Outline For Today

- Class Announcements
- Student Presentation
- O’Brien Ch 2 cont’d
- Information Access
- Frito Lay Case
Student Talks
A Virtual Company

A form of organization that uses telecommunications networks and other IT to link the people, assets and ideas of a variety of business partners, no matter where they may be located, in order to exploit a business opportunity.
Virtual Company Positives

- Share infrastructure and risk.
- Link complementary core competencies.
- Reduce concept-to-cash time through sharing.
- Increase facilities.
- Expand market coverage.
- Migrate from selling products to selling solutions.
- Migrate from selling boxes to selling systems.
Possible Negative Factors

• Will the vendor be able to perform the service at a cost sufficiently low enough and still gain a profit?

• Will the people laid off take with them essential skills and insights that the company needs?

• Will the vendor be able to respond to the organization’s new needs for capabilities and flexibility?
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?
Other terms in Chapter 2

- **Agile Company**
  - Ability to prosper in rapidly changing environment
  - Some good examples in O’Brien ch2
Total Quality Management

What is it?
1. We are good, but we must continue to improve.

2. Individually and/or departmentally we may be very good but we must be as good in the total efforts of the entire organization.
What You'd Get From 99.9% Suppliers

- At Least 20,000 Wrong Drug Prescriptions Each Year.
- More than 15,000 Newborn Babies Dropped by Doctors or Nurses Each Year.
- Unsafe Drinking Water at Least One Hour Each Month.
- No Telephone Service or Television Transmission for Nearly Ten Minutes Each Week.
- Two Short or Long Landings at O’Hare Airport Each Day.
- Nearly 500 Incorrect Surgical Procedures Each Week.
- 2,000 Lost Articles of Mail Per Hour.
What You’d Get From Six Sigma Suppliers

- One Wrong Prescription in 25 Years.
- Three Newborn Babies Dropped by Doctors or Nurses in 100 Years.
- Unsafe Drinking Water One Second Every Sixteen Years.
- No Telephone Service or Television Transmission for Nearly Six Seconds in 100 Years.
- One Short or Long Landing in Ten Years in all the Airports in the U.S.
- One Incorrect Surgical Procedure in Twenty Years.
- Thirty-five Lost Articles of Mail Per Year.
TQM / Six Sigma

- So what does this have to do with Information Systems?
Chapter 2 Summary

- Porter models are important as a way to evaluate competitive environment and/or internal processes.

- Use Porter strategy terminology in discussing how an industry and companies in the industry compete.
Information access

by

David G. Messerschmitt
Copyright notice

©Copyright David G. Messerschmitt, 2000. This material may be used, copied, and distributed freely for educational purposes as long as this copyright notice remains attached. It cannot be used for any commercial purpose without the written permission of the author.

Adapted from slides for Understanding Networked Applications
By David G Messerschmitt. Copyright 2000. See copyright notice
A hierarchy

**Data**: numbers, character strings, etc.

**Information**: recognizable patterns organized so as to inform or influence us in some way

**Knowledge**: concepts, relationships, truths, principles.

**Wisdom**: insight or judgement

Adapted from slides for *Understanding Networked Applications* by David G Messerschmitt. Copyright 2000. See copyright notice
Classify these

- “XV”, “SF”, 34, “CN”, 16

- The 49-ers won Super Bowl XV by a score of 34 to 16.

- The National Football Conference wins 17 out of 20 Super Bowl’s on average.

- The best team usually wins.

- Football is a major cause of obesity because fans spend too much couch potato time in front of the boob tube.

Adapted from slides for *Understanding Networked Applications*
By David G Messerschmitt. Copyright 2000. See copyright notice.
Roles in information access

User

Author or publisher

Indexer or organizer

Librarian or teacher or interpreter

Recommender

Adapted from slides for *Understanding Networked Applications*
By David G Messerschmitt. Copyright 2000. See copyright notice
## Classify these

<table>
<thead>
<tr>
<th>Relative to <em>A Streetcar Named Desire</em>:</th>
<th>Relative to <em>Understanding Networked Applications</em>:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee Williams</td>
<td>D.G. Messerschmitt</td>
</tr>
<tr>
<td>Actor</td>
<td>Morgan Kaufmann</td>
</tr>
<tr>
<td>Critic</td>
<td>Amazon.com</td>
</tr>
<tr>
<td>Playbill magazine</td>
<td></td>
</tr>
</tbody>
</table>
Exercise

User
Author or publisher
Indexer or organizer
Librarian or teacher
Recommender

How are these roles being changed by networked computing?

Adapted from slides for *Understanding Networked Applications* by David G Messerschmitt. Copyright 2000. See copyright notice.
Push vs. pull

User

Control over what is provided
Time when it is provided

Intermediate cases:
Notification
Subscription

Push

Publisher

Adapted from slides for Understanding Networked Applications
By David G Messerschmitt. Copyright 2000. See copyright notice
Proper roles of push and pull in a workgroup

<table>
<thead>
<tr>
<th>Pull: work</th>
<th>Push: attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brainstorming</td>
<td>Notification of topic</td>
</tr>
<tr>
<td>Accessing documents</td>
<td>Notification of document availability</td>
</tr>
<tr>
<td></td>
<td>Reminder of deadlines</td>
</tr>
</tbody>
</table>

Adapted from slides for *Understanding Networked Applications*
By David G Messerschmitt. Copyright 2000. See copyright notice
Question

What are some differences between push and pull with respect to:

- invasiveness on the user?
- refinement of the information received?
- timeliness with which information received?

Adapted from slides for Understanding Networked Applications by David G Messerschmitt. Copyright 2000. See copyright notice.
Some modalities of information access

**Pull**
- Search
- Navigate
- Browse

**Push**
- Aggregate
- Filter
- Consolidate

**Intermediary**
- Delegate

**Agent**
- Subscribe

Adapted from slides for *Understanding Networked Applications*
By David G Messerschmitt. Copyright 2000. See copyright notice
Aids in finding useful information

Besides the information content itself, other aids:

- reference to related information: hyperlink
- list of content: index
- description of content: metadata
- judgment of content: recommendation

Adapted from slides for Understanding Networked Applications
By David G Messerschmitt. Copyright 2000. See copyright notice
Exercise

Give an example of the following functions in the context of movie rentals:

Hyperlink
Index
Metadata
Recommendation
Comment on the following widely held beliefs (at their time):

- “the movie will displace legitimate theater”
- “television will displace movies”
- “remote learning will displace the university campus as we know it”

What does this suggest about networked applications?

Adapted from slides for Understanding Networked Applications
By David G Messerschmitt. Copyright 2000. See copyright notice