The Problem/Opportunity
Founded in 1985 by Michael Dell, Dell Computer Corp. (now known as Dell) was the first company to offer personal computers (PCs) via mail order. Dell designed its own PC system (with an Intel 8088 processor running at 8 MHz) and allowed customers to configure their own customized systems using the build-to-order concept. This concept was, and is still, Dell’s cornerstone business model. By 1993, Dell had become one of the top five computer makers worldwide, threatening Compaq, which started a price war. At that time, Dell was taking orders by fax and snail mail and losing money. Losses reached over $100 million by 1994. The company was in trouble.

The Solution
Direct Marketing Online. The commercialization of the Internet in the early 1990s and the introduction of the World Wide Web in 1993 provided Dell with an opportunity to expand rapidly. Dell implemented aggressive online order taking and opened subsidiaries in Europe and Asia. Dell also started to offer additional products on its website. This enabled Dell to batter Compaq, and in 2000 Dell became number one in worldwide PC shipments. At that time, Internet sales topped $50 million per day (about $18 billion per year). Today, Dell (dell.com) sells about $62 billion a year in computer-related products online, from network switches to printers, employing over 88,000 people.

Direct online marketing is Dell’s major electronic commerce (EC) activity. Dell sells to the following groups:

- Individuals for their homes and home offices
- Small businesses (up to 200 employees)
- Medium and large businesses (over 200 employees)
- Government, education, and health care organizations

Sales to the first group are classified as business-to-consumer (B2C). Sales to the other three groups are classified as business-to-business (B2B). Consumers shop at dell.com using an electronic catalog. The sales are completed using mechanisms described in Chapters 2 and 3.

In addition, Dell sells refurbished Dell computers and other products at electronic auctions (dellauction.com). Online auctions are an important sales channel. In 2006, Dell opened physical stores, mainly in reaction to customer demands.

Business-to-Business EC. Most of Dell’s sales are to businesses. Whereas B2C sales are facilitated by standard shopping aids (e.g., catalogs, shopping carts, credit card payments; see Chapter 2), B2B customers obtain additional help from Dell. Dell provides each of its nearly 100,000 business customers with Premier Dell service.

For example, British Airways (BA) considers Dell to be a strategic supplier. Dell provides notebooks and desktops to 25,000 BA users. Dell offers two e-procurement services to BA purchasing agents. The more basic service, Premier Dell, allows BA (and other businesses) to browse, buy, and track orders on a Dell website customized for the user’s requirements. The site enables authorized users to select preconfigured PCs for their business unit or department. A more advanced version, Premier B2B, supports e-procurement systems such as those from Ariba. This provides automatic requisition and order fulfillment once an authorized user has chosen to buy a PC from Dell. BA has placed the e-procurement tools on its E-Working intranet. This allows authorized staff to purchase PCs through a portal that connects directly to Dell’s systems.

In addition to supporting its business customers with e-procurement tools, Dell also is using EC in its own procurement. Dell developed an e-procurement model that it shares with its business partners, such as BA. One aspect of this model is the use of electronic tendering to conduct bids (see Chapter 4). Dell uses electronic tendering when it buys components for its products.

In 2000, Dell created a B2B exchange at dell.b2b.com. This venture was a failure, like most other exchanges (see Chapter 4).

E-Collaboration. Dell has many business partners with whom it needs to communicate and collaborate. For example, Dell uses shippers, such as UPS and FedEx, to deliver its computers to individuals. It also uses third-party logistics companies to collect, maintain, and deliver components from its suppliers, and it has many other partners. Dell is using Web Services, an EC technology, to facilitate communication and reduce inventories. Web Services facilitate B2B integration. Integration efforts began in 2000 with other technologies when Dell encouraged its customers to buy online. The B2B integration offer combines Dell PowerEdge servers based on Intel architecture and webMethods B2B integration software to link customers’ existing ERP (enterprise resource planning) or procurement systems directly with Dell and other trading partners. In addition, Dell can provide e-procurement applications and consulting services. Dell also educates customers in its technologies and offers suggestions on how to use them. This is particularly true for emerging technologies such as wireless.

Finally, Dell has a superb communication system with its over 15,000 service providers around the globe.

E-Customer Service. Dell uses a number of different tools to provide superb customer service around the clock. To leverage customer relationship management (CRM)—a customer service approach that is customer centered for lasting relationships—Dell provides a virtual help desk for self-diagnosis and service as well as direct access to technical support data. In addition, a phone-based help desk is open 24/7. Customers can also arrange for a live chat with a customer care agent. Product support includes troubleshooting, user guides, upgrades, downloads, news and press releases, FAQs, order status information, a “my account” page, a community forum (to exchange ideas, information, and experiences), bulletin boards and other customer-to-customer interaction features, training (continued)
books (at a discount), and much more. Dell also offers educational programs at learn.dell.com.

Dell keeps a large customer database. Using data mining tools, it learns a great deal about its customers and attempts to make them happy. The database is used to improve marketing as well.

**Intrabusiness EC.** To support its build-to-order capabilities, significantly improve its demand-planning and factory execution accuracy, reduce order-to-delivery time, and enhance customer service, Dell partnered with Accenture to create a new, high-performance supply chain planning solution. Now in place in Dell’s plants around the world, the program, which paid for itself five times over during the first 12 months of operation, enables Dell to adapt more quickly to rapidly changing technologies and the business environment, maintaining its position as a high-performance business. Dell also has automated its factory scheduling, demand-planning capabilities, and inventory management using information technology and e-supply chain models.

**Affiliate Program.** Dell provides affiliate partners the opportunity to link from their websites to Dell.com. Dell pays 2 to 4 percent on any qualified sale made from clicking on Dell’s link at the partners’ sites (referring buyers).

**The Results**

Dell has been one of Fortune’s top five “Most Admired” companies since 1999, and it continuously advances in the rankings of the Fortune 500 and the Fortune Global 500. Dell has over 100 country-oriented websites, and profits are nearing $3 billion a year. If you had invested $10,000 in Dell’s initial public offering (IPO) in 1987, you would be a millionaire just from that investment.

In 2006, Dell opened physical stores to match its competitors and customer demands. (Its major competitor is HP. In 2006, HP regained its “top PC maker” position, leaving Dell in second place and staying in the lead through 2008.) Michael Dell returned to the CEO position in 2006, and a restructuring of the company began shortly thereafter. All sales to businesses will be managed centrally, rather than from three regional headquarters around the globe. The company cut its workforce by 8,000 in 2009.

Still, over 95 percent of its business is online and through mail orders. It also launched a blog called Direct2Dell (en.community.dell.com/blogs/direct2dell). Dell also is expanding its business not only in the computer industry but also in consumer electronics. It is clearly an example of EC success.

**Questions**

1. List all the type of EC transactions used by Dell.
2. List the business models used by Dell.
3. List the competitive advantage of Dell over brick-and-mortar competitors.

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**REFERENCES FOR ONLINE FILE W1.1**

ONLINE FILE W1.2

Application Case

CAMPUSFOOD.COM—STUDENT ENTREPRENEURS

Campusfood.com’s recipe for success was a simple one:
Provide interactive menus to college students, using the power of the Internet to replace and/or facilitate the traditional telephone ordering of meals. Launched at the University of Pennsylvania (Penn), the company takes thousands of orders each month for local restaurants—bringing pizzas, hoagies, and wings to the Penn community and to dozens of other universities.

Founder Michael Saunders began developing the site (campusfood.com) in 1997 while he was a junior at Penn. With the help of some classmates, Saunders launched the site in 1998. After graduation, he began building the company’s customer base. This involved expanding to other universities, attracting students, and generating a list of restaurants from which students could order food for delivery. Currently, some of these activities are outsourced to a marketing firm, which enabled the site to add dozens of schools nationwide. In 2004, the company served 200 schools linked to over 1,000 restaurants.

Financed through private investors, friends, and family members, the site was built on an investment of less than $1 million. (For comparison, another company with services also reaching the college-student market invested $100 million.) Campusfood.com’s revenue is generated through transaction fees—the site takes a 5 percent commission on each order from the sellers (the restaurants).

When you visit Campusfood.com, you can:

- Navigate through a list of local restaurants, their hours of operation, addresses, phone numbers, and other information.
- Browse an interactive menu. The company takes a restaurant’s standard print menu and converts it to an electronic menu that lists every topping, every special, and every drink offered, along with the latest prices.
- Bypass “busy” telephone signals to place an order online, and in so doing, avoid miscommunications.
- Get access to special foods, promotions, and restaurant giveaways. The company is working to set up meal deals that are available online exclusively for Campusfood.com customers.
- Arrange for electronic payment of an order.

University students who signed up at Titan Poker with a special bonus code provided by Campusfood.com were eligible to play in a series of exclusive online poker tournaments (in April 2006). Winners received special Campusfood Cash coupons valued at $20,000, redeemable for food orders at participating restaurants.

Questions

1. Classify this application by EC transaction type.
2. Explain the benefits of Campusfood.com for its student customers and for the restaurants it represents.
3. Trace the flow of digitized information in this venture.
4. How does the outsourcing of the marketing activities contribute to the business?
5. What is the benefit of the Titan Poker contest to the company?

REFERENCES FOR ONLINE FILE W1.2

campusfood.com (accessed April 2011).
Online File W1.3 Major Characteristics of Web 2.0

The following are representative characteristics:

- User-created content (self publishing).
- The ability to tap into the collective intelligence of users. The more users contribute the more popular and valuable a Web 2.0 site becomes.
- Unique communication and collaborative environment.
- Making data available in new or never-intended ways.
- Web 2.0 data can be remixed or “mashed up,” often through Web Services interfaces, much the way a dance-club DJ mixes music.
- The presence of lightweight programming techniques and tools lets nearly anyone act as a developer (e.g., wikis, blogs, RSS, and podcasting).
- The virtual elimination of software-upgrade cycles makes everything a perpetual beta or work in progress, and allows rapid prototyping using the Web as a platform.
- Unique sharing of content or all media.
- Networks as platforms, delivering and allowing users to use applications entirely through a browser.
- Open source architecture, which makes connectivity to computing resources simple.
- Users own the data on the site and exercise control over that data.
- An architecture of participation and digital democracy encourages users to add value to the application as they use it.
- New business models are created.
- A major emphasis on social networks.
- A rich interactive, user-friendly interface based on Ajax or similar frameworks. Ajax (Asynchronous JavaScript and XML) is a Web development technique for creating interactive Web applications.
- More productive organization communication due to improved search, links, user authority, etc.
- Global spread of innovation. As soon as a successful idea is deployed as a website in one country, similar sites appear around the globe.
Known in China as “Superfish,” Michael Phelps was on his way to achieving his goal of eight gold medals. His most difficult competition was the 100-meter butterfly. On PCs, cell phones, electronic billboards, and televisions, millions of viewers worldwide watched him win the event by .01 seconds. The results appeared on the screens almost in real time. If you did not see this exciting race, you can access it on YouTube. This was only one component in the “most wired,” or digital, Olympics.

The Problem
It was not an easy task to manage 42 events in seven different cities in China. Competition results had to be displayed worldwide not only on PCs and televisions, but also on jumbo public display screens in stadiums and streets in hundreds of cities, and on millions of tiny mobile device screens.

But, this was only one problem. The Olympic organizers also had to manage the logistics of the participants and address the requirements of the media, while also accommodating over 100 million tourists. The following are some of the specific requirements that the Beijing Olympic organizers had to meet:

- Record the performance of all athletes and determine the winners instantly, sometimes based on millisecond differences. These results then had to be disseminated around the globe in real time.
- China hosted about 300,000 athletes, referees, trainers, journalists, and other workers from more than 200 countries, speaking dozens of languages. All needed to have accommodations, transportation, and food.
- Nearly 8 million visitors from abroad and close to 120 million domestic travelers attended the Olympics. They needed accommodations, transportation, and so forth.
- Tickets to all events had to be issued, many in advance, and to people in other countries. Protection against counterfeiting was necessary.
- Approximately 1,000 percent more Web-delivered videos were needed in 2008 than were needed by the 2004 Olympics.
- The organizers anticipated a greater than 1,000 percent increase in page views, and even more in video watching. Sufficient infrastructure had to be in place.
- In real time, the system had to collect and filter more than 12 million monitored events and identify potential security threats.
- Real-time, transoceanic coverage, including digital videos, required sophisticated hardware, software, and networks.
- Many visitors preferred to shop online and have Olympic souvenirs shipped to their homes.
- Overall, it was necessary to securely process more than 80 percent more information compared with the 2004 Olympics in Athens, Greece.

These problems and requirements can be classified into seven categories:

1. Information collection and monitoring
2. Information dissemination to the world
3. Tickets and souvenirs management
4. Food and supplies along the supply chain
5. Security and privacy monitoring and protection
6. Transportation and pollution control
7. Social networking for the public

The $4 Billion IT and EC Solutions
To address the administrative problems just discussed, as well as many others, the organizers employed the latest information technology tools, including electronic commerce. To explain how this was done, the seven requirements are shown in the following exhibit (left side), which also shows the e-commerce solutions used (right side).

The following major e-commerce solutions were implemented:

- The instant display of the results was possible due to the use of sophisticated photo-finish cameras and computers. The system was capable of identifying winners accurately even when the difference was only milliseconds.
- The International Olympic Committee (IOC) launched a YouTube channel to broadcast clips that were accessible in 77 developing countries (but not in the United States). Viewers were able to watch free clips on demand from PCs, as well as news and commentaries. These clips were broadcast on television and display boards as well. Videos were downloaded with Microsoft’s Silverlight and Adobe’s Flash.
- Over 12 million tickets were available for the events. Many of these tickets were purchased online, using Beijing Gehua Ticketmaster, in what we call B2C electronic commerce.
- All the tickets were equipped with radio frequency identification (RFID) tags that were loaded with information designed to prevent counterfeit tickets. (See Online Tutorial T3 for an introduction to RFID.)
- Millions watched the Olympics through online videos and Internet-enabled cell phones and other mobile devices.
- Using RFID tags, the Olympic coordinators ensured the safety of athletes’ food by tracking the ingredients from farms to plates.
- Global Positioning Systems (GPS) were used to track the position of sailing and rowing boats five times per second for comparison purposes.

(continued)
RFID tags were attached to one shoe of each marathon runner. When the runners passed RFID readers at certain locations along the running route, their whereabouts were known as well as their exact time of arrival there.

More than 50 software applications supported the games’ management. For example, a workforce management tool was used to manage the work of hundreds of telecommunication technicians and others during the games.

Bloggers were encouraged to blog. For example, the Bank of America sponsored a site called “America’s Cheer” where athletes were blogging. Others blogged on rotorblog.com, as well as thousands of other sites. Twitter (see Chapter 2) was also a great source of coverage and result dissemination. Social networking capabilities were provided by the “Olympic Network TV Station.”

Electronic collaboration among over a dozen IT companies and especially Cisco Systems, Microsoft, and Limelight Networks ensured the successful execution of the supporting IT and EC systems.

**The Results**
The organizing committee clearly deserved a gold medal. Everything was perfect, even the computer-generated fireworks that were displayed in the video of the opening and closing ceremonies! The EC solutions were able to handle...
over 20 times more video screens than the 2004 Olympics, satisfying approximately 60 million unique users (versus 11 million in 2004) who viewed more than 1 trillion pages (versus 230 million in Athens). All of this was accomplished without any major problems. The Olympics helped create many new online communities that provided instant feedback to NBC and Microsoft, which improved the coverage. Finally, a social network that covers all the Olympic games was developed at olympic-network.net. No other Olympics had such sophisticated information processing capabilities and superb EC applications. Even the illegal e-commerce market that was selling pirated Olympic merchandise was minimized.

### Questions
1. For each business requirement explain how the EC tools helped.
2. Identify the B2C and B2B activities described in this case.
3. Identify the major business models described in this case.
4. Relate the case to the concept of the digital enterprise.
5. Relate the case to social networks and communities.

### References


Rotorblog.com (miscellaneous dates).

Part 1: Introduction to E-Commerce and E-Marketplaces

**Online File W1.5 Response Activities for Organizations**

**Strategic Systems.** Strategic systems provide organizations with strategic advantages, enabling them to increase their market share, better negotiate with their suppliers, or prevent competitors from entering into their territory. There are a variety of EC-supported strategic systems. One example is FedEx’s tracking system, which allows FedEx to identify the status of every individual package, anywhere in the system. Most of FedEx’s competitors have already copied the FedEx system. In response, FedEx has been forced to continuously introduce EC innovations, but so are its competitors, especially UPS.

**Agile Systems.** Agile organizations have the ability to consistently improve productivity—especially during periods of change. To create business agility, organizations use IT in general and EC in particular. The solution provided by EC enables capitalizing on changing industry, government, and business requirements; assimilating required resources and business processes quickly to meet demand; promptly adapting technology to fit new or modified business processes; leveraging existing resources to do the above; and doing it all economically.

**Continuous Improvement Efforts and Business Process Restructuring and Management.** Many companies continuously conduct programs to improve their productivity, quality, and customer service. Two examples of how EC can help companies are Dell and Intel. Dell takes its orders electronically and immediately moves them via enterprise resource planning (ERP) software (see Online Tutorial T5) into the just-in-time assembly operation. Using an almost real-time extranet-based monitoring system, Intel tracks the consumption of its products by a dozen of its largest customers in order to plan production schedules and deliveries.

However, continuous improvement programs may not be a sufficient solution for some business problems. Strong business pressures may require a radical structural change. Such an effort is referred to as business process restructuring or reengineering. E-commerce is frequently interrelated with process restructurings that may be needed for implementation of EC initiatives such as e-procurement.

**Customer and Partner Relationship Management.** One of the major symptoms of the digital revolution is that the bargaining power of customers is stronger than ever, and that power is growing. The availability of information and the ability to make quick comparisons online (e.g., google.com/products) increases this trend. Customers are called “kings” and “queens,” and organizations must make their customers happy in order to keep them. This may be accomplished through customer relationship management (CRM, see Online Tutorial T1).

EC is not just about buying and selling. Supporting CRM, as we will see throughout the book, is a major function of EC. Such support is done by multiple technologies, ranging from computerized call centers to intelligent agents. Some of the e-CRM topics highlighted in this book are sales force automation, call center tools and operations, personalization, empowerment of customers and frontline employees, support of mobile employees, and partner relationship management.

**Business Alliances.** Many companies realize that alliances with other companies, even competitors, can be beneficial. For example, General Motors, Ford, and others in the automotive industry created a B2B e-marketplace. Other types of business alliances include resource-sharing partnerships, permanent supplier–company relationships, and joint design and research efforts.

**Electronic Markets.** Electronic markets, private or public, can optimize trading efficiency, enabling their members to compete globally. Most electronic markets require the collaboration of different companies, sometimes even competitors, as you will see in Chapters 4 and 5.

**Reductions in Cycle Time and Time to Market.** Cycle time reduction—shortening the time it takes for a business to complete a productive activity from its beginning to end—is extremely important for increasing productivity and competitiveness. Similarly, reducing the time from the inception of an idea to its implementation (time to market) is important, because those who are first on the market with a product or who can provide customers with a service faster than their competitors, enjoy a distinct competitive advantage. Extranet-based applications can expedite the various steps in the process of product or service development, testing, and implementation.

**Empowerment of Employees.** Giving employees the authority to act and make decisions on their own is a strategy used by many organizations as part of productivity improvement programs. Management delegates authority to individuals or teams who can then execute the work faster and with fewer delays. Empowerment of employees may also be part of e-CRM. Empowered salespeople and customer service employees are given the authority to make customers happy and do it quickly, helping to increase customer loyalty. EC allows the decentralization of decision making and authority via empowerment and distributed systems, but simultaneously supports a centralized control. Empowerment can also be achieved by using automated decision systems.

**Supply Chain Improvements.** EC, as is shown throughout the book, and especially in Chapter 11 and Online Tutorial T5, can help reduce supply chain delays, reduce inventories, and eliminate other inefficiencies.
use of e-supply chain models to automate factory scheduling, which reduces response time and inventory management, can be seen in companies such as Dell and Toyota.

**Mass Customization: Made to Order in Large Quantities.** Today’s customers demand customized products and services; the business problem is how to provide customization and do it efficiently. This can be done, in part, by changing manufacturing processes from mass production to mass customization (Anderson 2002). In mass production, a company produces a large quantity of identical items. In *mass customization*, items are produced in a large quantity but are customised to fit the desires of each customer. EC is an ideal facilitator of mass customization, for example, by enabling interactive communication between buyers and designers so customers can quickly and correctly configure the products they want. Also, orders placed online can reach production facilities in minutes. Note that mass customization is not easy to achieve; however, EC can help. Mass customization requires a build-to-order process (see Online Tutorial T6).

**Intrabusiness: From Sales Force Automation to Inventory Control.** One area where EC has made major progress in supporting organizational responses is applications inside the business. The support can be provided to field representatives, warehouse employees, designers, researchers, and office workers. The improvements in productivity for these kinds of employees were fairly slow until the introduction of EC.

**Knowledge Management.** Knowledge management (KM) refers to the process of creating or capturing knowledge, storing and protecting it, updating and maintaining it, and using it whenever necessary. Knowledge management programs and software are frequently associated with EC. For example, knowledge is delivered via corporate portals to assist users or to teach employees. Also, EC implementation requires knowledge, and EC activities such as market research create knowledge. For more on the EC–KM connection, see Online Tutorial T9.

**Questions**

1. List the major business pressures faced by organizations today.
2. List the major organizational responses to business pressures.
3. Describe how EC supports organizational responses to business pressures.
4. Describe an agile organization.

**REFERENCE FOR ONLINE FILE W1.5**

Part 1: Introduction to E-Commerce and E-Marketplaces

Online File W1.6 Representative EC Business Models

1. **Name your own price.** Pioneered by Priceline.com, the name-your-own-price model allows buyers to set the price they are willing to pay for a specific product or service. Priceline.com will try to match a customer’s request with a supplier willing to sell the product or service at that price. This model is also known as a demand-collection model.

2. **Find the best price.** According to this model, also known as a search engine model, a customer specifies a need and then an intermediate company, such as Hotwire.com, matches the customer’s need against a database, locates the lowest price, and submits it to the consumer. The potential buyer then has 30 to 60 minutes to accept or reject the offer. A variation of this model is available for purchasing insurance: A consumer can submit a request for insurance to Insweb.com and receive several quotes. Many companies employ similar models to show price comparisons and find the lowest price. For example, consumers can go to eloan.com to find the best interest rate for auto or home loans. A well-known company in this area is Shopping.com.

3. **Affiliate marketing.** Affiliate marketing is an arrangement whereby a marketing partner (a business, an organization, or even an individual) refers consumers to a selling company’s website. The referral is done by placing a banner ad or the logo of the selling company on the affiliated company’s website. Whenever a customer who was referred to the selling company’s website makes a purchase there, the affiliated partner receives a commission (which may range from 3 to 15 percent) of the purchase price. In other words, by using affiliate marketing, a selling company creates a virtual commissioned sales force. Pioneered by CDNow, the concept is now employed by thousands of retailers and manufacturers. For example, Amazon.com has over 1 million affiliates, and even tiny Cattoys.com offers individuals and organizations the opportunity to put its logo and link on their websites to generate commissions.

4. **Group purchasing.** In the offline world of commerce, discounts are usually available for purchasing large quantities. So, too, EC has spawned the concept of demand aggregation, wherein a third party finds individuals or small-to-medium enterprises (SMEs), aggregates their small orders to attain a large quantity, and then negotiates (or solicits a tender offer) for the best deal. Thus, using the concept of group purchasing, a small business, or even an individual, can get a discount. This model is also known as the volume-buying model. One leading aggregator is Letsbuysit.com. Online purchasing groups are also called e-co-ops. Group purchasing is now associated with social commerce with companies such as Groupon (see Chapter 7).

5. **Online auctions.** Almost everyone has heard of eBay, the world’s largest online auction site. Several hundred other companies, including Amazon.com and Yahoo!, also conduct online auctions. In the most popular type of auction, online shoppers make consecutive bids for various goods and services, and the highest bidders get the items auctioned. E-auctions come in different shapes and use different models. For example, eBay is using over 40,000 “assistants” in a model where the assistants perform the order fulfillment function. For new auction models see Chapter 2.

6. **Product and service customization.** With customization, a product or service is created according to the buyer’s specifications. Customization is not a new model, but what is new is the ability to quickly configure customized products online for consumers at costs not much higher than their noncustomized counterparts. Dell is a good example of a company that customizes PCs for its customers.

7. **Information brokers (infomediaries).** Information brokers provide privacy, trust, matching, search, content, and other services (e.g., Bizrate.com, google.com/products).

8. **Bartering.** Companies use bartering (see Chapter 2) to exchange surpluses they do not need for things that they do need. A market maker (e.g., web-barter.com or tradeaway.com) arranges such exchanges.

9. **Deep discounting.** Companies such as Half.com and Groupon.com offer products and services at deep discounts, as much as 50 percent off the retail price (see Chapter 3 and 7).

10. **Membership.** A popular offline model, in which only members get a discount, also is being offered online (e.g., netmarket.com and nytimes.com).

11. **Value-chain integrators.** This model offers services that aggregate information-rich products into a more complete package for customers, thus adding value. For example, Carpoint.com provides several car buying–related services, such as financing and insurance.

12. **Value-chain service providers.** These providers specialize in a supply chain function such as logistics (ups.com) or payments (PayPal at paypal.com).

13. **Supply chain improvers.** One of the major contributions of EC is in the creation of new models that change or improve supply chain management, as shown in the opening case about Dell. Most interesting is the conversion of a linear supply chain, which can be slow, expensive, and error prone, into a hub.

14. **Negotiation.** The Internet offers negotiation capabilities between individuals (e.g., ioffer.com) or between companies. Negotiation can also be facilitated by intelligent agents.

Note: Additional models particular to social commerce are presented in Chapter 7.
The following are representative sources of information on EC:

**Vendors, News, EC Statistics, and More**
- wikipedia.org/wiki/e-commerce
- cio.com/topic/5693/E_Business
- cioinsights.com
- searchcio.techtarget.com
- electronicmarkets.org
- ecommercetimes.com
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- e-commerceguide.com
- ecommercenews.com
- clickztoday.com
- mmv.vic.gov.au

**Conferences**
Many conferences are dedicated to e-commerce. Well-known conferences are:
- The Annual Bled Conference (bledconference.org)
- The Annual Conference of ICEC (see icec.net)
- The Congress on the Management of E-Business (eworldcongress.smu.ca)

**Journals**
- International Journal of Electronic Commerce (gvsu.edu/ssb/ijec)
- Journal of Organizational Computing and Electronic Commerce (informaworld.com/smpp/title~content=t775653688~db=all)
- Electronic Markets Journal (electronicmarkets.org)
- Journal of Electronic Commerce Research (csulb.edu/journals/jecr)
- Journal of Electronic Commerce in Organization (ISSN: 1539-2937)
- Electronic Commerce Research and Applications (ISSN: 1556-4223)
- International Journal of Web Services Research (ISSN: 15398-3062)
- International Journal of E-Business Research (ISSN: 1548-1131)
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- Journal of Interactive Marketing (ISSN: 1520-6653)
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- informationweek.com/events: Webcasts and free library on IT and EC.
- Techtarget.com: A useful place for case studies, webcasts, news, and white papers.
- Searchcio.com: Helps you find many topics.
- Siliconvalley.com: A place for news, community opinions, EC companies, links, and more.
- libguides.rutgers.edu/ecommerce: A source for technologies and tools for e-commerce. Links to e-magazines on EC.
Online File W1.7 (continued)

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- ITBusinessEdge.com: White papers, blogs, news, links to resource centers, and jobs.
- Brint.com: Deep coverage of articles on EC.
- scribd.com: Comprehensive resources including business models.
- whitepapers.techrepublic.com: Comprehensive collection of whitepapers, webcasts, and more.
- bitpipe.com: Comprehensive EC and IT resources.
- eseminarslive.com/c/s/Topics: Large collection of webcasts, videos, events, and more.