Case

Omega Group

Omega Group is a human resources consulting firm that offers a full range of services to medium-sized and larger companies. Omega’s services include recruiting, compensation and benefits, training, and compliance.

Omega’s recruiting division specializes in helping companies find good candidates for managerial and executive positions, administrative support positions, and technical professional positions. The compensation and benefits division helps Omega’s clients keep their pay scales and benefits packages in line with their competitors. This group also offers administration services for medical, dental, retirement, and other employee benefit plans.

The training division creates training plans and monitoring systems that let its clients know which employees have completed which training. Omega develops many of its training programs itself, but it also contracts some of the development work to freelance developers. Omega also acts as a reseller of training programs developed by other companies, especially in the more specialized technical fields. Some of Omega’s training products are sold on CD as computer-aided training programs.

The compliance division helps clients stay aware of human resources-related laws and regulations. These include worker’s compensation, health and safety, wage and hour, equal employment opportunity, and other laws and regulations. Sometimes Omega’s divisions develop services cooperatively, such as a recent equal employment opportunity compliance video produced jointly by the training and compliance divisions.

Omega has a Web site that has information about the firm and its services, but the firm does not sell any products or services on the site. Omega’s managing director, Steven Boyce, is interested in extending the firm’s Web operations to include selling some of Omega’s services and has hired you as his special assistant for online projects. Steven is interested in selling Omega’s current services online, using the Internet to reduce operating costs where possible, and perhaps developing new services or products that would make sense to sell online. Steven has asked you to explore these possibilities and analyze their potential for Omega.
What Is Electronic Commerce?

Steven has heard many people in his industry talk about how electronic commerce (or e-commerce) is becoming the growth opportunity of the future. Although Omega is currently a service business and does not sell products to customers, the company is thinking about doing so. Steven would like you to find out more about electronic commerce and how Omega might use its Web site to increase sales to current clients and to identify new opportunities—new services and products, new clients, or both.

You begin your research by talking with a number of businesspeople that you know. You find that everyone you ask seems to have a different idea of what electronic commerce is. Some people use the term “electronic business” (or “e-business”) to mean buying and selling products or services on the Web. Others use the term “electronic commerce” when they are talking about buying and selling on the Web and use “electronic business” when they are talking about the more comprehensive idea of using Internet technologies to perform any business process. **Business processes** include all the items that companies do to achieve their objectives, such as selling goods and services, collecting payments, ordering materials and supplies, hiring personnel, shipping finished goods to customers, identifying new customers, managing the movement of parts and products through manufacturing, quality control and testing, ensuring compliance with laws and regulations, paying bills, and planning for future growth. Some people and businesses use the term electronic business (or e-business) when they are discussing electronic commerce in this broader sense.

Most people today use the terms **electronic business** and **electronic commerce** (and their shorter forms, **e-business** and **e-commerce**) interchangeably to include the broadest definition: any business process, or any collection of business processes, conducted using Internet technologies. Many not-for-profit organizations conduct “business” activities; for example, a museum might sell tickets for an upcoming special exhibition on its Web site. In this book, the term electronic commerce (or e-commerce) is used in its broadest sense; that is, the conduct of selling, buying, logistics, or other organization management activities via the Web.

To organize their thinking about electronic commerce processes, industry analysts and business researchers use two different classification schemes, as illustrated in Figure 10-1. One classification scheme organizes electronic commerce activities by the types of participants (businesses, consumers, or governments) that engage in the activities. The other classification scheme organizes electronic commerce activities by the types of accomplishments the activities are supposed to generate (make sales, provide services, buy materials, hire people, and so on). You will learn about these classification schemes in the next two sections.
A participant-based electronic commerce classification scheme is based on the types of participants in the process. These participants might be businesses, consumers, or government entities. A process undertaken by a company to sell goods or services to individuals is called business-to-consumer (B2C) electronic commerce. A process undertaken by a company to sell goods or services to other business firms or not-for-profit organizations is called business-to-business (B2B) electronic commerce. The ordering and purchasing processes conducted by the buyer are also included in the B2B category.

Businesses also have many dealings with government agencies. For example, all companies must file tax forms and pay taxes. Many companies are required to file various reports and copies of their financial statements with government agencies. Using Internet technologies in these business processes is often called business-to-government (B2G) electronic commerce.

Some analysts define a fourth type of electronic commerce, consumer-to-consumer (C2C), to describe the processes that occur when individuals who are not operating formal businesses use the Internet to conduct transactions. One example of C2C electronic commerce occurs in an online auction in which one individual auctions an item to another individual. Most analysts, however, argue that sellers in an online auction are engaging in B2C electronic commerce, even though they might not be operating a formal business.
Activity-Based Classification

An activity-based electronic commerce classification scheme is organized by what the business activities are designed to accomplish. The way a company does business, that is, the sum of its business activities and processes, is called the company’s **business model**. There are many different kinds of businesses in the world doing many different things; however, all businesses must generate revenues and pay the costs associated with generating those revenues.

In the early days of electronic commerce (during the mid-1990s), many new companies were formed in the hope of developing business models that would work online. These new ventures and their hopeful investors truly believed that if they could identify a good online business model and follow it, they would be very successful. After the speculative bubble fueled largely by this view burst in 2000, companies began taking a closer look at electronic commerce initiatives before undertaking them. They began to realize that the idea of creating new online business ventures was not the key to success. Instead, companies looked for ways to use the Internet and the Web to improve the business processes in which they were already engaged.

The business processes that a company uses to find new customers, make sales, and deliver the goods or services that it sells are collectively referred to as the company’s **revenue model**. The other business processes in a company, such as purchasing, hiring, receiving, and manufacturing, are sometimes called the company’s **operations model**. As companies began to look at their existing business processes, they found that some electronic commerce activities could improve a company’s revenue processes, and others could reduce the cost or increase the efficiency of its operations processes.

Competitive Advantage and Transaction Cost Reduction

To stay in business, a company must have a **competitive advantage**; that is, a way of generating more revenues, incurring lower costs, or performing tasks more efficiently than other companies in the same business. Successful companies usually have many competitive advantages over other companies in the same industry. Because the environment in which a business operates changes over time, the way that companies achieve competitive advantages must change, too. By understanding their companies’ revenue and operations models, managers can stay alert for ways to make improvements in them and sustain their competitive advantages.

New technologies, such as the Internet, give managers new opportunities for competitive advantages. New technologies can provide ways for doing new things and for doing old things more efficiently. The main contribution of electronic commerce to increased efficiency is that it can reduce transaction costs. **Transaction costs** are the total of all costs that a buyer and a seller incur as they gather information and negotiate a purchase-sale transaction. Transaction costs include brokerage fees, sales commissions, and the costs of information search and acquisition. Businesses and individuals can use the Web to reduce the transaction costs that occur in a wide variety of business processes.

Steve is interested in learning more about electronic commerce and how Omega might use it. You decide that a good first step would be to learn more about the revenue and operations models that other companies are using on the Web.
Revenue Models for Electronic Commerce

Businesses today take many different approaches to generating revenue on the Web. These approaches include: the use of online catalogs to sell goods and services, a combination approach that relies on selling advertising and subscriptions for access to information, and charging direct fees for services or access to specific information. Companies use these approaches for both B2C and the selling part of B2B electronic business. Some companies create one Web site to handle both B2C and B2B sales. Even when companies create separate sites for B2B and B2C transactions, they often use the same revenue model for both types of sales.

Online Catalog Revenue Model

Companies have been selling goods through mail order catalogs for more than 100 years. The first mail order businesses were started in the late 1800s. When the telephone became commonplace, some companies, notably Sears and Montgomery Ward, began accepting telephone orders and eventually grew to become huge retailers. At their peaks in the mid-1900s, these companies had hundreds of retail stores in addition to their catalog businesses. In recent years, both companies have faced declining sales and stiff competition from discount retailers such as Wal-Mart and Target. Montgomery Ward finally succumbed to these pressures and went out of business in 2001.

In much the same way as retailers adopted the technology of the telephone many years ago, they are now adopting the technologies of the Web. In 2002, Sears purchased Lands’ End, a company that sold its products exclusively through catalog and online sales. Lands’ End was generating more than one-third of its annual sales online. Sears is hopeful that it can use the Lands’ End acquisition to help it reestablish its former dominance in retailing.

The online catalog revenue model is based on this time-tested mail order catalog model. In the mail order catalog model, the seller creates a brand image that conveys quality and low cost, then uses the strength of that image to sell through its printed catalogs mailed to prospective buyers. Buyers place orders by mail or by calling the seller’s toll-free telephone number. Many retailers have been successful with this business model, including sellers of consumer goods items such as clothes, computers, electronics, housewares, and gifts.

In the online catalog model, a company replaces or supplements its distribution of printed catalogs with a catalog on its Web site. Customers can place orders through the Web site, by telephone, or even by mail. Giving customers this flexibility is important because many consumers are still reluctant to use the Web to purchase goods. In the first few years of consumer electronic business, most shoppers used the Web to obtain information about products and to compare prices and features, but then made the purchase in person or by telephone. These shoppers found early Web sites hard to use and were often afraid to send their credit card numbers over the Internet. Web sites have become easier to use, but many consumers still worry about companies’ abilities to maintain the confidentiality of their credit card numbers and other personal information.

Three types of companies use the online catalog model: companies that sell only on the Web, companies that sell through print catalogs and on the Web, and companies that have physical stores and also sell on the Web. The Web-only businesses are sometimes called dot-com or pure dot-com companies. One of the most famous examples of the Web-only dot-com companies is Amazon.com. The Amazon.com site appears in Figure 10-2.
One strategy used frequently by pure dot-com companies is the development of strategic alliances with existing companies. A strategic alliance (or strategic partnership) is an arrangement in which one company performs some business processes for another company in exchange for money or the sharing of expertise or access to customers. Amazon.com has a number of strategic alliances with companies such as Target and Office Depot. If you scroll down the Amazon.com home page, you will see the links to some of Amazon’s strategic partners as shown in Figure 10-3.
Most companies on the Web today are not pure dot-com companies, but are established companies that use the Web to extend their existing businesses. Some of these companies operate print catalog operations, some have physical retail stores, and some have both print catalog and physical store operations. Companies that have existing sales outlets often worry that their Web sites will take away sales from those outlets. This threat of losing sales from existing stores to the new online catalog is called \textit{channel conflict}. Channel conflict can occur whenever sales activities on a company’s Web site might interfere with sales made through existing channels such as physical stores or telephone and mail-order operations. The problem is also called \textit{cannibalization}, because the Web site’s sales replace sales that would otherwise have occurred in the company’s retail stores.

To learn more about the online catalog revenue model, you decide to visit several online catalog sites operated by different types of companies.

\begin{itemize}
  \item To learn more about Web catalog retailers:
    \begin{itemize}
      \item 1. Open the Student Online Companion page at \url{www.course.com/newperspectives/internet5}, click the \textit{Tutorial 10} link, and then click the \textit{Session 10.1} link.
      \item 2. Choose one of the links below the Web-Only Retailers heading, and then click the link to open the site. Examine the home page and explore the Web site. Identify the types of consumers who would be likely to buy from the site, the types of products sold on the site, and any strategic partners. Repeat this process for one other link below this heading.
      \item 3. Return to the Student Online Companion page for \textit{Session 10.1}, choose one of the links below the Print Catalog Retailers heading, and then click the link to open the site. Examine the home page and explore the Web site. Identify the types of consumers who would be likely to buy from the site, the types of products sold on the site, and any strategic partners. Identify any potential channel conflicts faced by the company. Repeat this process for one other link below this heading.
      \item 4. Return to the Student Online Companion page for \textit{Session 10.1}, choose one of the links below the Retailers with Physical Stores heading, and then click the link to open the site. Examine the home page and explore the Web site. Identify the types of consumers who would be likely to buy from the site, the types of products sold on the site, and any strategic partners. Identify any potential channel conflicts faced by the company. Repeat this process for one other link below this heading.
    \end{itemize}
\end{itemize}

After reviewing six Web catalog sites, you discuss your findings with Steve. He is interested in your observations, but he notes that all of the sites you visited were retailers engaged in B2C electronic commerce. Most of Omega’s sales would be to other businesses. Steve asks you to visit two more Web sites that use the Web catalog model, but that are engaged in B2B electronic commerce.
5. Return to the Student Online Companion page for Session 10.1, choose one of the links below the B2B Web Catalog Sites heading, and then click the link to open the site. Examine the home page and explore the Web site. Identify the types of businesses that would be likely to buy from the site, the types of products sold on the site, and any strategic partners. Identify any potential channel conflicts faced by the company. Repeat this process for one other link below this heading.

Based on your research, you make some notes for your next meeting with Steve. You realize that the Web sites you visited provide useful information for many different types of business that might be thinking of ways to use the Web to make sales to both businesses and consumers.

Advertising and Subscription Revenue Models

Some businesses have relied on advertising as their sole source of revenue for many years. Television networks in the United States use a pure advertising revenue model. The networks provide an audience free programming along with advertising messages. Advertising revenue pays for operations, buys programs, and generates a profit for the networks. In large cities, some newspapers are distributed free of charge. These newspapers earn enough revenue from selling advertising that they can cover the costs of creating, printing, and distributing and still earn a profit.

Other businesses derive their revenue only from subscription fees. For example, some magazines carry no advertising as a matter of policy. This is an example of a pure subscription revenue model.

Much more common are magazines that charge a subscription and also carry advertising. These mixed advertising-subscription revenue models are used by many Web sites. In this section, you will learn about a range of advertising only, subscription only, and advertising-subscription mixed revenue models.

In the early years of the Web, many people thought that the potential for Internet advertising was great enough that many Web sites would be able to generate a profit with advertising revenue alone. However, the success of Web advertising has been hampered by two major problems.

First, no consensus has emerged on how to measure and charge for advertising on the Web. Broadcast media advertising rates are based on the size of the audience estimated by rating services such as Nielsen (for television) and Arbitron (for radio). Newspapers and magazines base their ad rates on print circulation and newsstand sales numbers. Web sites can measure their audiences in many different ways, such as number of visitors, number of unique visitors, number of visitors who click an ad to go to the advertiser's site, or other attributes of visitor behavior. Because this great variety of measurements exists, Web advertisers and Web sites have been unable to agree on one standard way to charge for online advertising.

The second problem is that very few Web sites have enough visitors to interest large advertisers. The most successful advertising on the Web is directed at very specific groups. The collection of characteristics that marketers use to group visitors is called demographic information and includes such traits as address, age, gender, income, education, hobbies, political affiliation, and religion. Delivering ads to site visitors with specific demographic characteristics is part of a strategy called target marketing. It can be difficult to determine whether a given Web site is attracting a specific market segment unless that site collects demographic information from its visitors. Unfortunately for sellers of Web advertising, visitors are becoming increasingly reluctant to provide this type of information because of privacy concerns.
Web portal sites are among the few types of sites that can draw enough visitors (and thus, advertising dollars) to be profitable. A Web portal (or simply a portal) is a doorway to the Web. Portals are starting points for Web surfers—they usually include general interest information and can help users of the portal find just about anything on the Web. Examples of portals include the AOL, Excite, InfoSpace, MSN, Netscape, and Yahoo! Web sites. Web portals typically share many common characteristics, including free e-mail, links to search engines, Web directories, membership services, news headlines and articles, discussion groups, chat rooms, links to virtual shopping malls, calendars, and address books. Some portals allow site visitors to customize their entry page contents.

Portals earn most of their revenue by selling advertising. A site with a large audience can charge higher advertising rates than one with a smaller audience. Thus, the audience size (the number of visitors to the Web site) is important. The quality of a portal is a significant factor in attracting visitors and keeping them coming back to a site.

In recent years, however, Web portal sites have had to rely on paid services to bring in sufficient revenue to survive. For example, Yahoo! has been faced with declining advertising rates and a smaller number of advertisers. It has changed its revenue model to a combination of advertising and subscription revenue. Most of its portal services are still available to members at no charge, but Yahoo! is increasingly offering enhanced levels of those services for a monthly or annual subscription fee. For example, a Yahoo! e-mail account is still free, but a member can obtain increased storage space in that e-mail account for an annual fee. Yahoo! Games are still free, but a member can pay a monthly fee to become an “All-Star” member and obtain access to better games, reserved game areas, and game screens that are free of advertising.

One way that a portal site can increase its advertising revenue is to sell target marketing opportunities to advertisers. A portal site can use its search engine to accomplish this. For example, a user who conducts a search on a portal site using the expression “DVD” can expect to see advertising targeted to people interested in buying DVDs or DVD players. Figure 10-4 shows a Lycos results page for a search on “DVD” that includes a number of ads and links that advertisers paid Lycos to show when a user conducts such a search.
As you can see, a variety of advertisers purchased space for a banner ad at the top of this page, sponsored links at the top of the search results listings, and small text ads on the right side of the page. These advertisers purchased the right to place their ads and links on all Lycos results pages for searches that included the term “DVD.” Portal sites each have their own policies on how they charge advertisers for search results page ads; however, the most common policy is to charge more for ads and links that appear closer to the top of the search results page.
Newspaper and magazine publishers have also tried to use the advertising-supported model for their sites, but few have been successful in attracting sufficient advertiser interest to operate their sites profitably. Some publishers are running their sites at a loss in the hopes that they can attract readers who will subscribe to their print editions. Other publishers are using a combination of advertising and subscription revenue. These sites offer some stories free of charge, but most of the content is available only to subscribers.

The Wall Street Journal Web site has been charging a subscription since its inception and is a profitable operation. It does provide some content (including, of course, its classified ads) free of charge. Other newspapers, including the Washington Post, the New York Times, and the Los Angeles Times, use another variation of the combined revenue model. These newspapers do not charge a subscription fee; instead, they offer current stories (usually within the most recent 30 days) free of charge on their Web sites but require visitors to pay for articles retrieved from their archives. Business Week offers yet another combination of revenue models through its Business Week Online site, which is shown in Figure 10-5.

The Business Week Online site sells some advertising and offers some free content, but charges a subscription fee for access to the entire site. Stories available to subscribers only are denoted by a small “BW” in a box symbol. Subscribers who want to read archived articles that are more than five years old pay an additional fee for each article. Business Week also publishes content in the subscriber section of its Web site before the printed magazine is delivered to subscribers or sold on newsstands.
Omega’s benefits, training, and compliance divisions all publish newsletters and reports of various types. Omega sends some of these publications to clients and potential clients at no charge. Other publications are sold for a flat fee or by subscription. Thus, Steven is interested in having you learn more about how different combinations of subscription and advertising revenue models are used on the Web. Steven asks you to explore the Web sites of some popular newspapers and magazines.

**To examine the revenue models of newspaper and magazine sites:**

1. Return to the Student Online Companion page for **Session 10.1**, if necessary.
2. Click one of the links below the Newspaper and Magazine Sites heading and explore the Web site for that publication. Identify the revenue models the site is using. Remember, the site might be using several different revenue models for different types of content contained within the site. Identify the types (age, gender, income level, location) of visitors who would find the site appealing.
3. Repeat Step 2 for two other sites in the list of links.

Web sites that offer classified advertising have been more successful than magazine and newspaper publishers in their implementations of the pure advertising-supported model. Some of these sites specialize in employment advertising and give employers rapid access to human resources throughout the world. The home page for one of these sites, Monster.com, is shown in Figure 10-6.

**Figure 10-6** Monster.com home page
Other sites offer classified ads for autos, boats, motorcycles, houses, apartment rentals, and even airplanes. In addition to charging for the placement of the classified ads, these sites can use the same approach that Web portal and search engine sites use to create target marketing opportunities for advertisers. When a visitor declares an interest in, for example, nursing jobs in Des Moines, the results page can include a targeted banner ad tailored to that individual. The site can charge the employer more for such an ad because it is directed to a narrow market segment.

To examine the revenue models of classified advertising sites:

1. Return to the Student Online Companion page for Session 10.1, if necessary.
2. Click one of the links below the Classified Advertising Sites heading and explore the Web site for that publication. Identify the revenue model the site is using (advertising, subscription, or advertising-subscription mixed). Determine whether the site relies primarily on the sale of classified advertising or some other revenue source.
3. Repeat Step 2 for one other site in the list of links.
4. Close your browser.

In all of the models you learned about in this section, a subscriber or an advertiser (or a combination of the two) pays to allow site visitors to access information on a company’s Web site. You report your findings to Steven, who is very interested in the potential for using these revenue models to sell some of Omega’s print publications. However, he explains to you that most of Omega’s revenue is generated by the services provided to clients by its recruiting and benefits divisions. Steven asks you to investigate Web sites that provide services for which they charge a fee.

Direct Fee Revenue Model

In the direct fee revenue model, businesses offer services for which they charge a fee. The fee can be based on the specific service provided or it can be based on the number or size of the transactions processed. Some of these direct fee revenue-generating processes work well on the Web. If companies can provide the service over the Internet or give Web site visitors the information they need about the transaction on the Web site, companies can offer a high level of personal service. The cost of providing this type of personal service can, in some cases, be much lower on the Web than in physical store locations.

A wide range of services, from online games to tax-planning advice, is available on the Web today. New services appear regularly as companies find ways to offer their existing services on the Web and create new services just for the Web. As you learned earlier in this tutorial, Web portal sites such as Yahoo! offer free online games to attract visitors. Many of these sites, including Yahoo!, are now offering premium games. Site visitors must pay to play these premium games, either by buying and downloading software to install on their computers or by paying a subscription fee to enter the premium games area on the site. Game sites operated by Microsoft, Sony, Electronic Arts, and Real.com are among the most popular sites that offer premium subscription game services. Most of the gaming sites charge a monthly fee of $5 to $10 for access to all their fee-based games. The Electronic Arts home page, shown in Figure 10-7, includes paid advertising, a link to free online games, and links to games available by subscription and by paid download.
As more households obtain broadband access to the Internet, an increasing number of companies are providing streaming video of concerts and films to paying subscribers. RealNetwork's RealOne SuperPass service, for example, includes sporting events, music videos, comedy, and other entertainment offerings for a monthly fee.

The main technological challenge these companies face is that, unlike broadcast television stations, each additional customer that downloads a video stream requires that the provider purchase additional bandwidth from its ISP. Television broadcasters need only pay the fixed cost of a transmitter because the airwaves are free and carry the transmission to an unlimited number of viewers at no additional cost. In contrast, as the number of an Internet-based provider's subscribers increases, the cost of the provider's Internet connection increases. Thus, Web entertainment sites must charge a high enough monthly fee to cover the additional bandwidth costs and still make a profit. The Additional Information section of the Student Online Companion page for Tutorial 10 includes links under the heading "Direct Fee Game and Entertainment Sites" that you can use to explore sites that offer games or other content available by subscription.

Services more sophisticated than games or entertainment are also available on the Web. Sites that charge fees for specific professional services are increasingly appearing on the Web. This type of service is more similar to Omega's offerings than the games and
entertainment services. Site visitors can prepare their tax returns online at the H&R Block or TurboTax sites. PrePaidLegal.com offers legal services on its Web site. Law OfficeLive, shown in Figure 10-8, offers the services of attorneys who will review your case online.

![Law Office Live home page](Image)

Individual law and accounting firms also offer various professional services on the Web. Sites such as Resume.com offer resume preparation services for a fee. The Additional Information section of the Student Online Companion page for Tutorial 10 includes links under the heading “Professional Services Sites” that you can use to explore the sites mentioned here.

Another industry that uses the direct fee revenue model for its Web sites is the travel industry. Travel agents earn commissions on each airplane ticket, hotel reservation, auto rental, cruise, or vacation package that they book. In most cases, the transportation or lodging provider pays these commissions to the travel agent. Thus, the travel agency revenue model provides travel advice and then receives a fee from the travel service provider for handling a transaction. The value added by a travel agent is that of information consolidation and filtering. A good travel agent knows many things about the traveler’s destination and knows enough about the traveler to select the information elements that will be useful and valuable to the traveler. Computers, particularly computers networked to large databases, are very good at information consolidation and filtering. In fact, travel agents have used networked computers for many years to make reservations for their customers.

When the Internet emerged as a new way to network computers and then became available to commercial users, many new travel agencies began doing business on the Web. Existing travel agencies did not, in general, rush to the new medium. They believed that the key value they added, personal customer service, could not be replaced with a Web site. Therefore, the first Web-based travel agencies were new market entrants such as Travelocity and Expedia. These sites, along with later entrants such as Hotels.com and
Orbitz, are among the most visited electronic business sites on the Web. The Orbitz home page appears in Figure 10-9.

In addition to earning commissions from the transportation and lodging providers, Web-based travel sites generate advertising revenue from ads placed on their travel information pages. These ads let advertisers target customers without obtaining demographic details about them. For example, a customer who is booking a flight to Boston might see a banner ad for a hotel in Boston on the page that lists airline ticket options. The Additional Information section of the Student Online Companion page for Tutorial 10 includes links under the heading “Online Travel Agencies” that you can use to explore the Web sites mentioned here.

Travel agency sites are threatening the existence of many traditional travel agents. The removal of an intermediary from an industry, such as the traditional travel agencies in this case, is called disintermediation. The introduction of a new intermediary into an industry, such as the travel agency Web sites in this case, is called reintermediation.

Auto dealers buy cars from the manufacturer and sell them to consumers. They provide showrooms and salespeople to help customers learn about product features, arrange financing, and make a purchase decision. Autobytel.com and other online firms will locate dealers in the buyer’s area who are willing to sell cars for a small premium over the dealer’s nominal cost. The buyer can purchase the car from the dealer without negotiating its price with a salesperson. Autobytel charges participating dealers a fee for this service. Autobytel is disintermediating the salesperson and reintermediating itself into the value chain. The consumer spends less time buying the car and often pays a lower price; the dealer pays a fee to Autobytel that is lower than the commission it would otherwise pay to its salesperson.
Stock brokerage firms also use a fee-for-transaction model. They charge their customers a commission for each trade executed. Online brokers such as E*Trade and Ameritrade are threatening traditional brokerage firms by offering trading over the Web. Your Student Online Companion includes links to auto buying sites and online brokerage firms in the Additional Information section for Tutorial 10.

Other companies that offer transaction-based services for a fee on the Web include event ticket agencies, mortgage lenders and brokers, banks, and insurance brokers. After you present your findings to Steve, he agrees that many people are finding the Web to be a good place to obtain advice and help with transactions of various kinds. You both decide that Omega might want to consider offering some fee-based recruiting and benefit plan management services on the Web. In fact, Steven is convinced that offering benefit plan management services online might let Omega serve the small business market. The company has never targeted small businesses because the fixed overhead costs of managing client accounts are high and need to be spread over several hundred client employees. By offering benefit plan management online instead of in person, Omega could reduce its costs enough so that it could compete in the small business market. In the next session, you will learn more about how companies are using the Web to reduce the cost of operations.

Session 10.1 Quick Check

1. How can a not-for-profit organization engage in electronic commerce?

2. True or False: The business processes that a company uses to find new customers, make sales, and deliver the goods or services that it sells are collectively referred to as the company’s business model.

3. The ability of a company to generate more revenues or incur lower costs than other companies in its industry is called ____________.

4. What steps are followed by a mail-order catalog retailer when it opens an online site?

5. Companies that sell items online and through other marketing channels (such as physical stores or telephone and mail-order operations) often worry that their online sales take away from their sales in the other channels, which is a problem that is called ____________.

6. True or False: An online magazine must decide to either sell subscriptions to its Web site or sell space on the site to advertisers.

7. Delivering ads to site visitors with specific demographic characteristics is part of a strategy called ____________ ____________.

Session 10.2

Using the Web to Reduce Operational Costs and Increase Efficiency

In Session 10.1, you learned how companies can use electronic commerce to generate revenue. Of course, companies can earn more money by either increasing revenue or reducing costs. The real challenge is using the Internet to reduce costs or increase efficiency. (Increased efficiency makes the amount spent on a particular cost do more work.) The activities that companies undertake to accomplish these goals are sometimes called cost-reduction activities.
History of Business Cost Reductions Using Electronic Technologies

Although the Internet and the Web have made electronic commerce possible for many businesses and individuals, electronic commerce has existed for many years. For decades, banks have been using electronic funds transfers (EFTs, also called wire transfers), which are electronic transmissions of account exchange information over private networks. Businesses also have engaged in a form of electronic commerce known as electronic data interchange for many years. Electronic data interchange (EDI) occurs when one business transmits computer-readable data in a standard format to another business. The standard formats used in EDI have been designed to contain the same information that businesses would include in standard paper forms such as invoices, purchase orders, and shipping documents.

For EDI to work, both parties to the transaction must have compatible computer systems, must have some kind of communications link to connect them, and must agree to follow the same set of EDI standards. When two businesses meet these three criteria, they are called trading partners. Figure 10-10 compares the paper flow that occurs in a traditional sale-purchase transaction with the electronic information flow that occurs when two businesses use EDI.

EDI replaces the paper purchase order and invoice with electronic messages. When it was originally introduced, EDI required trading partners to purchase expensive computers and maintain communication links between them; these costs were prohibitive for smaller businesses. However, as large businesses realized cost savings from EDI, they began requiring all of their suppliers to use it. Installing EDI systems presented great difficulties for many smaller firms that wanted to sell products to larger firms but could not afford to implement EDI. However, as the cost of computers decreased and the availability of communications links (including the Internet) increased, many more small firms were able to participate as EDI trading partners.

The transaction shown in Figure 10-10 is not complete; for example, it does not show the buyer’s payment for the goods received. To consummate the traditional transaction, the buyer sends a check to the seller in payment for the goods received. Early EDI implementations used electronic transfer for the transaction information but still handled payments by mailing checks. As EDI became more common, trading partners wanted to handle the payments electronically, too. When EDI includes payment information, it is called financial EDI.
Although banks use EFTs to transfer funds for their own accounts and for large customer transactions that require immediate settlement, EFTs are too expensive to use for large volumes of ordinary business transactions. Banks settle most of their customers’ business transactions through automated clearinghouses (ACHs), which are systems created by banks or groups of banks to electronically clear their accounts with each other. Many individuals have their employers make ACH deposits of their paychecks or use ACH withdrawals to make their monthly car payments.

As the number of businesses using EDI has grown, the demand for efficient networking and payment systems has increased. Businesses called value-added networks (VANs) were created to meet the demands imposed by EDI. A VAN accepts EDI transmissions in a variety of formats, converts the formats as needed, ensures that the EDI transmissions are received and acknowledged, and can forward the financial transaction instructions to the trading partners’ banks or ACHs. A VAN is a neutral third party that can offer assurances and dispute-resolution services to both EDI trading partners.

Reducing Transaction Costs

As you think about how buyers and sellers might use the Web to reduce the cost of each step, you begin to consider how buyers might use the Web to search for products. The Web can help buyers conduct their information searches more cheaply and efficiently than by making telephone calls, sending faxes, or driving from store to store in hopes of finding the right product at the right price. In fact, some firms have started services that help buyers find products. One of these firms is Price Watch. The Price Watch home page is shown in Figure 10-11.
You remember that you wanted to upgrade the memory on your desktop computer, but you have been so busy that you have not had time to shop for it. You decide to give Price Watch a try.

To use price comparison Web sites to search for a specific item:

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, click the Session 10.2 link, and then click the Price Watch hyperlink.

2. Click the System hyperlink under the Memory heading. The page that loads lists some memory chips and includes a search box so you can search within the category. Dell manufactured the computer, so you will search for memory products that work in Dell computers.

3. Type Dell in the Search Category text box and then click the Search Category button. The Price Watch site returns a list of memory chips for Dell computers that are offered for sale by a variety of vendors (who voluntarily supply information to Price Watch). The products listed include the full range of memory types for all kinds of Dell computers, ranging from laptops to the largest server computers that Dell makes. For each item, the search results page shows the brand, product name, description, price, shipping costs, and information about the dealer offering the item. The results page includes a hyperlink to each dealer’s site that you can click to make your purchase.

Other comparison shopping sites operate their own Web robots (bots) that search the Web and find price information from vendors’ Web sites. MySimon is an example of a bot-based comparison shopping site.

4. Return to the Student Online Companion page for Session 10.2, if necessary, and then click the mySimon hyperlink and wait while the mySimon home page loads in your Web browser.

5. Click the Computer Hardware link, and then click the Memory link on the next Web page that loads.

6. Type Dell in the Your Search text box, and then click the Search button that is located below the text box. (The Your Search text box is located under the heading “Refine Search in this department”; it is not the Search text box at the top of the Web page.)

7. Examine the search results page. See Figure 10-12. Depending on the available products at the time of your search, you might find many similar entries.
Figure 10-12

Search results (your results might differ)
You now begin to think about how sellers can use the Web to reduce costs on their side of the purchase transaction. One of the most expensive components of such transactions can be the provision of after-sale support. After-sale support is especially high for complex technology products such as computers and electronic equipment. For example, many computer printers use software drivers to translate the information a computer sends to them into printing instructions. As computers improve and new software becomes available, printer manufacturers can update their printer driver software to take advantage of new features and capabilities. The traditional method of providing this software on disk to customers who have purchased printers has always been difficult and expensive for printer manufacturers.

You remember that Steven’s executive assistant, Connie, was complaining this morning that she had just installed some new software on her computer that would not print correctly on her Hewlett-Packard printer. You offer to obtain an updated printer driver for her from Hewlett-Packard’s Web site.

To find printer driver software for a Hewlett-Packard printer:

1. Return to the Student Online Companion page for Session 10.2, if necessary, and then click the Hewlett-Packard hyperlink.
2. Click the support & drivers link.
   **Trouble?** Web sites often change the specific names and locations of their links. If you cannot find a link with this name, look for a link with a similar name.
3. Navigate the site to find a page that allows you to search for drivers by specific product names. In the search text box on that page, type **LaserJet 4000** (the name of Connie’s printer), and then click the button or link that activates the search.
4. Continue your navigation until you find a page similar to the one shown in Figure 10-13. This page provides links to the printer drivers for Connie’s printer for a number of different operating systems. The page also includes links to other information resources that Hewlett-Packard customers can use to help themselves without needing to call a Hewlett-Packard representative during business hours or wait for a disk to arrive in the mail—all of which saves Hewlett-Packard a significant amount of money. The Web allows Hewlett-Packard to provide good customer service at a lower cost.
You stop by Connie’s office and show her how to use the Hewlett-Packard site to find the printer driver she needs. A short time later, Connie has downloaded and installed the updated printer driver and her new software is working with the printer.
Improving Operational Efficiency with Intranets, Extranets, and Automated E-mail

All of Omega’s divisions have regular training programs for staff members to help them stay current with changing laws and regulations in their areas. Omega’s internal training group must let employees know about the training opportunities and schedule them around employees’ work schedules. These staffing and training schedules can be difficult to coordinate. Steven suggests that Omega might place a master schedule online that employees can access through Web browsers on their office or home computers. These Web pages could also announce the training programs and allow employees to sign up for them. Omega’s training division also would like to offer its programs to clients online. Steven suggests that it might be wise to try online course delivery in-house with Omega employees first, so the mistakes made while learning will be with employees and not clients.

Steven also would like to promote and sell Omega’s new services to existing clients. He would like to you investigate using e-mail to send this information.

Using Intranets and Extranets

A set of Web pages or sites that is accessible only to employees of a company is called an intranet. Many companies use intranets to reduce operational costs and increase efficiency. As Omega gains experience with its online training activities, it can give clients access to the Web pages with the training program. When an intranet is made available to users outside the company in this way, it is called an extranet.

All the major overnight freight companies, including FedEx, UPS, DHL Worldwide Express, and Airborne Express, offer package tracking services on their Web sites. These package tracking services are an example of an extranet. The customers must have either a package tracking number or a shipper’s account with the company to obtain the tracking information. The Additional Information section of the Student Online Companion page for Tutorial 10 includes links under the heading “Overnight Freight Companies” that you can use to explore these sites.

Many companies use intranets and extranets to coordinate employee, supplier, and customer activities. However, smaller companies that cannot afford to create a dedicated intranet or extranet can obtain some of their benefits by using a Web portal site. As you learned in Session 10.1, Web portals offer services to site visitors so that those visitors will spend time on the site and view advertising for which the portal is paid. The services that Web portals offer vary from site to site, but usually include Web-based e-mail accounts and a customizable personal home page. Some Web portals offer even more comprehensive services, such as online calendars and address books. Three of the leading portal sites that offer one or more of these features are Excite, Lycos, and Yahoo! You decide to examine these sites so you can report back to Steven with information about these portal sites.

To examine the Excite portal site:

1. Return to the Student Online Companion page for Session 10.2, if necessary.
2. Click the Excite link to open the Excite portal home page shown in Figure 10-14.
3. Click the **Join Now** link to display the Excite join now! page shown in Figure 10-15. (Your page might look different.) Excite, like most portals, asks for information about its members. The page also includes a brief statement about the privacy of information you provide. You should always consider the terms of a site’s privacy policy before you decide to provide personal information.
4. Return to the Student Online Companion page for **Session 10.2** and click the link to **Lycos**. Examine the page and identify the services offered by the Lycos portal.

5. Return to the Student Online Companion page for **Session 10.2** and click the link to **Yahoo!**. Examine the site and identify the services offered by the Yahoo! portal.

6. Return to the Student Online Companion page for **Session 10.2**.

Steven is excited about the potential uses of intranets and extranets at Omega to provide services to the firm’s clients at a lower cost. Putting the training programs on the Internet will save considerable printing and shipping costs because Omega will no longer need to send out the thick manuals and learning guides that it now uses in its training programs.

### Using Automated E-Mail Messaging

Steven would like to use extranets to sell new services to existing clients, but is concerned that the managers at Omega’s clients who make the purchase decision might not be the same people that are using the extranet. He asks you about using e-mail messages to send clients information about new products. You agree that e-mail can be a good way to stay in contact with existing customers—but only if they agree to receive it. Marketing experts recommend that automatically generated e-mail messages with announcements of new products and services not be sent more often than once a week to clients.

Many companies offer e-mail management services. You can learn more about these companies by exploring the links in the Additional Information section of the Student Online Companion page.
Online Companions page for Tutorial 10. Look for the heading “E-Mail Marketing Companies.” The home page of one of these companies, Digital Impact, is shown in Figure 10-16.

Online Auctions

One of the more interesting and innovative implementations of electronic commerce is the creation of Web sites that conduct online auctions. Although some of these sites offer merchandise that is the inventory of the Web site owner, most of these sites auction the property of others, much as an auctioneer would at a public auction. Online auctions provide both revenue opportunities and cost-reduction opportunities for businesses.

Each online auction site establishes its own bidding rules. Most auctions remain open for a few days or a week. Some sites provide automated agents that bidders can instruct to place bids as needed to win the auction, subject to a maximum limit set by the bidder. Because bidders face a significant risk of buying a misrepresented product in a sight-unseen online auction, some auction sites offer mediation/escrow services that hold the buyer's payment until he or she is satisfied that the item matches the seller's description. The advantages of conducting online auctions include a large pool of potential bidders, 24-hour access, and the ability to auction hundreds of similar items simultaneously.

In 1995, Pierre Omidyar was working as a software developer and, in his spare time, operating a small Web site that provided updates on the Ebola virus. Omidyar decided to add a small auction function to his Web site to earn some money so he could continue operating it. Interest in the site's auctions grew so rapidly that within a year, he had quit his job to devote his full energies to the Web auction business he had created. By the end of its second year in operation, Omidyar's Web site, which he called eBay, had auctioned more than $95 million worth of goods and was profitable.
Because eBay was one of the first auction Web sites and because it has pursued an aggressive promotion strategy, it has become the first choice for many people who want to participate in auctions. Both buyers and bidders benefit from the large marketplace that eBay has created. eBay's early advantage in the online auction business will be hard for competitors to overcome.

You decide to take a break from your work for Omega and use the Web to pursue one of your hobbies, collecting guitars. You are especially fond of a series of guitars made for many years by the Gibson Company that were originally designed and played by Les Paul. You decide to search for auctions of Les Paul model guitars on eBay.

**To search for auctions on eBay:**

1. Return to the Student Online Companion page for *Session 10.2*, if necessary, and then click the *eBay* hyperlink. See Figure 10-17.

**Figure 10-17** Home page of eBay

To search all auctions here

To browse categories by clicking these links

Trouble? If the page you see does not look like Figure 10-17 and includes a “Welcome to eBay” message, find the link that leads to the eBay home page for eBay members and click that link to open the page.

2. Type *Les Paul* in the search box near the top of the eBay page, and then click the *Find It* button. The next page that opens should be either a list of auctions or a page with links to categories of auctions that contain the key words “Les Paul.” If such a page appears, find a category that will likely lead you to guitars, such as “Musical Instruments” or “Guitar” to view the auctions.

On the results page that opens, you might see a few auctions of old audio recordings made by Les Paul and Mary Ford, but most of the several hundred auctions listed should be for...
Gibson guitars. The first auctions listed might be "featured" auctions—the seller has paid eBay an extra fee to have the auction listed first. The other auctions are listed in the order of the auction expiration date, with the auctions ending soon listed first. You can change the order in which the auctions are listed, which is helpful for a search such as this that returns hundreds of listings.

3. Click the price link at the top of the auction listings. This will sort the auctions in descending order of the highest bid made thus far in the auction. If no bids have been made, the price used is the minimum price that the seller has placed on the auction. Any featured auctions will still be listed at the top of the results page.

4. Click the links to several of the auctions. The auction page will show information about the auction including the eBay ID of the seller, the current bid and the number of bids made in the auction, and the auction's closing date and time. Many of the auctions will include detailed photographs of the guitar.

5. Close your Web browser.

Sellers and buyers must register with eBay and agree to the site's basic terms of doing business. Sellers pay a listing fee and a sliding percentage of the final selling price. Buyers pay nothing. In addition to the basic fees, sellers can choose from a variety of enhanced and extra-cost services, including having their auctions listed in bold type or included as featured auctions which appear at the top of bidders' search results pages.

In an attempt to address bidder concerns about seller reliability, eBay has instituted a rating system. Buyers can submit ratings of sellers after doing business with them. These ratings are converted into graphics that appear with the seller's nickname on each auction in which that seller participates. Although this system is not without flaws, many eBay customers feel that it affords them some level of protection from unscrupulous sellers.

Because one of the major determinants of Web auction site success is attracting enough buyers and sellers to create markets for enough items, some Web sites that already have a large number of visitors are entering this business. Sites such as Yahoo! Auctions have added auctions similar to those available on eBay. Yahoo! Auctions had some early success in attracting sellers, in part because it offered its auction service to sellers at no charge. It now charges sellers just as eBay does.

Yahoo! Auctions has been less successful in attracting buyers, resulting in less bidding action in each auction than generally occurs on eBay. It is possible that Yahoo! Auctions will be able to convince its visitors to participate in its auctions with more success. In Japan, Yahoo! Auctions began operations six months before eBay and now holds more than 90% of the online auction market in that country. The potential for success in the United States and other markets does exist for Yahoo! because it is one of the most-visited sites on the Web.

Amazon also operates auctions on its site. Although the number of auctions is small, Amazon is aggressively marketing its auction business. Some industry observers note that Amazon may earn more by charging a commission on the auction of a used book than it could earn by selling the same title as a new book! With more than 30 million registered users of its existing book, music, video, and other sales pages, Amazon is truly a potential challenger to eBay.

When Amazon entered the online auction business, it announced its “Auctions Guarantee.” This guarantee directly addressed concerns raised by eBay customers who had been cheated by unscrupulous sellers. When Amazon opened its auctions site, it agreed to reimburse any buyer for merchandise purchased in an auction that was not delivered or that was “materially different” from the seller's representations. Amazon limited its guarantee to items costing $250 or less. (However, buyers of more expensive items generally protect themselves by using a third-party escrow service, which holds the buyer's payment until he or she receives and is satisfied with the purchased item.)
Amazon's advantage was short-lived, however. Before bidders had a chance to move to Amazon auctions, eBay responded by offering its customers a similar guarantee.

Businesses are turning to online auctions to improve the process of clearing out old and slow-moving inventory. In the past, most companies would call a liquidation broker to help dispose of unwanted inventory. A liquidation broker is an intermediary who matches sellers of obsolete inventory with purchasers who are looking for bargains. Liquidation brokers and companies that were large enough to arrange their own liquidation sales often found it very expensive to set up a physical auction for obsolete inventory. The greatest expenses were leasing a place to hold the auction and mailing notices of the auction to a sufficient number of people to create a decent-sized bidding pool. It was also difficult to accumulate a wide enough variety of items to attract bidders. Bidders who were interested in only one or two items would be reluctant to attend the auction. As a result, inventory sold this way seldom returned more than 10% of its cost.

The Internet changed the economics of liquidation auctions. Today, many liquidation brokers are opening Web auctions to obtain a better range of bids. Auctions are a good way for sellers to obtain the highest possible price if the pool of bidders is large enough. An auction on a Web site can attract bidders from all over the world and these bidders can select the specific item on which they want to bid. The Additional Information section of the Student Online Companion page for Tutorial 10 includes links to several liquidation broker sites that offer auction services under the heading “Liquidation Brokers.”

Some companies are too small to operate their own liquidation sites or to attract the interest of liquidation brokers. These companies have found eBay and similar consumer-oriented auction sites to be useful tools for selling their excess inventory and used equipment. The reduction in transaction costs is a powerful force behind all Web auction sites and makes it possible for individuals and small companies to obtain decent prices for unwanted items.

**Consumer Concerns**

Participants in electronic commerce have two major concerns. The first is for transaction security. Buyers in an electronic marketplace often do not know who is operating a Web site from which they would like to make a purchase. They also desire assurance that the payments they make for goods purchased via the Internet are secure.

Buyers’ second major concern is that their privacy not be violated in the course of conducting electronic commerce. Web sites can gather a great deal of information about their customers, even before customers purchase anything from the site. The Web electronic commerce community has made efforts toward ensuring both transaction security and buyer privacy, but these efforts are not yet complete. Many potential consumers are reluctant to make purchases over the Internet because of continuing concerns about these two issues. Several assurance providers have begun operations in recent years. An assurance provider is a third party that, for a fee paid by the electronic commerce Web site, will certify that the site meets some criteria for conducting business in a secure and privacy-preserving manner.

**Transaction Security and Privacy**

Potential customers worry about a number of issues when they consider dealing with a Web-based business. They might wonder whether the firm is a real company that will deliver the merchandise ordered or, if the merchandise is defective, will replace it or refund the purchase price within a reasonable period. Potential customers of any business worry about the same issues; however, the virtual nature of a Web electronic commerce site increases these concerns. In addition, potential customers are concerned about the security of their credit card numbers as those numbers travel over the Internet.
As you learned earlier in this book, the SSL security protocol encrypts information flowing between a Web server and a Web client. Many Web sites involved in electronic commerce use the SSL protocol to protect sensitive information as it travels over the Internet.

A greater concern is how electronic commerce Web sites store their customer information. Many sites store their customers’ credit card numbers so that the customers do not have to type the card numbers every time they visit the site to buy something. Of course, the computer that stores these card numbers is connected (directly or indirectly) to the Internet. Any computer that is connected to the Internet is subject to attack from persons outside the company.

There have been a number of widely reported cases in which an intruder has broken into an electronic commerce site’s computer and stolen names, addresses, and credit card information. Sometimes, these individuals, called hackers or crackers, have even posted the stolen credit card information on the Internet.

Many potential customers of Web-based businesses are also concerned about their privacy. Web sites can collect a great deal of information about customers’ preferences, even before they place an order. By recording a user’s clickstream, which is a record of which pages the user visited on a site, the Web server can gather extensive knowledge about that visitor. Many Web sites use clickstream information to display different ad banners to different visitors.

No general standards currently exist in the United States for maintaining confidentiality regarding clickstream information, much less general identifying information about Web site visitors and customers. Many business Web sites include statements of privacy policy directed at concerned customers, but no U.S. laws exist requiring such statements or policies.

The Electronic Communications Privacy Act of 1986, which was enacted before most people were using the Internet, does not include rules specifically designed to protect the privacy of persons using Web sites to conduct transactions. The Children’s Online Privacy Protection Act of 1998 (often referred to as COPPA) does make it illegal for Web sites to collect identifiable information from children under the age of 13 without first obtaining their parents’ consent.

Assurance Providers

To fill the need for some kind of assurance over Web site transaction security and privacy policies, several assurance providers have started offering various kinds of certifications. Web sites can purchase these certifications and display the logo or seal of the assurance provider on the Web site for potential customers to examine. Most of these logos are hyperlinks to the assurance provider’s site, at which customers can find out more about the nature of the specific assurances given by that provider. Currently, there are five major assurance providers: the Better Business Bureau (BBB), TRUSTe, the International Computer Security Association (ICSA), VeriSign, and WebTrust.

The Better Business Bureau’s BBBOnLine certification program grants a Web site the right to use its logo after it has joined the BBB; been in business for at least one year; compiled a satisfactory complaint-handling record; and agreed to follow BBB member guidelines for truthful advertising, prompt response to customer complaints, and binding arbitration of customer disputes. The BBB conducts a site visit during which it verifies the street address, telephone number, and existence of the business.

The TRUSTe program focuses on privacy issues. To earn the right to display the TRUSTe logo, a Web site must explain and summarize its information-gathering policies in a disclosure statement on the site. The site must adhere to its stated policies and several other guidelines concerning the privacy of communications. TRUSTe enforces its program by various methods, including surprise audits that it and two independent accounting firms conduct.
The ICSA is an independent association that has developed a series of computer security certifications. The goal of ICSA Web certification is to reduce Web site risks and liability for the site and its customers. ICSA conducts an initial on-site evaluation using its certification field guide and uses subsequent remote testing and random spot-checking of site availability, information-protection measures, and data-integrity provisions.

VeriSign provides a range of services to electronic commerce Web sites, including certification of secure server status and EDI certifications. It is also a partner with the American Institute of Certified Public Accountants (AICPA) in the WebTrust program. The WebTrust program is a comprehensive assurance that requires reviews by a licensed CPA (or Chartered Accountant in Canada) before the site is approved. The review includes examination of Web site performance disclosures, such as delivery times and handling of customer complaints. The site is granted a WebTrust logo only after it satisfies a number of criteria relating to business practices, transaction integrity, and information protection. The WebTrust program requires recertification every 90 days.

Another useful type of service that can help people evaluate electronic commerce sites is the business rating service. BizRate.com, the most popular of these rating services, evaluates electronic commerce sites and publishes ratings for major sites. Links to assurance service providers and business rating service sites are included in the Student Online Companion for this tutorial in the Additional Information section under the heading “Assurance Providers and Rating Services.”

**Ethical Standards**

Companies that conduct business on the Web should try to follow the ethical standards that they would follow if they were doing business in the physical world. Pursuing business in an ethical manner helps promote a positive image of the business. Although high ethical standards can be more expensive, in the long run they can help establish a company’s reputation and can increase the level of trust that customers, suppliers, and employees have in the company.

When customers are active on the Web, ethical lapses can cause immediate damage to a company’s reputation. It is far better to make the right decision than to have to repair a damaged reputation after the fact. For example, in early 1999, eBay faced an ethical dilemma. Several newspapers ran stories that described sales of illegal items, such as assault weapons and drugs, on the eBay auction site. At the time, eBay was starting about 250,000 new auctions each day and its policy was to investigate any claims that illegal items were being auctioned on the site. However, eBay did not actively screen or filter listings before the auctions started.

Even though eBay was not obligated by law to screen items auctioned, and even though the screening is fairly expensive to do, eBay managers decided that screening for illegal and copyright-infringing items would be in the best long-run interest of eBay. The team decided that such a decision would send a signal about the character of the company to its customers and the public in general. The eBay managers also decided to refuse auctions of firearms. Many eBay users were unhappy about this decision because the sale of firearms, when done properly, is completely legal. The decision also meant that eBay would lose the auction business of gun collectors and gun dealers. However, eBay managers again decided that presenting an overall image of an open and honest marketplace was so important to the future success of eBay that it chose to ban all firearm sales.

**International Nature of Electronic Commerce**

As you have learned in this session, many of the advantages that electronic commerce offers arise from its ability to reduce transaction costs. By making communication quick and inexpensive, technology makes commerce less expensive for both businesses and
individuals. In addition to being inexpensive and easy to use, the Internet and the Web also offer people an unprecedented degree of geographic reach.

Language Issues

The Internet brings people together from every country in the world because it reduces the distances between people in many ways. The predominant language on the Web is English, although sites in other languages and in multiple languages are appearing with increasing frequency. Once a business overcomes the language barrier, the technology exists for it to conduct electronic commerce with any other business or consumer, anywhere in the world.

To address the language issue, many companies hire a translation firm to translate their existing Web pages into other languages. Although computer-automated translation (often called machine translation) can provide rough translations very quickly (up to 400,000 words per hour), human translators must refine these translations before they are accurate. For example, Mexican Spanish is different from the Spanish used in Spain or in South America. Human translators can make adjustments for local versions of a language and can help ensure that the Web site is translated in a way that does not violate local customs. Translation that takes into account the culture and customs of the country is called localization.

Human translation can be an expensive proposition, with translation fees ranging from 25 to 90 cents per word; languages that are complex or that are spoken by fewer people are even more expensive. Figure 10-18 shows the Web site of FreeTranslation.com, one of these translation firms. You can see that the company offers additional human translation services after it provides the free online machine translation of the text. You can learn more about the firms that provide translation services by exploring the links under the heading “Translation Services” in the Additional Information section of the Student Online Companion page for Tutorial 10.

Legal Issues

Businesses on the Internet must adhere to the same laws that regulate the operation of all businesses. As companies grow, they become subject to many more laws and regulations. Electronic commerce activities can expose even small businesses to a broader range of
laws and regulations than they would face if they were not operating on the Internet. As you learned in the previous section, a business on the Web becomes an international business immediately.

In many cases, an e-business can become subject to laws and taxes about which its managers are unaware. Unfortunately, the political and legal structures of the world have not kept up with Internet technology, so doing business internationally presents a number of challenges. Currency conversions, tariffs, import and export restrictions, local business customs, and the laws of each country in which a trading partner resides can each make international electronic commerce difficult. Many of the international issues that arise relate to legal, tax, and privacy concerns. Each country has the right to pass laws and levy taxes on businesses that operate within their jurisdictions. Countries that are members of the European Community (EC), for example, have adopted very strict laws that limit the collection and use of personal information that companies gather in the course of doing business with consumers. U.S. companies that do business in the EC must comply with these laws, which are much more restrictive than the laws in the United States. Within the United States, individual states and counties have the power to levy sales and use taxes on goods and services. In other countries, national sales and value-added taxes are imposed on an even more comprehensive list of business activities.

Complying with all of these laws and regulations can be difficult for small businesses that want to operate electronic commerce Web sites. Therefore, many smaller sites restrict the countries to which they will deliver merchandise or in which they will provide services. These Web sites can place terms of service statements on their sites to protect themselves from laws and regulations of which they might be unaware. A terms of service (TOS) statement can include rules for site visitors, a statement of copyright interest in the site design and content, and can restrict the types of business that a visitor can conduct with the site. Most sites place their terms of service statements on a separate Web page and provide a link to it from the site's home page. These links are typically titled “Terms of Service,” “Conditions of Use,” “User Agreement,” or something similar. You can learn more about the legal environment of electronic commerce by exploring the links that appear under the heading “Law and Government Regulation Sites” in the Additional Information section of the Student Online Companion page for this tutorial.

**Future of Electronic Commerce**

The Internet has allowed far more businesses, organizations, and individuals to become interconnected by their computers than the pioneers of EDI and EFT ever could have imagined. The Web has given the Internet an easy-to-use interface. The combination of the Web's interface and the Internet's extension of computer networking have opened new opportunities for electronic commerce. Businesses that in the past sold retail goods to consumers through catalogs using mail or telephone orders can now use the Internet to make shopping more convenient. Other retailers, such as booksellers, can use large-volume buying power to provide Internet shoppers with low prices and a wide variety of products. Information providers, such as newspapers, magazines, and newsletters, find that the Internet offers new ways to sell existing products and platforms on which to deliver entirely new products. Software manufacturers see that the Internet is an excellent vehicle for distributing new products, delivering upgrades to existing products, and providing low-cost support to users. The immediacy of the medium offers businesses, such as stockbrokers and travel agencies, an attractive way to interact with their customers.

**Session 10.2 Quick Check**

1. Briefly define the term electronic data interchange (EDI).
2. Banks use electronic funds transfers (EFTs) for large transactions, but for small transactions they use ______________ ____________.
3. E-mail can be a good way for a company to stay in touch with its customers, but only if one important condition is met. Name and explain that condition.

4. What is an intranet?

5. Some companies are disposing of slow-moving or obsolete inventory by selling it on Web auction sites such as eBay instead of selling it through an(n) _____________.

6. Name two concerns that potential customers often have about making a purchase from a Web site.

7. Briefly describe the role that assurance providers play in the conduct of electronic commerce.

**Tutorial Summary**

In this tutorial, you learned about Web strategies that companies use to generate revenues, increase operational efficiency, and reduce costs. The tutorial described several revenue models and explained how companies use the Web to reduce costs and improve efficiency. You learned about online auctions, which is a new type of business that did not exist before the Web, and that companies doing business on the Web have taken steps to reassure consumers that their transactions will be secure and that their privacy will be respected. Finally, you learned about the international, legal, and ethical environment in which electronic commerce operates.

**Key Terms**

- assurance provider
- automated clearinghouse (ACH)
- business model
- business processes
- business-to-business (B2B)
- business-to-consumer (B2C)
- business-to-government (B2G)
- cannibalization
- channel conflict
- clickstream
- competitive advantage
- consumer-to-consumer (C2C)
- crackers
- demographic information
- disintermediation
- dot-com
- electronic business (e-business)
- electronic commerce (e-commerce)
- electronic data interchange (EDI)
- electronic funds transfer (EFT)
- escrow service
- extranet
- financial EDI
- hackers
- intranet
- liquidation broker
- localization
- machine translation
- operations model
- pure dot-com
- reintermediation
- revenue model
- strategic alliance
- strategic partnership
- target marketing
- terms of service (TOS)
- statement
- trading partners
- transaction costs
- value-added network (VAN)
- Web portal (portal)
- wire transfer

**Review Assignments**

Steven is intrigued by many of the online business ideas you have identified. He would like you to undertake a competitive analysis in which you visit a few Web sites operated by other firms in Omega’s businesses. To summarize your findings, create a table with
Apply

Apply the skills you learned in this tutorial to shop for a new DVD player on the Web, and then evaluate the experience.

Case Problem 1

Dave Baker’s New DVD Player Your friend Dave Baker complains that his DVD player has recently started to randomly eject the DVD while he is watching a movie. You tell Dave that you can show him how to do comparison shopping on the Web for a new DVD player.

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, and then click the Case 1 link.
2. Click the buy.com link to open the buy.com home page, click the Electronics hyperlink near the top of that page to open the Electronics page, type DVD player in the search box at the top of the page, and then click the Go link. (Alternatively, you can click the DVD players link on the left side of the page.)
3. The search results page lists a number of DVD players with their part numbers, prices, and information about their current availability for shipment. Some buyers may make their selection using the brief descriptions that appear on this page, but many buyers want more information. To provide a customized level of product information on this site, buy.com formats the name of each DVD player as a hyperlink that you can click to learn more about that particular model. Click some of these hyperlinks to learn more about at least three DVD players that are currently for sale.
4. Return to the Student Online Companion page for Tutorial 10, and then click the Amazon.com link to open the Amazon.com home page. Click the Electronics link in the tab at the top of the page (or the Electronics link on the left side of the page).
5. Type DVD player in the Search text box, and then click the GO! button (or click the DVD players link on the left side of the page). The first page of search results lists a number of DVD players with their part numbers, prices, and current availability for shipment. The name of each DVD player is a hyperlink that you can follow to obtain more details about each DVD player, including customer reviews of the product and ratings of the reviews (each review has an indicator that states how many people found that review to be helpful). Click some of these hyperlinks to learn more about at least three DVD players that are currently for sale.

6. For each site, answer the following questions:
   a. Was the site easy to use? Why or why not?
   b. Did the site offer DVD players in which you would be interested?
   c. Did the site display product information that was easy to understand? Why or why not?
   d. Would you use this site to purchase items online? Why or why not?

7. Print one page of information about a particular DVD player from each site. On each page, indicate one helpful design feature.


Case Problem 2

Sagamore Community College Sagamore Community College (SCC) offers two-year associate degree programs in computer technologies. Because of its impressive array of computer laboratories and its state-of-the-art computer infrastructure, the college attracts students from a community that employs many high-tech workers. Unfortunately, SCC does not currently provide timely course and degree information on its Web site. Ernesto Cervantes, SCC’s director of Academic Computing, wants to change the SCC home page so students can customize it and use it as a Web portal site. Ernesto wants the portal to offer class lists, information about instructors, and course information. Ernesto would like you to review existing portal sites that can serve as examples for constructing SCC’s home page and make a recommendation regarding which features would be important to include in the design of SCC’s new Web portal.

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, and then click the Case 2 link.
2. Click one of the links to explore a Web portal site and review its elements. Identify features that would be important to include in the SCC portal design.
3. Repeat the previous step for at least two other links.
4. Write a report to Ernesto of about 500 words in which you list at least six elements that would be important to include in the SCC portal design. For each element, explain why you believe it is important and outline any problems you think SCC might face in implementing it.
5. Close your Web browser.

Case Problem 3

Dorm Lamps, Inc. Your friend Robin has invented a new high-intensity lamp that is an ideal product for college students who share dorm rooms. You and Robin have been selling the lamps for three months through word-of-mouth advertising on your campus. You would like to expand your sales to other college campuses. Robin suggests creating a Web page that will accept orders. The lamps are small and lightweight; therefore, they could be shipped to customers easily using a variety of methods. Because you are both college students with
no business experience, you wonder who will trust you or your Web site to deliver quality merchandise. You would like to investigate the terms and conditions of several Web site assurance providers to determine which, if any, you should use for the proposed site.

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, and then click the Case 3 link.
2. Click the BBBOnline link to open that page. Examine the Web site assurance criteria presented on this site and determine whether Dorm Lamps would qualify. Be sure to assess the approximate cost of obtaining this assurance.
3. Return to the Student Online Companion page for this tutorial, and then examine at least two of the other Web site assurance services listed for this case and evaluate the costs and benefits for Dorm Lamps to obtain each service.
4. Write a three-page summary of your findings. Be sure to recommend a specific assurance service or explain why none of the services you identified would be suitable for Dorm Lamps, Inc. Support your recommendation with facts and logical arguments.
5. Close your Web browser.

Case Problem 4

Battery World You have been using electronic devices such as calculators, cameras, and portable CD players for years. In your job, you use a PDA, a mobile phone, and a laptop computer. One frustration you have experienced using all of these devices is replacing the batteries. You realize that, as more electronic devices need more and different kinds of batteries, a business that offers a wide selection of batteries might be a good idea. Many of these batteries are rather expensive, but the batteries are small, lightweight, and easy to ship. Their high value-to-weight ratio makes batteries ideal products for online sales. After much research, you have decided to open a Web-based business, Battery World, which will stock a wide variety of batteries ready for overnight delivery. You have worked out many of the details of ordering and stocking your batteries, but you have not yet decided on how you might best ship them.

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, and then click the Case 4 link.
2. Click the FedEx hyperlink to open that page. Examine the services provided on the Federal Express Web site for overnight shipments. Include the elements of package tracking, obtaining rate information, and pickup and delivery services information in your study.
3. Return to the Student Online Companion page for Tutorial 10, and then click the UPS hyperlink. Examine the services provided on the UPS Web site for overnight shipments. Include the elements of package tracking, obtaining rate information, and pickup and delivery services information in your study.
4. Return to the Student Online Companion page for Tutorial 10, and then click the DHL hyperlink. Examine the services provided on the DHL Web site for overnight shipments. Include the elements of package tracking, obtaining rate information, and pickup and delivery services information in your study.
5. Write a two-page summary that includes a comparison of how easy each company’s site was to use as you searched it for the information you needed.
**Case Problem 5**

**Web Plants** You have a green thumb and have always enjoyed growing plants, so you have decided to start a company called Web Plants to sell green plants on the Web. But first, you want to learn all you can by studying the revenue and operations models of existing firms that sell flowers and related gift items on the Web. You learn that FTD.com started as the world's first “flowers-by-wire” service in 1910 and moved to the Web in 1994. The 1-800-flowers.com site is an outgrowth of that company's telephone order business. Newer entrants to the online flower industry, such as Proflowers.com, started their businesses on the Web and work with a very different business strategy.

Do the following:

1. Open the Student Online Companion page at www.course.com/newperspectives/internet5, click the Tutorial 10 link, and then click the Case 5 link.
2. Click the FTD.com link to open the FTD.com home page. Click the About Us hyperlink near the bottom of that page. The About Us page includes a history of the company and describes many of the details of its operations. Read this page carefully so you understand what FTD.com is, who its customers are, and how it accepts and delivers orders. You might also want to explore other pages on the site to learn more about how FTD.com does business.
3. Return to the Student Online Companion page for Tutorial 10, and then click the 1-800-Flowers link. Click the About Us hyperlink near the bottom of the 1-800-Flowers home page. The About Us page includes a company overview, information about the company's access channels, and a description of the flower shop network that fulfills the company's orders; read this page carefully. You might also want to explore other pages on the site to learn more about 1-800-flowers.com.
4. Return to the Student Online Companion page for Tutorial 10, and then click the Proflowers.com hyperlink. When the Proflowers.com home page opens, click the About Us hyperlink on the left side of the page. Explore the links on the About Us page, which lead to more information about the company and its business strategy. You might also want to explore other pages on the site to learn more about Proflowers.com.
5. Based on your examination of the three Web sites, create an overhead presentation in which you describe the revenue and operations models you plan to use for your new Web Plants business. In your presentation, be sure to explain which elements of the three Web florists’ business models you plan to emulate and which you plan to avoid, and explain why. Your instructor might ask you to share your findings with your class in a formal presentation.

**Lab Assignments**

The interactive Student Edition Lab on E-Commerce is designed to help you master some of the key concepts and skills presented in this tutorial. This lab is available online and can be accessed from the Tutorial 10 Web page on the Student Online Companion.
Quick Check Answers

Session 10.1

1. By conducting business-like activities; for example, an art museum could sell tickets to an upcoming exhibition.
2. False. This is the definition of a revenue model
3. competitive advantage
4. The company replaces or supplements its distribution of printed catalogs with a catalog on its Web site, which allows customers to place orders through the Web site.
5. cannibalization
6. False. An online magazine can do both, selling some content by subscription and making other content available at no cost with advertising support.
7. target marketing

Session 10.2

1. EDI occurs when one business transmits computer-readable data in a standard format to another business.
2. automated clearinghouses
3. Companies should always ask customers for permission before sending unsolicited promotional or informational e-mails.
4. a set of Web pages that is accessible only to employees of the company
5. liquidation broker or liquidation auction
6. transaction security and buyer privacy
7. They provide some assurance that a Web site processes transactions in a secure manner and/or follows its stated policies regarding the privacy of customer information.