Database Tutorials

- DONE!!!!
Class Announcements - Pushing Out submissions

- Project proposals due on 10/27 !!
  - 2-3 pages
  - Give a plan what you will cover in report
  - Cite some references, and show that you have started your research!
    - Remember references must be cited in the body of the text with footnotes or end notes.

- Assignment 3 will be pushed out
  => Enough Prep time for Midterm!
- DB Assignment STILL due next Tuesday 10/20
Business Papers

 Submission:

- Designate 1 group “leader”
- Each group’s “leader” submits electronically on e-commons
Next Lecture - Tues 10/20/2015

- Prof. John Musacchio
Mid term - Next Thursday
10/22/2015

• Will review format in class today
• Will send out examples by weekend
• In class
• Multiple choice + Answer short questions
• Everything covered in class till end of Tuesday, 10/20/2015
Final

- December 8, 2015
- 4-7 pm
- Same room
- Please confirm!

(Communication from Registrar)
Feedback

- On Assignments 1 & 2
- In class TODAY
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?
Questions

How standardized are organizational processes?

- Customer service
- Finance
- Manufacturing
Fundamental options

- Customize the application to existing organization?
- Mold organization to off-the-shelf application?
  - Is software a good way to propagate best practices?
What Is Customer Relationship Management?

- Knowing the customer
  - In large businesses, too many customers and too many ways customers interact with firm

- Customer relationship management (CRM) systems
  - Capture and integrate customer data from all over the organization.
  - Consolidate and analyze customer data.
  - Distribute customer information to various systems and customer touch points across enterprise.
  - Provide single enterprise view of customers.
CRM Software

- CRM packages typically include tools for:
  - Sales force automation (SFA)
    - E.g., sales prospect and contact information, and sales quote generation capabilities
  - Customer service
    - E.g., assigning and managing customer service requests; Web-based self-service capabilities
  - Marketing
    - E.g., capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail
This process map shows how a best practice for promoting customer loyalty through customer service would be modeled by customer relationship management software. The CRM software helps firms identify high-value customers for preferential treatment.
Operational and Analytical CRM

• **Operational CRM:**
  • Customer-facing applications such as sales force automation, call center and customer service support, and marketing automation

• **Analytical CRM:**
  • Analyzes customer data output from operational CRM applications
  • Based on data warehouses populated by operational CRM systems and customer touch points
  • Customer lifetime value (CLTV)
Analytical CRM uses a customer data warehouse and tools to analyze customer data collected from the firm’s customer touch points and from other sources.

Figure 8-11
Business Value of Customer Relationship Management

- **Business benefits:**
  - Increased customer satisfaction
  - Reduced direct-marketing costs
  - More effective marketing
  - Lower costs for customer acquisition/retention
  - Increased sales revenue

- **Churn rate:**
  - Number of customers who stop using or purchasing products or services from a company
  - Indicator of growth or decline of firm’s customer base
Enterprise Application Challenges

- Highly expensive to purchase and implement enterprise applications—total cost may be four to five times the price of software
- Technology changes
- Business process changes
- Organizational changes
- Switching costs, dependence on software vendors
- Data standardization, management, cleansing
Extending Enterprise Software

• To bring greater value from enterprise applications
  • **Enterprise solutions/suites:** make applications more flexible, Web-enabled, integrated with other systems
  • **Service platform:** integrates multiple applications to deliver a seamless experience for all parties
    • Order-to-cash process
    • Portal software
Cisco Case
Break into groups

Discuss

- Imagine you were asked to lead an ERP deployment at another company,
  1) What ideas would you borrow from Cisco’s ERP project?

  2) What factors worked in Cisco’s favor that might not apply to other companies trying to do an ERP project?

  3) What mistakes would you avoid that Cisco made?

Write your ideas down.
Cisco Summary

Success Factors

- Cross-Functional Team of top people
  - People from across the company involved
- Hungry Vendors
  - Oracle and KPMG needed this to succeed
- Strong Support from Top Management
- Favorable Hardware Contract
- Rapid Prototyping
- Aggressive pace

Challenges

- Poor testing Strategy
- Inadequate Hardware
- Software required more modifications than originally hoped.

Good management or luck?
Cisco Summary

Challenges

- Poor testing Strategy
- Inadequate Hardware
- Software required more modifications than originally hoped.
Cisco Summary

What did it cost?

Costs Beyond original budget:

**Non-IT Personnel In Project**
- 80 personnel \( \times 8 \text{ months} \times 160 \text{ hours/month} \times 100 \text{ hour} = $10 \text{ million} \)

**IT-Personnel beyond original 20**
- 80 personnel \( \times 4.5 \text{ months} \times 160 \text{ hours/month} \times 100 \text{ hour} = $5.7 \text{ million} \)

Actually cost more than 15 million more than the original budget of $15 million!

Was this really a success?!
Unique Features of E-commerce Technology

• Richness
  • Supports video, audio, and text messages
Unique Features of E-commerce Technology

- Interactivity
  - The technology works through interaction with the user
  - Effect:
    - Consumers engaged in dialog that dynamically adjusts experience to the individual.
    - Consumer becomes co-participant in process of delivering goods to market.
Unique Features of E-commerce Technology

• Information density
  • Large increases in information density—the total amount and quality of information available to all market participants

• Effect:
  • Greater price transparency
  • Greater cost transparency
  • Enables merchants to engage in price discrimination
Unique Features of E-commerce Technology

- Personalization/Customization
  - Technology permits modification of messages, goods
  - Effect:
    - Personalized messages can be sent to individuals as well as groups.
    - Products and services can be customized to individual preferences.
Unique Features of E-commerce Technology

- Social technology
  - The technology promotes user content generation and social networking
  - Effect:
    - New Internet social and business models enable user content creation and distribution, and support social networks.
Key Concepts in E-commerce: Digital Markets and Digital Goods In a Global Marketplace

• Digital markets reduce
  • Information asymmetry
  • Search costs
  • Transaction costs
  • Menu costs

• Digital markets enable
  • Price discrimination
  • Dynamic pricing
  • Disintermediation