Chapter 3

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Buzzwords

- Business process reengineering (BPR)
- Enterprise resource planning (ERP)
  - Outgrowth of manufacturing resource planning (MRP)
- Supply chain management

Some ERP categories

- Sales force management
- Document management
- Customer service and support
- Manufacturing logistics
- Accounting
- Human resources
- Supply-chain management

Questions

- Do you have experience with any of these options?
  - In terms of:
    - Effectiveness
    - Pain
    - Time/budget
Fundamental options

- Custom application molded to existing organization
- Custom application molded to re-engineered organization
- Mold organization to off-the-shelf application
  - Common off-the-shelf (COTS) technology
  - Highly configurable

Questions

- How standardized are organizational processes?
  - Customer service
  - Finance
  - Manufacturing
- Is software a good way to propagate best practices?

Productivity quandary

- Economists have difficulty identifying major productivity improvements due to investment in information technology
- Questions:
  - How does one separate quality from productivity?
  - In what ways can computing harm productivity?

Electronic commerce

- Two varieties:
  - Supply chain management: extension of ongoing business processes to suppliers and customers
  - Marketplace: dynamic, opportunistic transactions conducted over the network
- Question:
  - What are some characteristics of these options, in terms similar to social applications?

Electronic marketplace

- Matching buyers and sellers
  - Deferred-publication style
  - Recommender systems
- Negotiating terms
  - Task or work group
  - Electronic auctions
- Consummation
  - Electronic payments and fulfillment
- Customer service

Questions

- For both buyer and seller:
  - How does an auction differ from standard pricing/discounting?
  - What impact might recommender systems have?
  - Electronic payments? Bank account transfer authorizations?
<table>
<thead>
<tr>
<th>Opportunities in consumer electronic commerce</th>
<th>Advantages over direct-mail catalog</th>
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<tbody>
<tr>
<td>• Equivalent of sales by direct-mail catalog</td>
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<tr>
<td>– How is it different?</td>
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<tr>
<td>• More ways to match buyer and seller</td>
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<tr>
<td>• More payment options</td>
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<tr>
<td>• Recommender systems</td>
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<td>– What uses?</td>
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<tr>
<td>• Mass customization</td>
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<td>• Superstore: consolidation of suppliers</td>
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<table>
<thead>
<tr>
<th>Matching buyer and seller</th>
<th>Intermediation</th>
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<tr>
<td>• Fixed price</td>
<td>• What intermediaries will be eliminated?</td>
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<td>• Price based on buyer characteristics</td>
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<tr>
<td>– History</td>
<td>• What are legitimate roles for intermediaries in the networked age?</td>
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<tr>
<td>– Demographics</td>
<td>• What are some innovative roles for intermediaries?</td>
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<tr>
<td>– Behavior</td>
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<tr>
<td>– Sequential versioning</td>
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<tr>
<td>• Auctions</td>
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<tr>
<th>Payment options</th>
<th>Recommender systems</th>
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<tr>
<td>• (Topic of Chapter 14)</td>
<td>• Extend and systematize the “reference”</td>
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<td>• Account transfer authorization</td>
<td>• Suggest coupled sales</td>
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<td>• Credit/debit card</td>
<td>• Customer service:</td>
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<tr>
<td>• Digital cash</td>
<td>– discussion forums</td>
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<tr>
<td>– Privacy</td>
<td>– knowledge bases</td>
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<td>• Micropayments</td>
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<td>– Low transaction costs</td>
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<td>– Consolidation</td>
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Mass customization

- Requires supply chain management
- Just-in-time production
- Supplier component integration (e.g. Dell)

Superstore

- Dynamic consolidation of multiple suppliers
- Major application of XML (discussed in Chapter 15)
  - Consistent presentation