ISM 50 - Business Information Systems
Lecture 7
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Class Announcements

- Business Paper Proposal Due Tuesday!
- Tuesday presentations:
  - Phillip Carter (Alibris Case)
  - Alyson Ng (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

- Dino Fekaris (News)

Applications

- 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.

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)
  - Takes:
    - 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?