Class Announcements

- Business Paper Proposal Due TODAY!
- Database Assignment 1 Due 2/9
- 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.
The Growth of E-Commerce

Figure 9-1

Revenue (Billions)


Year
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
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
The Benefits of Disintermediation to the Consumer

Figure 9-2

- Manufacturer → Distributor → Retailer → Customer
  - Cost per Sweater: $48.50
- Manufacturer → Retailer → Customer
  - Cost per Sweater: $40.34
- Manufacturer → Customer
  - Cost per Sweater: $20.45
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.
Web Site Visitor Tracking

The shopper clicks on the home page. The store can tell that the shopper arrived from the Yahoo! portal at 2:30 PM (which might help determine staffing for customer service centers) and how long she lingered on the home page (which might indicate trouble navigating the site).

The shopper clicks on blouses, clicks to select a woman’s white blouse, then clicks to view the same item in pink. The shopper clicks to select this item in a size 10 in pink and clicks to place it in her shopping cart. This information can help the store determine which sizes and colors are most popular.

From the shopping cart page, the shopper clicks to close the browser to leave the Web site without purchasing the blouse. This action could indicate the shopper changed her mind or that she had a problem with the Web site’s checkout and payment process. Such behavior might signal that the Web site was not well designed.
Firms can create unique personalized Web pages that display content or ads for products or services of special interest to individual users, improving the customer experience and creating additional value.

Figure 9-4
How an Advertising Network Works

- **Merchant Site**
  - Merchant server connects to DoubleClick ad server
  - Ad server selects and serves an appropriate banner ad based on profile
  - Consumer requests Web page from ad network member site

- **Advertising Network**
  - Ad server reads cookie; checks database for profile
  - DoubleClick follows consumer from site to site through use of Web bugs

- **User Profile Database**
- **Network Member Firms**
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.
Business-to-Business Electronic Commerce: New Efficiencies and Relationships

- Electronic data interchange (EDI)
  - Computer-to-computer exchange of standard transactions such as invoices, purchase orders.
  - 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.
    - E.g., procurement: businesses can now use Internet to locate most low-cost supplier, search online catalogs of supplier products, negotiate with suppliers, place orders, and so on
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)
A Private Industrial Network

Figure 9-6
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.
Net marketplaces are online marketplaces where multiple buyers can purchase from multiple sellers.

Figure 9-7
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).
M-Commerce Services and Applications

- 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
In Class Exercise

- Use a laptop or phone and log in to Alibaba.com
- Pretend you are a small business in the US needing cheap products. Do a search, and say what your “story” is.
  - E.g. “We pretend to be a retailer aiming to sell political merchandise. We’ll search for ‘Make America Great Again’ “
  - E.g. “We pretend to be a contractor looking for cheap supplies. We’ll Search for “toilet.”
  - E.g. “We pretend to be a beach shop selling tourist goods. We’ll search for “sunglasses.”
- How do the prices you get compare to retail prices? Are there minimum quantities to make an order?
- Are the first listings from “gold” suppliers?
- Do these suppliers seem to be large companies or small to medium sized?