Introduction

Instructor: John Musacchio

UC Santa Cruz
4/1/2014
TIM 50 -

Course Parameters:
- Tuesdays and Thursdays 12-1:45 PM
- E2 180
- WEB PAGE:
  - (write this down, go home, and bookmark it!)
  - http://classes.soe.ucsc.edu/tim050/Spring14/

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TIM 50

TA
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”
1982: Who's got the power?
2012: Who's got the power?

[Image: Cartoon of people looking up at an Apple logo, with text boxes labeled 'Record Label']
UPS

- DIAD (Delivery Information Access Device)
Customer
- Sales
- Finance
- Inventory Control
- Warehousing

Business Functions

Order
  ↓
Take Order
  ↓
Enter Order
  ↓
Credit Check
  ↓
Check Stock
  ↓
Print Packing list
  ↓
Tell Mfg. to make order

Print Invoice
  ↓
Find Goods
  ↓
Ship
A Streamlined Business Process

Customer → Order → Take Order → Enter Order → Check Stock → Print Packing list → Find Goods → Ship

Automatic Credit Check

Sales
Finance
Inventory Control
Warehousing

Business Functions

Tell Mfg. to make order
A Reengineered Business Process

Customer

Order
On web

Automatic Credit Check
Automatic Checking of Stock

Inform Mfg. to replenish stock

Print
Packaging list
And invoice

Find
Goods

Ship

Business Functions

Sales

Finance

Inventory Control

Warehousing
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…
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.
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)
TIM 50 Course Pre-requisites

- No specific programming language knowledge required, though useful
What comes first?

- Do business needs drive the design of technology?
- Or does the technology drive the design of a business?
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**
Selected Chapters from:
D. Messerschmitt, *Understanding Networked Applications*

Case Studies

= Reading Material 1
Reading Material 2

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

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

http://classes.soe.ucsc.edu/tim050/Spring14/

Contains

- Syllabus
- Assignments
- Instructor contact information
- Requirements for assignments and projects
- Exam dates
<table>
<thead>
<tr>
<th>Class #</th>
<th>Date</th>
<th>Topics</th>
<th>Reading</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>4/1</td>
<td>Class Introduction</td>
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<tr>
<td>2</td>
<td>4/3</td>
<td>Business Background and Terminology, Types of Enterprise Information Systems</td>
<td>Laudon &amp; Laudon Ch 2 (1-35, can skip cases on 16 and 26)</td>
<td>Bus Paper Preferences Out</td>
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<tr>
<td>3</td>
<td>4/8</td>
<td>Competing with IT, Transforming Business Processes</td>
<td>Laudon &amp; Laudon Ch 3 (45-74, can skip cases on 52 and 62)</td>
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<td>4/10</td>
<td>Business Process Transformation Cont’d, Enterprise Applications</td>
<td>Otis Case</td>
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<td>Begin Laudon &amp; Laudon Ch 8 (83-97 until end of section 2, can skip case on 93)</td>
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<td>4/15</td>
<td>Enterprise Applications (cont’d)</td>
<td>Finish Laudon &amp; Laudon Ch 8 (97-108, can skip case on 100)</td>
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<td>4/17</td>
<td>Conclude Enterprise Applications, Begin E-commerce</td>
<td>Cisco Case</td>
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<td>Begin Laudon &amp; Laudon Ch 9 (117-127)</td>
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<td>7</td>
<td>4/22</td>
<td>E-commerce (cont’d)</td>
<td>Laudon &amp; Laudon Ch 9 (128-148, can skip case on 132)</td>
<td>Alibaba Case</td>
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<td>8</td>
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<td>IT Concepts</td>
<td>Messerschmitt Ch 4 (107-132)</td>
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<td>Client Server Computing</td>
<td>Messerschmitt Ch 5 (139-154)</td>
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<td>Modularity and Layering</td>
<td>Messerschmitt Ch 6 (157-190)</td>
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<td>5/6</td>
<td>MIDTERM EXAM</td>
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<td>5/8</td>
<td>Computer and Comm. Industry</td>
<td>Messerschmitt Ch 7 (197-226)</td>
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<td>Applications and the Organization</td>
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<td>Course Review</td>
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<td>6/11</td>
<td>FINAL EXAM</td>
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Evaluation (posted on web page)

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<td>Regular Assignments</td>
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<td>10%</td>
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<tr>
<td>Database Assignments</td>
<td>multiple</td>
<td>10%</td>
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<tr>
<td>In-class exercises / Quizes</td>
<td>multiple</td>
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<td>Business Paper Proposal</td>
<td>4/24</td>
<td>5%</td>
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<tr>
<td>Business Paper First Draft</td>
<td>5/20</td>
<td>5%</td>
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<tr>
<td>Business Paper Final Draft</td>
<td>6/5</td>
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<tr>
<td>Final Exam</td>
<td>6/11</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 (10%)

- Some classes, we will break into groups to discuss readings and case studies
  - Groups will turn in answers after class

- Pop quizzes (In-Class)
  - ~3 per quarter. Easy questions pertaining to reading
Exams

- **Midterm**
  - May 6

- **Final**
  - June 11

- **Closed book**

- **A mix of short answers and multiple choice**
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

- You’ll 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)
Business Analysis Paper

- **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 it's 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 the 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)
Business Analysis Paper

- **Trajectory**
  - If the company successfully used information systems in its past, has it continued to innovate and improve up until today?
  - Is the company effectively postured for the future?
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].
Citing Sources

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:

**Citing Sources**

- 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.
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 4/8!

At least two of your preferred companies must be from this list:

- Ryanair
- CVS Caremark
- eBay
- Carrefour
- Zara
- Netflix
- Barclays
- Amazon

With your preferences in mind, we will make the final company assignments to the groups.
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 Do  do@hotmail.com  C, W
  - Chris Tomas  chris@gmail.com  S, W