/4</td>
<td>Network Concepts</td>
<td>Material &amp; Laudon Ch 8 or 9 or 10</td>
<td>Paper Notes Practice</td>
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<tr>
<td>5</td>
<td>2/11</td>
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<td>Material &amp; Laudon Ch 5 or 6 or 7</td>
<td>Paper Notes Practice</td>
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<tr>
<td>6</td>
<td>2/18</td>
<td>Case Studies Application - Retail (LuAnn)</td>
<td>Material &amp; Laudon Ch 6 or 7 or 8</td>
<td>Paper Notes Practice</td>
</tr>
<tr>
<td>7</td>
<td>2/25</td>
<td>Case Studies Application - Retail (LuAnn)</td>
<td>Material &amp; Laudon Ch 7 or 8 or 9</td>
<td>Paper Notes Practice</td>
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Lecture plan cont’d (Posted on web page)

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<thead>
<tr>
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<tr>
<td>21</td>
<td>Computer and Data Backery</td>
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<td>22</td>
<td>Applications and the Environment</td>
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<td>33</td>
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Evaluation (posted on web page)

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<tr>
<th>Item</th>
<th>Due Date</th>
<th>Value</th>
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<tbody>
<tr>
<td>Regular Assignments</td>
<td>multiple</td>
<td>10%</td>
</tr>
<tr>
<td>Database Assignments</td>
<td>multiple</td>
<td>10%</td>
</tr>
<tr>
<td>In-class exercises / Quizzes / Discussion Forum</td>
<td>multiple</td>
<td>10%</td>
</tr>
<tr>
<td>Business Paper Proposal</td>
<td>2/4</td>
<td>5%</td>
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<tr>
<td>Business Paper Final Draft</td>
<td>2/27</td>
<td>5%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>3/18</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>3/20</td>
<td>25%</td>
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Regular Exercises (10%)
- Exercises pertaining to the reading and class discussion
- About 6 or so of these in the quarter
- First one to be assigned this week.

Database Exercises (10%)
- Early in the quarter, TAs will hold tutorial sessions on MS Access
  - Choose from 3 times in each of week 3 and week 4.
  - Times to be announced this week.

In Class Exercises / Quizzes / Discussion Forum (10%)
- Some classes, we will break into groups to discuss readings and case studies
  - Groups will turn in answers after class
- A online forum will be created
  - Follow up questions from class, and group exercises
- Pop quizzes (In-Class)
  - ~3 per quarter. Easy questions pertaining to reading

Exams
- Midterm
  - Probably 2/13
- Final
  - 3/20
- Closed book
  - A mix of short answers and multiple choice
BUSINESS PAPER

Write a paper about a company of your choice.

Pick a company for which information systems played a key role

Work in groups of about 4

Business Analysis Paper

Paper Should address the following areas:
- Industry Profile
- Company Profile
- Information Technology
- Leadership
- Market and Financial Performance
- Trajectory

Industry Profile
- What is the industry?
- What value does the industry provide to its customers?
- Describe the competitive environment (Porter Model)

Company Profile
- What business is your company in?
- What value does it provide its customers?
- In what ways is it different than its competitors?
- How has its history shaped what it can offer its customers?

Information Technology
- How does the company use IT to support or enable its business processes and competitive strategies?
- What technologies does it use?
- Does the company use existing technologies, develop its own technology, or some combination of both?
- How much of the company's success do you attribute to its use of IT and/or its company's early adoption of IT into their business processes?
- Is it used to enhance or differentiate their product, reduce costs, or both?
Business Analysis Paper

- **Leadership**
  - Who are/were the key leaders of the company?
  - What decisions did these leaders make, in particular decisions relating to the deployment of IT?
  - What opportunities did they identify that helped make their company what it is today?

- **Market and Financial Performance**
  - What is the company’s revenue and profit, and how has it evolved over the years?
  - How does the company’s performance compare to its competitors?
  - Industry specific measures:
    - Cost per Available Seat Mile (Airlines)
    - Sales per square foot (retail)

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 US Revenues in 2002 were $1.39 billion [1].

You must cite your sources in the body of the text!!!!!

-Semiconductors have found a place in virtually every electronic device in existence... industry was able to reach $200 billion in sales ..." [1].

End Note:


**The easiest way to lose points on your paper is to not cite sources!**

- Guides 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
  - See UCSC Library website!
- Industry specific publications
  - Example: Aviation Week
- Books
- Good Magazines (The Economist)
- Consulting groups: Forrester, Gartner, ...

Citing Sources

- To receive Full Credit, you must cite at least 5 print sources.
- If your source is available both online and in print, cite the print version.

Business Analysis Paper Preferences
Due Monday 1/14!

- We want you 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:
  - Names of proposed group members with emails
  - List of companies you would like to study
- Use the form we provide on the class webpage!

Business Analysis Paper Preferences
Due Tuesday 1/17!

At least two of your preferred companies
must be from this list:
- Wal-Mart
- Southwest Airlines
- Charles Schwab
- Home Depot
- Netflix
- Amazon

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

Business Paper Preferences 1/14

- To help us create balanced groups...
- ...you will self identify your best skills
  from:
  W: Writing
  A: Accounting and finance
  C: Computers and technology
  S: Business strategy
  L: Literature Search

Business Paper Preferences

- Example:
  - Bob Smith smith@yahoo.com A, L
  - Jane Doe do@hotmail.com C, W
  - Chris Tomas chris@gmail.com S, W

  Alibris
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!!!
- DUE: February 4

Business Paper

First Draft
- draft of your final paper
- The closer the better
- Due 2/27

Business Paper

- Final Draft
- Due 3/18 (Last Day of Class).