Class Announcements

- Business Paper Proposal Due Tuesday!

- Tuesday presentations:
  - Bradon Espinoza (Alibris Case)
  - Ellis McKiernan (news)
Class Announcements

- Project proposals due in 5 days!!
  - 1-2 pages
  - Give a plan what you will do
  - Cite some references, and show that you have started your research!
  - See website for more details.
Student Talks

- Aaron Harlan (News)
What do Porter Models Have to do with IT?

Any ideas?
Porter Model and Information Systems:

1. Build barriers to prevent a company from entering an industry?

2. Build in costs that would make it difficult for a customer to switch to another supplier?

3. Change the basis for competition within the industry?

4. Change the balance of power between a company and its customers or suppliers?

5. Provide the basis for new products and services?
Porter’s Value Chain

- **Porter’s Competitive Model** deals with the company’s competitive environment.

- **Porter’s Value Chain** tracks progress of a product through organization:
  - Starts with idea in research
  - Finishes with delivery to customer.
Generic Value Chain

SUPPORT ACTIVITIES

- FIRM INFRASTRUCTURE
- HUMAN RESOURCE MANAGEMENT
- TECHNOLOGY DEVELOPMENT
- PROCUREMENT

PRIMARY ACTIVITIES

- INBOUND LOGISTICS
- OPERATIONS
- OUTBOUND LOGISTICS
- MARKETING AND SALES
- SERVICE
Value Chain Purpose

- A way of classifying a company's activities and how they help deliver value to the customer.

- A framework for evaluating decisions like outsourcing, or deployment of IT.
Examples of IT Supporting Value Chain
A Virtual Company

- A form of Organization
- ...that uses telecommunication and other IT to link
  - People
  - Assets
  - Ideas
  - Business partners
- ... in order to exploit a business opportunity
Virtual Company Positives

- Move more quickly
- Combine the products and services of specialized vendors to create something new.
- Might allow company to focus more on offering solutions (products+services) rather than product itself.
Possible Negative Factors

- Will vendors be low enough cost?
  - What about their bargaining power?

- Should the skills and knowledge be developed and maintained in-house?
  - Competitive advantage
  - Future flexibility
Other terms in Chapter 2

- **Explicit knowledge**
  - That which can be written down

- **Tacit Knowledge**
  - That which is cannot be written down
  - Example: How to Ride a bicycle.

- **Much of a company’s value is in its knowledge**
  - Patents, documents
  - Tacit knowledge in employee’s heads
Other terms in Chapter 2

- Knowledge-Creating Company
  - Create new business knowledge
  - Disseminate knowledge throughout company

- Knowledge Management Systems
  - Facilitate this dissemination
  - Often, like a search engine on a company intranet.

- Aside: might a knowledge management system affect the negotiating power of employees?
What is an application?
- Computer software that performs useful capabilities for a user, organization, incorporating storage, manipulation, and communication of information.

An organizational application
- Supports an organization

Often called enterprise application
- (An enterprise is an organization with a commercial mission)
Types of organizational applications

- **Departmental**
  - Supports a single functional department
  - Example: An accounts management application for an accounting department.

- **Enterprise**
  - Support enterprise-wide processes and goals.
  - Example: coordinate information between functional departments involved in fulfilling an order.
    (or other cross functional process.)
Some Types of Organizational Applications

- **Worker Collaboration**
  - Example: video conferencing

- **Operations and Logistics**
  - Example: coordinate movements of goods between sites.

- **Decision Support**
  - Summarize info for execs.

- **Knowledge Management**
  - Organize and retrieve knowledge in company’s documents and databases
Examples

Software Merchant

- Customer Relationship Management
  - Maintain a case file of customer questions and complaints.
  - Website of Freq. Asked Ques. And documentation.
  - Chat application for customers to communicate with tech-support personnel.
Examples

On-Line Stock Trading

- Information Management application for paying customers
- Specialized software to interface with
  - customers
  - stock exchange
  - Customer’s bank
Some more terms

**Transaction Processing Systems** record and process data from business transactions.

**Batch Processing** - transactions are accumulated over a period of time and processed periodically.

In **Online Transaction Processing (OLTP)**, transactions are processed immediately.
Some More Terms

- A **workflow** application supports ongoing repetitive tasks.
  - Example: An application that passes a case summary of a customer from customer service to tech support.
So what exactly is ERP??
The precursor to ERP, MRP

- **MRP (Material or Manufacturing Resource Planning)**
  - Take:
    - Product Demand forecasts
    - Inventory Balances
    - Replenishment Lead Times
  - Develop a Production schedule for a single plant

- At this Point, it is a planning tool
Later on More capabilities added

- Order Processing
- Product Costing

The planning tool begins to take more and more of an active roll in the business processes.
A desire to Link Across Functional Departments of firm

- Each functional department had its own legacy application
  - Programmed in different languages
  - Different Data formats

- Often some data was shared between departments by duplicating it.
MRP evolves into ERP

- A common software architecture with modules to support different business functions.
  - Accounting, finance, sales, HRM, material management, etc...

- Key features:
  - Multi-functional
  - Integrated
  - Modular
ERP

- How would you design an ERP?
- Design a user interface for each module
  - Ask user to fill in certain “fields” at particular times.
  - Set up a sequence of events
    - When the sales department enters an order, that event triggers an event at the manufacturing department.
- But by doing this, aren’t we presuming a particular business process?
Fundamental options

- Customize the application to existing organization?
- Mold organization to off-the-shelf application?
  - Is software a good way to propagate best practices?
Break
Cisco Case

Jason Liang