Class Announcements

- Business Paper Proposal Due 1/29
- Database Assignment 1 Due 2/3

- Reading for Thursday
  - Messerschmitt Ch 4
E-Commerce Today

• E-commerce: use of the Internet and Web to transact business; digitally enabled transactions.

• Began in 1995 and grew exponentially; still growing even in a recession.

• Companies that survived the dot-com bubble burst and now thrive.

• E-commerce revolution is still in its early stages.
Why E-Commerce Is Different

- **Ubiquity**
  - Internet/Web technology available everywhere: work, home, and so on, anytime.
  - **Effect:**
    - Marketplace removed from temporal, geographic locations to become “marketspace”
    - Enhanced customer convenience and reduced shopping costs
Unique Features of E-commerce Technology

- Richness
  - Supports video, audio, and text messages
  - Effect:
    - Possible to deliver rich messages simultaneously to large numbers
    - Integrated across media
Unique Features of E-commerce Technology

• Interactivity
  • Effect:
    • experience dynamically adjusted to the individual
    • Consumer becomes co-participant in process of delivering goods to market
Unique Features of E-commerce Technology

• Information density
  • Large in amount and quality of information available to all market participants
• Effect:
  • Greater price transparency
  • Greater cost transparency
  • Enables merchants to engage in price discrimination
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
The Benefits of Disintermediation to the Consumer

Figure 9-2

<table>
<thead>
<tr>
<th>Cost per Sweater</th>
</tr>
</thead>
<tbody>
<tr>
<td>$48.50</td>
</tr>
<tr>
<td>$40.34</td>
</tr>
<tr>
<td>$20.45</td>
</tr>
</tbody>
</table>
Key Concepts in E-commerce: Digital Markets and Digital Goods In a Global Marketplace

- Digital goods
  - Goods that can be delivered over a digital network
    - E.g., music tracks, video, software, newspapers, books
  - Cost of producing first unit almost entire cost of product: marginal cost of producing 2nd unit is about zero
  - Costs of delivery over the Internet very low
  - Marketing costs remain the same; pricing highly variable
  - Industries with digital goods are undergoing revolutionary changes (publishers, record labels, etc.)
Types of E-commerce

- Business-to-consumer (B2C)
- Business-to-business (B2B)
- Consumer-to-consumer (C2C)
- Mobile commerce (m-commerce)
E-commerce Business Models

• Portal
• E-tailer
• Content provider
• Transaction broker
• Market creator
• Service provider
• Community provider
E-commerce Revenue Models

- Advertising
- Sales
- Subscription
- Free/Freemium
- Transaction fee
- Affiliate
Web 2.0, Social Networking, and the Wisdom of Crowds

- Most popular Web 2.0 service: social networking
  - Social networking sites sell banner ads, user preference information, and music, videos and e-books.
- Social shopping sites
  - Swap shopping ideas with friends (Kaboodle, ThisNext)
- Wisdom of crowds
  - Large numbers of people can make better decisions about topics and products than a single person.
- Prediction markets: peer-to-peer betting markets on specific outcomes (elections, sales figures, designs for new products)
E-commerce Marketing

- Internet provides marketers with new ways of identifying and communicating with customers.
- Long tail marketing: ability to reach a large audience inexpensively.
- Behavioral targeting: tracking online behavior of individuals on thousands of Web sites.
- Advertising formats include search engine marketing, display ads, rich media, and e-mail.
How an Advertising Network Works

**MERCHAND SITE**
- Merchant server connects to DoubleClick ad server

**ADVERTISING NETWORK**
- Ad server reads cookie; checks database for profile
- Ad server selects and serves an appropriate banner ad based on profile
- Network Member Firms
- DoubleClick follows consumer from site to site through use of Web bugs

**CONSUMER**
- Consumer requests Web page from ad network member site

(DoubleClick.Net)
Networked Computing in direct Procurement

- History predates Internet
- **Electronic Data Interchange** (EDI)
  - Exchange order information between firms involved in direct procurement
  - Usually large firms who could afford proprietary communication links
  - Initially order and invoice
  - Existed since 70’s
Business-to-Business Electronic Commerce: New Efficiencies and Relationships

• Electronic data interchange (EDI)
  
  • Major industries have EDI standards that define structure and information fields of electronic documents for that industry.
  
  • More companies increasingly moving away from private networks to Internet for linking to other firms.
Companies use EDI to automate transactions for B2B e-commerce and continuous inventory replenishment.
Business-to-Business Electronic Commerce: New Efficiencies and Relationships

- Private industrial networks (private exchanges)
  - Large firm using extranet to link to its suppliers, distributors, and other key business partners
- Owned by buyer
- Permits sharing of:
  - Product design and development
  - Marketing
  - Production scheduling and inventory management
  - Unstructured communication (graphics and e-mail)
Figure 9-6: A Private Industrial Network

- Firm
- Suppliers
- Distributors
Business-to-Business Electronic Commerce: New Efficiencies and Relationships

- Net marketplaces (e-hubs)
  - Single market for many buyers and sellers.
  - Industry-owned or owned by independent intermediary.
  - Generate revenue from transaction fees, other services.
  - Use prices established through negotiation, auction, RFQs, or fixed prices.
  - May focus on direct or indirect goods.
  - May be vertical or horizontal marketplaces.
Business-to-Business Electronic Commerce: New Efficiencies and Relationships

- Exchanges
  - Independently owned third-party Net marketplaces.
  - Connect thousands of suppliers and buyers for spot purchasing.
  - Typically provide vertical markets for direct goods for single industry (food, electronics).
Although m-commerce represents a small fraction of total e-commerce transactions, revenue has been steadily growing.

- Location-based services
- Banking and financial services
- Wireless advertising
- Games and entertainment
M-commerce sales represent a small fraction of total e-commerce sales, but that percentage is steadily growing. (Totals for 2007–2008 are estimated.)

Figure 9-9

Consolidated Mobile Commerce Revenues
Pieces of the Site-Building Puzzle

• Assembling a team with the skills required to make decisions about:
  • Technology
  • Site design
  • Social and information policies
  • Hardware, software, and telecommunications infrastructure

• Customer’s demands should drive the site’s technology and design.
Business Objectives, System Functionality, And Information Requirements

• Business decisions drive the technology—not the reverse.
• Example:
  • Business objective: execute a transaction payment
  • System functionality to achieve this objective: a shopping cart or other payment system
  • Information requirements: secure credit card clearing, multiple payment options
Building the Web Site: In-house Versus Outsourcing

Choices:

- Completely in-house
  - Building and hosting within the company
- Mixed responsibility
  - Building within the company, hosting outside
  - Hosting within the company, building outside
- Completely outsourced
  - Outsourcing both building and hosting of the site
- Co-location
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Publishing as Prentice Hall