

# 電子商務安全

## Secure Electronic Commerce

### 電子市集 (E-Marketplaces)

992SEC03

TGMXM0A

Fri. 6,7,8 (13:10-16:00) L526

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# Syllabus

- | 週次 | 月／日       | 內容 (Subject/Topics)  |
|----|-----------|--|
| 1  | 100/02/18 | 電子商務安全課程簡介<br>(Course Orientation for Secure Electronic Commerce)                    |
| 2  | 100/02/25 | 電子商務概論 (Introduction to E-Commerce)  |
| 3  | 100/03/04 | 電子市集 (E-Marketplaces)  |
| 4  | 100/03/11 | 電子商務環境下之零售：產品與服務<br>(Retailing in Electronic Commerce: Products and Services)        |
| 5  | 100/03/18 | 網路消費者行為、市場研究與廣告<br>(Online Consumer Behavior, Market Research, and<br>Advertisement) |
| 6  | 100/03/25 | 電子商務 B2B、B2C、C2C (B2B, B2C, C2C E-Commerce)  |
| 7  | 100/04/01 | Web 2.0, Social Network, Social Media  |
| 8  | 100/04/08 | 教學行政觀摩日  |
| 9  | 100/04/15 | 行動運算與行動商務 (Mobile Computing and Commerce)  |
| 10 | 100/04/22 | 期中考試週  |

# Syllabus (cont.)

週次	月／日	內容 (Subject/Topics)
11	100/04/29	電子商務安全 (E-Commerce Security)
12	100/05/06	數位憑證 (Digital Certificate)
13	100/05/13	網路與網站安全 (Network and Website Security)
14	100/05/20	交易安全、系統安全、IC卡安全、電子付款 (Transaction Security, System Security, IC Card Security, Electronic Commerce Payment Systems)
15	100/05/27	行動商務安全 (Mobile Commerce Security)
16	100/06/03	電子金融安全控管機制 (E-Finance Security Control Mechanisms)
17	100/06/10	營運安全管理 (Operation Security Management)
18	100/06/17	期末考試週

# **Chapter 2**

## **E-Marketplaces:**

### **Mechanisms, Tools, and**

### **Impacts of E-Commerce**

Source: Turban et al.,  
Introduction to Electronic Commerce,  
Third Edition, 2010, Pearson

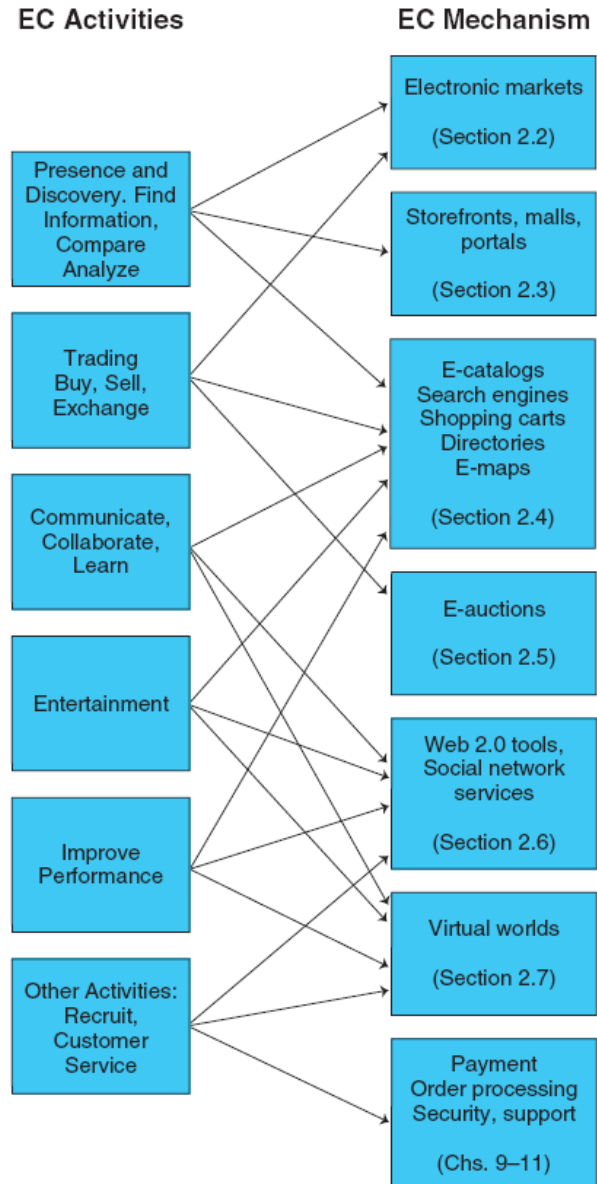
# LEARNING OBJECTIVES

1. Describe the major electronic commerce (EC) activities and processes and the mechanisms that support them.
2. Define e-marketplaces and list their components.
3. List the major types of e-marketplaces and describe their features.
4. Describe electronic catalogs, search engines, and shopping carts.

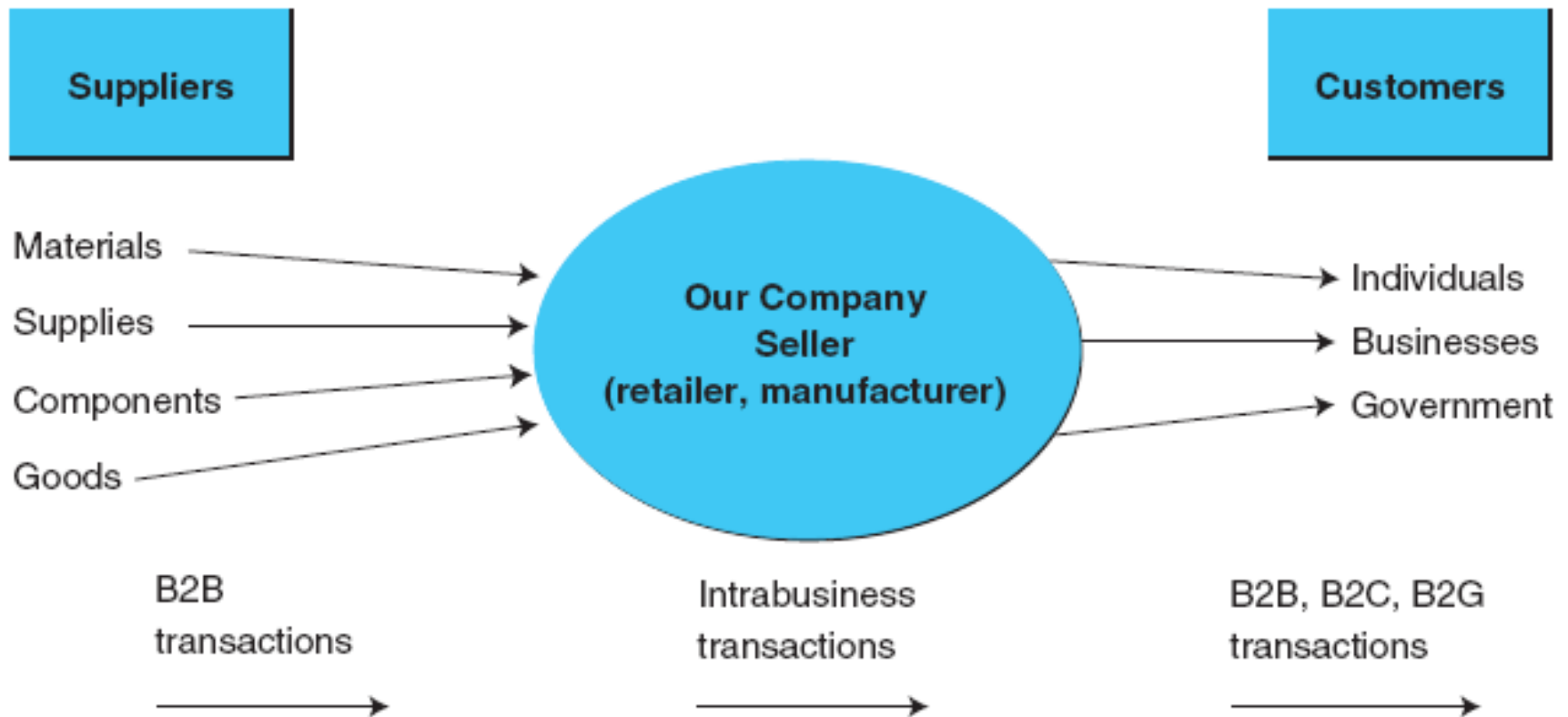
# LEARNING OBJECTIVES

5. Describe the major types of auctions and list their characteristics.
6. Discuss the benefits, limitations, and impacts of auctions.
7. Describe bartering and negotiating online.
8. List the major Web 2.0 tools and their use in EC.
9. Understand virtual worlds and their use in EC.

# The EC Activities–Mechanism Connection



## EXHIBIT 2.2 EC Activities



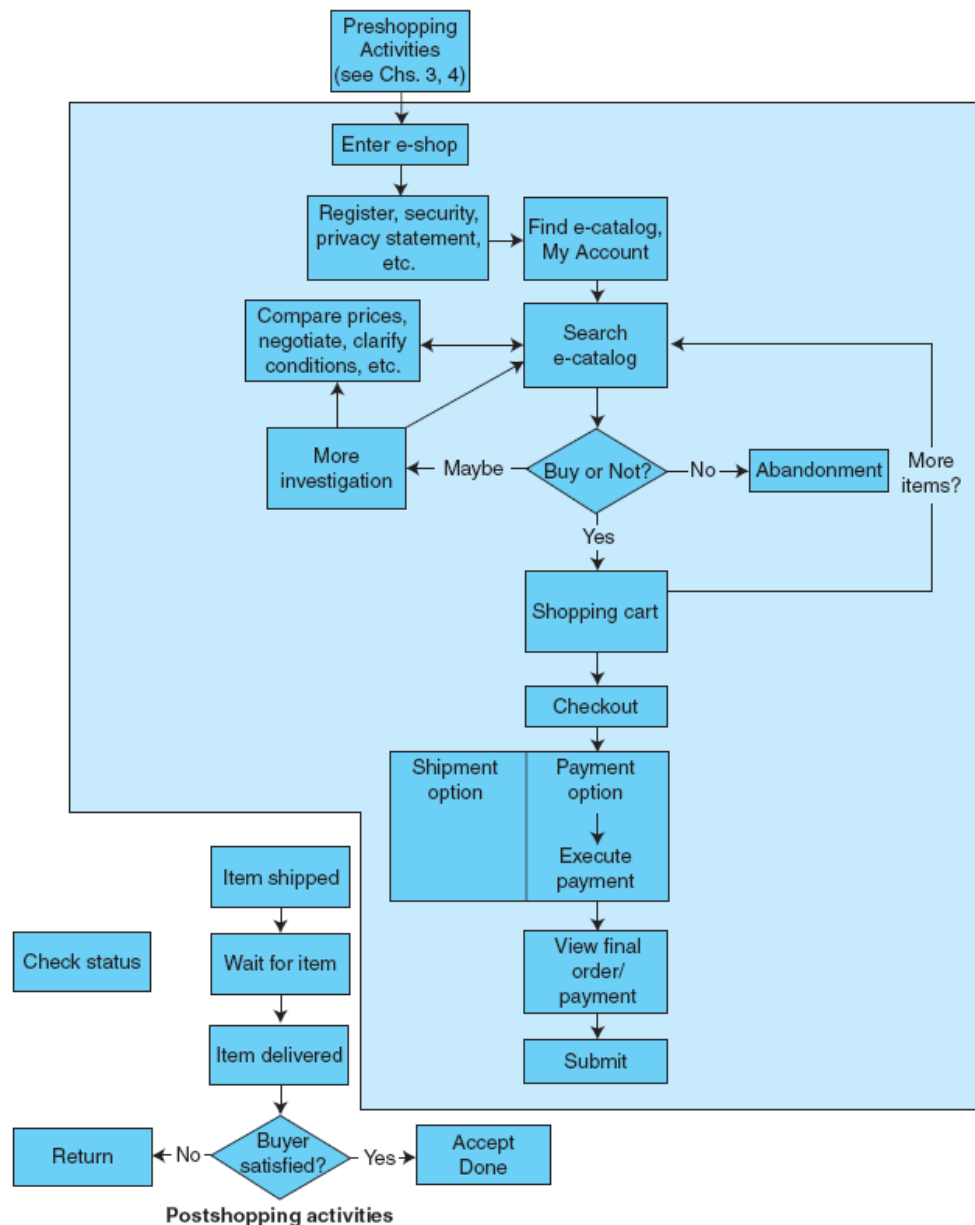


# E-MARKETPLACES

- **e-marketplace**

An online market, usually B2B, in which buyers and sellers exchange goods or services; the three types of e-marketplaces are private, public, and consortia.

# EXHIBIT 2.3 Buying Process in an E-Market



## EXHIBIT 2.4 Functions of a Market

Matching of Buyers and Sellers	Facilitation of Transactions	Institutional Infrastructure
<ul style="list-style-type: none"> <li>• Determination of product offerings               <ul style="list-style-type: none"> <li>Product features offered by sellers</li> <li>Aggregation of different products</li> </ul> </li> <li>• Search (of buyers for sellers and of sellers for buyers)               <ul style="list-style-type: none"> <li>Price and product information</li> <li>Organizing bids and bartering</li> <li>Matching seller offerings with buyer preferences</li> </ul> </li> <li>• Price discovery               <ul style="list-style-type: none"> <li>Process and outcome in determination of prices</li> <li>Enabling price comparisons</li> </ul> </li> <li>• Others               <ul style="list-style-type: none"> <li>Providing sales leads</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Logistics               <ul style="list-style-type: none"> <li>Delivery of information, goods, or services to buyers</li> </ul> </li> <li>• Settlement               <ul style="list-style-type: none"> <li>Transfer of payments to sellers</li> </ul> </li> <li>• Trust               <ul style="list-style-type: none"> <li>Credit system, reputations, rating agencies such as <i>Consumer Reports</i> and the BBB, special escrow and online trust agencies</li> </ul> </li> <li>• Communication               <ul style="list-style-type: none"> <li>Posting buyers' requests</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Legal               <ul style="list-style-type: none"> <li>Commercial code, contract law, dispute resolution, intellectual property protection</li> </ul> </li> <li>• Regulatory               <ul style="list-style-type: none"> <li>Rules and regulations, compliance, monitoring, enforcement</li> </ul> </li> <li>• Discovery               <ul style="list-style-type: none"> <li>Provides market information (e.g., about competition, government regulations)</li> </ul> </li> </ul>

# E-MARKETPLACES

- **marketspace**

A marketplace in which sellers and buyers exchange goods and services for money (or for other goods and services), but do so electronically.

# E-MARKETPLACES

- **E-MARKETPLACE COMPONENTS AND PARTICIPANTS**

- **Customers**

- **Sellers**

- **Products and services**

- **digital products**

- Goods that can be transformed to digital format and delivered over the Internet.

- **Infrastructure**

# E-MARKETPLACES

- **front end**

The portion of an e-seller's business processes through which customers interact, including the seller's portal, electronic catalogs, a shopping cart, a search engine, and a payment gateway.

- **back end**

The activities that support online order fulfillment, inventory management, purchasing from suppliers, payment processing, packaging, and delivery.

- **intermediary**

A third party that operates between sellers and buyers.

# E-MARKETPLACES

- **disintermediation**

Elimination of intermediaries between sellers and buyers.

# E-MARKETPLACES

- **TYPES OF E-MARKETPLACES**

- **Private E-Marketplaces**

- **sell-side e-marketplace**

- A private e-marketplace in which one company sells either standard and/or customized products to qualified companies.

- **buy-side e-marketplace**

- A private e-marketplace in which one company makes purchases from invited suppliers.

- **Public E-Marketplaces**



# CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS

- **Webstore (storefront)**

A single company's Web site where products or services are sold and usually has an online shopping cart associated with it. Many Webstores target a specific industry and find their own unique corner of the market.

# **CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS**

- **ELECTRONIC MALLS AND LARGE RETAILERS**

- **e-mall (online mall)**

- An online shopping center where many online stores are located.

- **TYPES OF STORES AND MALLS**

- General stores/malls

- Specialized stores/malls

- Regional versus global stores

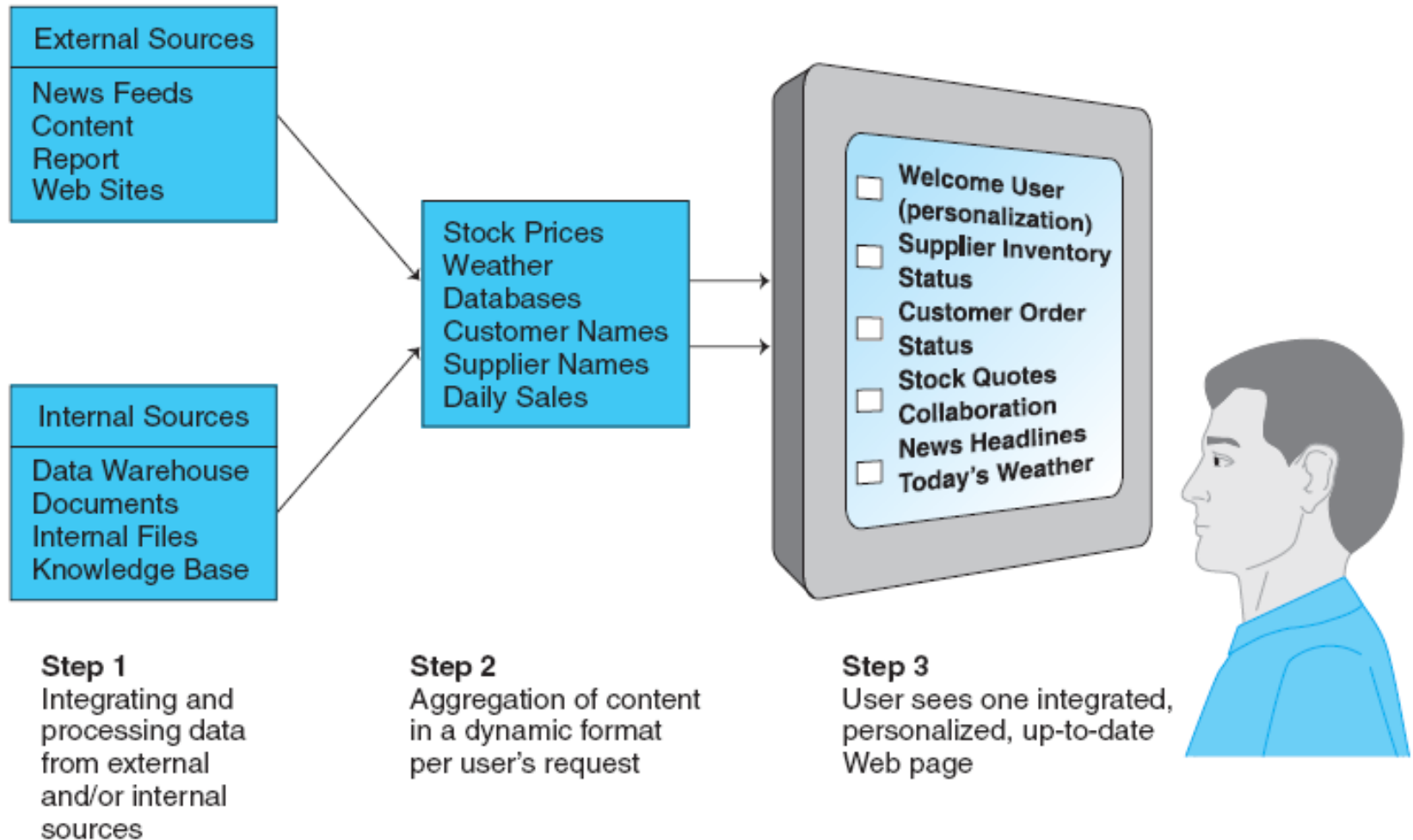
- Pure-play versus click-and-mortar stores

# CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS

- **Web (information) portal**

A single point of access, through a Web browser, to critical business information located inside and outside (via Internet) an organization.

## EXHIBIT 2.5 How a Portal Works



# CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS

- **Types of Portals**

- Commercial (public) portals

- Corporate portals

- Publishing portals

- Personal portals

- **mobile portal**

- A portal accessible via a mobile device.

- **voice portal**

- A portal accessed by telephone or cell phone.

- Knowledge portals

# **CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS**

- **THE ROLES AND VALUE OF INTERMEDIARIES  
IN E-MARKETPLACES**

- **Brokers**

- Buy/sell fulfillment
- Virtual mall
- Metamediary
- Comparison agent
- Shopping facilitator
- Matching services

# CUSTOMER INTERACTION MECHANISMS: STOREFRONTS, MALLS, AND PORTALS

- **infomediaries**

Electronic intermediaries that provide and/or control information flow in cyberspace, often aggregating information and selling it to others.

- **e-distributor**

An e-commerce intermediary that connects manufacturers with business buyers (customers) by aggregating the catalogs of many manufacturers in one place—the intermediary's Web site.

# **ELECTRONIC CATALOGS, SEARCH ENGINES, AND SHOPPING CARTS**

- **electronic catalogs (e-catalogs)**

The presentation of product information in an electronic form; the backbone of most e-selling sites.



**EXHIBIT 2.6****Comparison of Online Catalogs with Paper Catalogs**

Type	Advantages	Disadvantages
Paper catalogs	<ul style="list-style-type: none"><li>• Easy to create without high technology</li><li>• Reader is able to look at the catalog without computer system</li><li>• More portable than electronic</li></ul>	<ul style="list-style-type: none"><li>• Difficult to update changed product information promptly</li><li>• Only a limited number of products can be displayed</li><li>• Limited information through photographs and textual description is available</li><li>• No possibility for advanced multimedia such as animation and voice</li></ul>
Online catalogs	<ul style="list-style-type: none"><li>• Easy to update product information</li><li>• Able to integrate with the purchasing process</li><li>• Good search and comparison capabilities</li><li>• Able to provide timely, up-to-date product information</li><li>• Provision for globally broad range of product information</li><li>• Possibility of adding on voice and animated pictures</li><li>• Long-term cost savings</li><li>• Easy to customize</li><li>• More comparative shopping</li><li>• Ease of connecting order processing, inventory processing, and payment processing to the system</li></ul>	<ul style="list-style-type: none"><li>• Difficult to develop catalogs, large fixed cost</li><li>• Need for customer skill to deal with computers and browsers</li></ul>

# ELECTRONIC CATALOGS, SEARCH ENGINES, AND SHOPPING CARTS

- **EC SEARCH ACTIVITIES, TYPES, AND ENGINES**

- **Types of EC Searches**

- **Internet/Web Search**
- **enterprise search**

The practice of identifying and enabling specific content across the enterprise to be indexed, searched, and displayed to authorized users.

# ELECTRONIC CATALOGS, SEARCH ENGINES, AND SHOPPING CARTS

- **desktop search**

Search tools that search the contents of a user's or organization's computer files, rather than searching the Internet. The emphasis is on finding all the information that is available on the user's PC, including Web browser histories, e-mail archives, and word processed documents, as well as in all internal files and databases.

- **search engine**

A computer program that can access databases of Internet resources, search for specific information or key words, and report the results.

- **Software (Intelligent) Agents**

- **Voice-Powered Search**

# ELECTRONIC CATALOGS, SEARCH ENGINES, AND SHOPPING CARTS

- **electronic shopping cart**

An order-processing technology that allows customers to accumulate items they wish to buy while they continue to shop.

- **Product Configuration**

# AUCTIONS, BARTERING, AND NEGOTIATING ONLINE

- **auction**

A competitive process in which a seller solicits consecutive bids from buyers (forward auctions) or a buyer solicits bids from sellers (backward auctions). Prices are determined dynamically by the bids.

# **AUCTIONS, BARTERING, AND NEGOTIATING ONLINE**

- **TRADITIONAL AUCTIONS VERSUS E-AUCTIONS**
  - **Limitations of Traditional Offline Auctions**
  - **electronic auctions (e-auctions)**

Auctions conducted online.
- **INNOVATIVE AUCTIONS**

# **AUCTIONS, BARTERING, AND NEGOTIATING ONLINE**

- **dynamic pricing**

Prices that change based on supply and demand relationships at any given time.

- **TYPES OF AUCTIONS**

- **One Buyer, One Seller**

- **One Seller, Many Potential Buyers**

- **forward auction**

- An auction in which a seller entertains bids from buyers. Bidders increase price sequentially.

# **AUCTIONS, BARTERING, AND NEGOTIATING ONLINE**

## **– One Buyer, Many Potential Sellers**

- **reverse auction (bidding or tendering system)**

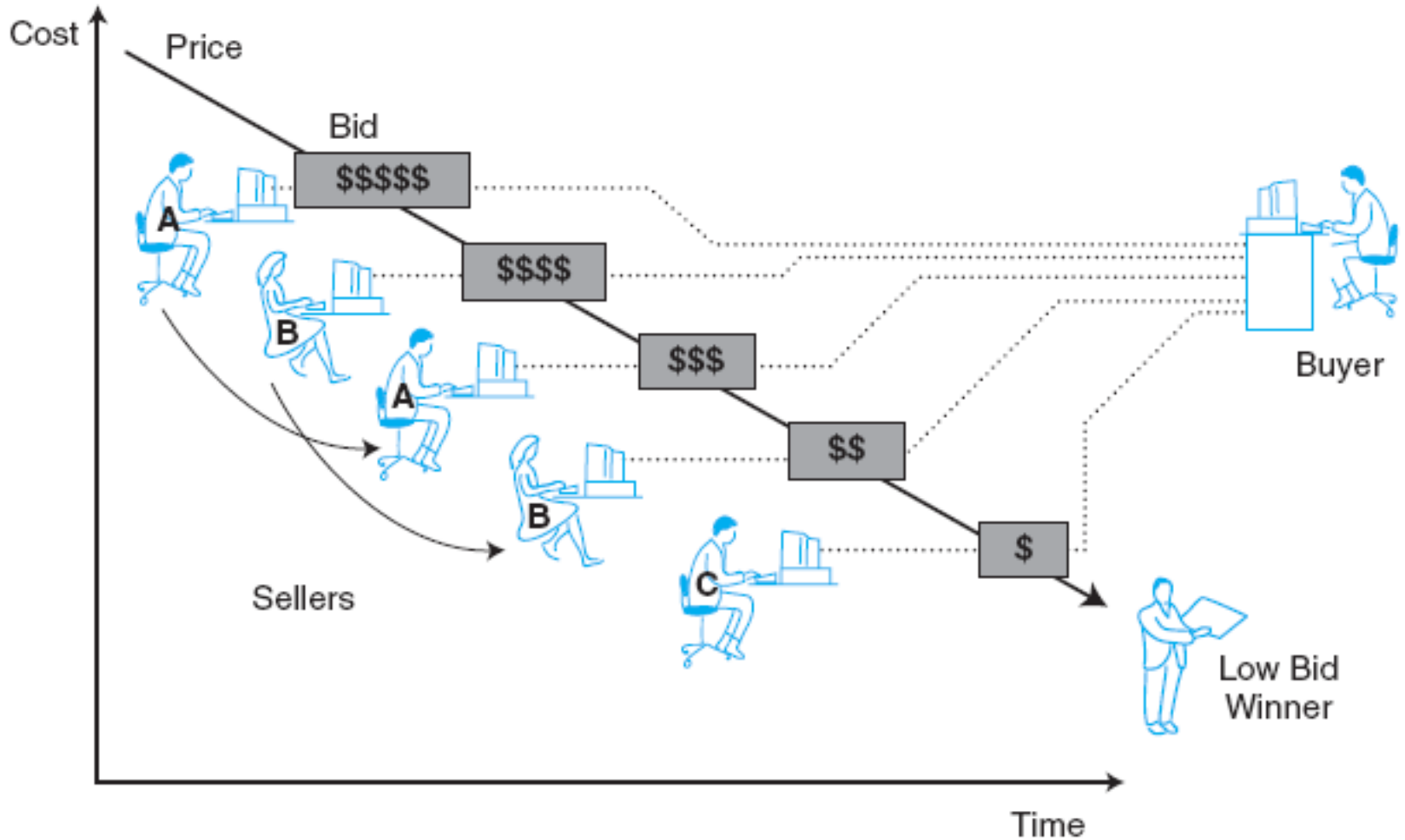
Auction in which the buyer places an item for bid (tender) on a request for quote (RFQ) system, potential suppliers bid on the job, with the price reducing sequentially, and the lowest bid wins; primarily a B2B or G2B mechanism.

- **name-your-own-price model**

Auction model in which a would-be buyer specifies the price (and other terms) he or she is willing to pay to any willing and able seller. It is a C2B model that was pioneered by Priceline.com.



# EXHIBIT 2.7 The Reverse Auction Process



# AUCTIONS, BARTERING, AND NEGOTIATING ONLINE

## – Many Sellers, Many Buyers

- **double auction**

An auction in which multiple buyers and their bidding prices are matched with multiple sellers and their asking prices, considering the quantities on both sides.

## EXHIBIT 2.8 Benefits of E-Auctions

Benefits to Sellers	Benefits to Buyers	Benefits to E-Auctioneers
<ul style="list-style-type: none"><li>• Increased revenues from broadening bidder base and shortening cycle time. Can sell anywhere globally.</li><li>• Opportunity to bargain instead of selling at a fixed price. Can sell any time and conduct frequent auctions.</li><li>• Optimal price setting determined by the market (more buyers, more information).</li><li>• Sellers can gain more customer dollars by offering items directly (saves on the commission to intermediaries; also, physical auctions are very expensive compared with e-auctions).</li><li>• Can liquidate large quantities quickly.</li><li>• Improved customer relationship and loyalty (in the case of specialized B2B auction sites and electronic exchanges).</li></ul>	<ul style="list-style-type: none"><li>• Opportunities to find unique items and collectibles.</li><li>• Entertainment. Participation in e-auctions can be entertaining and exciting.</li><li>• Convenience. Buyers can bid from anywhere, even with a cell phone; they do not have to travel to an auction place.</li><li>• Anonymity. With the help of a third party, buyers can remain anonymous.</li><li>• Possibility of finding bargains, for both individuals and organizations.</li></ul>	<ul style="list-style-type: none"><li>• Higher repeat purchases. Jupiter Research (<i>jupiterresearch.com</i>) found that auction sites, such as eBay, tend to garner higher repeat-purchase rates than the top B2C sites, such as Amazon.com.</li><li>• High “stickiness” to the Web site (the tendency of customers to stay at sites longer and come back more often). Auction sites are frequently “stickier” than fixed-priced sites. Stickier sites generate more ad revenue for the e-auctioneer.</li><li>• Easy expansion of the auction business.</li></ul>

# **AUCTIONS, BARTERING, AND NEGOTIATING ONLINE**

## **– Limitations of E-Auctions**

- Minimal Security
- Possibility of Fraud
- Limited Participation

## **– Impacts of Auctions**

- Auctions as a Social Mechanism to Determine a Price
- Auctions as a Highly Visible Distribution Mechanism
- Auctions as an EC Component in a Business Model
- Auctions for Profit for Individuals

# AUCTIONS, BARTERING, AND NEGOTIATING ONLINE

- **bartering**

The *exchange of goods* and services.

- **e-bartering (electronic bartering)**

Bartering conducted online, usually in a bartering exchange.

- **bartering exchange**

A marketplace in which an intermediary arranges barter transactions.

## ONLINE NEGOTIATING

# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

- **BLOGGING (WEBLOGGING)**

- **blog**

- A personal Web site that is open to the public to read and to interact with; dedicated to specific topics or issues.

- **vlog (or video blog)**

- A blog with video content.

- **Building Effective Blogs**

# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

## – **microblogging**

A form of blogging that allows users to write messages (usually up to 140 characters) and publish them, either to be viewed by anyone or by a restricted group that can be chosen by the user. These messages can be submitted by a variety of means, including text messaging, instant messaging, e-mail, MP3, or just on the Web.

# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

- **Twitter**

A free microblogging service that allows its users to send and read other users' updates.

- **tweets**

Text-based posts up to 140 characters in length posted to Twitter.

- **Commercial Uses of Blogs**

- **Potential Risks of Corporate Blogs**



# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

- **MECHANISM AIDS FOR WEB 2.0 TOOLS:  
TAGS, FOLKSONOMY, AND SOCIAL  
BOOKMARKS**

- **tag**

A nonhierarchical keyword or term assigned to a piece of information (such as an Internet bookmark, digital image, video clip, or any computer document).

# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

- **folksonomy (collaborative tagging, social classification, social indexing, social tagging)**

The practice and method of collaboratively creating, classifying, and managing tags to annotate and categorize content.

- **social bookmarking**

Web service for sharing Internet bookmarks. The sites are a popular way to store, classify, share, and search links through the practice of folksonomy techniques on the Internet and intranets.

# WEB 2.0 TOOLS AND SERVICES: FROM BLOGS TO WIKIS TO TWITTER

- **wiki (wikilog)**

A blog that allows everyone to participate as a peer; anyone may add, delete, or change content.

- **SOCIAL NETWORK SERVICES**

# VIRTUAL WORLDS AS AN ELECTRONIC COMMERCE MECHANISM

- **Avatars**

Animated computer characters that exhibit humanlike movements and behaviors.



Source: <http://genkiboy83.pixnet.net/blog/category/1374257>

# BUSINESS ACTIVITIES AND VALUE IN VIRTUAL WORLDS

1. Creating and managing a virtual business
2. Conducting regular business activities
3. Providing services for those who build, manage, or make money with virtual properties

# MANAGERIAL ISSUES

1. Should we auction?
2. Should we barter?
3. How do we select merchant software?
4. How can we use Web 2.0 tools?
5. Shall we take part in virtual worlds?

# References

- Turban et al., Introduction to Electronic Commerce, Third Edition, 2010, Pearson