Chapter 1

The Revolution Is Just Beginning
MySpace and Facebook: It’s All About You
Class Discussion

- What was the idea behind the creation of MySpace?
- How is Facebook different from MySpace?
- Have you used MySpace or Facebook, and if so, how often? What was your experience?
- Do you think Facebook will overtake MySpace as the most popular social networking site in the United States?
What is E-commerce?

- Involves *digitally enabled commercial transactions* between and among organizations and individuals
  
  - *Digitally enabled transactions* include all transactions mediated by digital technology
  
  - *Commercial transactions* involve the exchange of value across organizational or individual boundaries in return for products or services
E-commerce vs. E-business

- **E-business:**
  - Digital enablement of transactions and processes within a firm, involving information systems under firm’s control
  - Does not include commercial transactions involving an exchange of value across organizational boundaries
The Difference Between E-commerce and E-Business
Why Study E-commerce?

- E-commerce technology is different and more powerful than any of the other technologies that we have seen in the past century.
- E-commerce brought shift in commerce (transform vs. shape)
- E-commerce has challenged much traditional business thinking (mass marketing, sales force-driven, passive trapped consumers, information asymmetry vs. price competitiveness, one national price vs. dynamic pricing, huge production vs. customization & personalization)
- E-commerce has a number of unique features
Unique Features of E-commerce Technology

- Ubiquity (anywhere/anytime)
- Global Reach (no boundaries)
- Universal Standards (common standards)
- Richness (video/audio/text)
- Interactivity (technology interacts with user)
- Information Density (reduces information cost/raises quality)
- Personalization (personal messages on mass level)
  /customization (user preference)
- Social Technology (content generation/social networks)
Global Reach
Universal Standards
Interactivity
Personalization
User Generated Content
Web 2.0

• The “new” Web
• Applications and technologies that allow users to:
  • create, edit, and distribute content
  • share preferences, bookmarks, and online personas
  • participate in virtual lives
  • Build online communities
• Examples
  • YouTube, Photobucket, Flickr
  • MySpace, Facebook, LinkedIn
  • Second Life
  • Wikipedia
Web2.0 features

- Depend on user to create content (consumer-generated content)
- Easy research capability
- Highly interactive
- Depend on broadband connectivity
- Marginally profitable
- Attract large audience
- Opportunities for targeted marketing and advertising
Types of E-commerce

- Classified by nature of market relationship
  - Business-to-Consumer (B2C)
  - Business-to-Business (B2B)
  - Consumer-to-Consumer (C2C)

- Classified by type of technology used
  - Peer-to-Peer (P2P)
  - Mobile commerce (M-commerce)
Business-to-Consumer E-commerce

- Most commonly discussed type
- Online businesses attempt to reach individual consumers
Business-to-Business E-commerce

- Businesses focus on sell to other businesses
- Largest form of e-commerce
Consumer-to-Consumer E-commerce

- Provide a way for consumers to sell to each other

- Consumer:
  - prepares the product for market
  - places the product for auction or sale
  - relies on market maker to provide catalog, search engine, and transaction clearing capabilities
Peer-to-Peer E-commerce

- Enables Internet users to share files and computer resources without having to go through a central Web server.
Mobile E-commerce

- Wireless digital devices enable transactions on the Web
- Uses personal digital assistants (PDAs) to connect
- Used most widely in Japan and Europe
Potential Limitations on the Growth of B2C E-commerce

- Expensive technology - Although currently a limitation, may become less so as prices of entry-level PCs fall.
- Sophisticated skill set - This limitation may recede as PC operating system evolves, becomes more simple.
- Persistent cultural attraction of physical markets and traditional shopping experiences.
- Persistent global inequality limiting access to telephones and computers.

- For computer scientist and information technologists
  - Vindication of a set of information technologies developed over 40 years
  - Extending from the early Internet to the PC and local area networks
  - The vision of universal communications

For economists

Raised realistic prospect of perfect competitive market
where price, cost, and quality information is equally distributed
where a nearly infinite set of suppliers compete against one another
where customers have access to all relevant market information worldwide
Merchants have equal direct access to hundreds of millions of customers

- Disintermediation: displacement of market middlemen who traditionally are intermediaries between producers and consumers by a new direct relationship between manufacturers and content originators with their customers.

- Friction-free commerce: a vision of commerce in which:
  - information is equally distributed
  - transaction costs are low
  - prices can be dynamically adjusted to reflect actual demand
  - intermediaries decline
  - unfair competitive advantages are eliminated

- First mover: a firm that is first to market in a particular area and that moves quickly to gather market share
- Network effect: occurs where users receive value from the fact that everyone else uses the same tool or product

- Computer scientists: Envisioned an inexpensive, universal communications and computing environment accessible by all
- Economists: A nearly perfect competitive market and friction-free commerce
- For entrepreneurs: An extraordinary opportunity to earn far above normal returns on investment
E-commerce: 2000-2006

- Emphasis shifted to a more business driven approach rather than technology driven.
- Large traditional firms learned how to use the web to strengthen their market position
- Brand extension
E-commerce: 2006-present

- It involves the extension of new business models based on consumer generated content, social networking and virtual online lives.
## Evolution of e-commerce

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<td>Business-driven</td>
<td>Audience, customers &amp;</td>
<td>Audience, customers &amp; community driven</td>
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<td>Revenue growth</td>
<td>Earnings &amp; profit</td>
<td>Audience &amp; social network</td>
<td>Audience &amp; social network growth emphasis</td>
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<td>Venture Capital</td>
<td>Traditional financing</td>
<td>Smaller VC investment, early</td>
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<td>small form buyout by large</td>
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<td>Ungoverned</td>
<td>Stronger regulation &amp;</td>
<td>Extensive government</td>
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<td>Entrepreneurial</td>
<td>Large traditional firms</td>
<td>Large pure web-based firms</td>
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<td>Disintermediation</td>
<td>Strengthening intermediaries</td>
<td>Proliferation of small online</td>
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<tr>
<td><strong>Perfect market</strong></td>
<td>Imperfect markets, brands &amp; network effect</td>
<td>Continuation of online market imperfections; commodity competition in select markets</td>
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<td><strong>Pure online strategies</strong></td>
<td>Mixed “bricks &amp; clicks” strategies</td>
<td>Return of pure online strategies in new markets; extension of brocks &amp; clicks in traditional retail markets</td>
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<td><strong>First mover advantage</strong></td>
<td>Strategic follower strength, complimentary assets</td>
<td>First-mover advantages return in new markets as traditional web players catch up</td>
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<td><strong>Low complexity retail products</strong></td>
<td>High complexity retail products</td>
<td>Services</td>
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Assessing E-commerce: Successes, Surprises and Failures

- Stunning technological success
- A mixed success from business perspective
- Many early visions not fulfilled
  - Friction-free commerce
    - Consumers less price-sensitive than expected
    - Considerable price dispersion remains
  - Perfect competition
    - Transaction costs still high
    - Intermediaries remain
MY SON WANTS TO BE A LAWYER.

MY SON WANTS TO BE A DOCTOR.

MY SON WANTS TO SELL HIS WEBSITE TO GOOGLE.
Insight on Society
Holding On to Your Privacy Online
Class Discussion

- What techniques of privacy invasion are described in the case?
- Which of these techniques is the most privacy-invading? Why?
- Is the Internet and e-commerce any different than traditional markets with respect to privacy? Don’t merchants always want to know their customer?
- How do you protect your privacy on the Web?
Insight on Technology:
Spider Webs, Bow Ties, Scale-Free Networks, and the Deep Web
Class Discussion

• What is the “small world” theory of the Web?
• What is the significance of the “bow-tie” form of the Web?
• Why does Barabasi call the Web a “scale-free network” with “very connected super nodes”?
IN 44 Million Nodes

SCC 56 Million Nodes

OUT 44 Million Nodes

Tendrils 43 Million Nodes

Tubers

Disconnected components
(a) Random network

(b) Scale-free network