



ebusiness: electronic business value

what's in IT for me?

Internet and communication technologies have revolutionized the way business operates, improving upon traditional methods and even introducing new opportunities and ventures that were simply not possible before. More than just giving organizations another means of conducting transactions, online business provides the ability to develop and maintain customer relationships, supplier relationships, and even employee relationships between and within enterprises.

As future managers and organizational knowledge workers, you need to understand the benefits ebusiness can offer an organization and your career, the challenges that accompany web

continued on p.58

CHAPTER OUTLINE

SECTION 3.1 >>

WEB 1.0: Ebusiness

- Disruptive Technologies and Web 1.0
- Advantages of Ebusiness
- The Four Ebusiness Models
- Ebusiness Tools for Connecting and Communicating
- The Challenges of Ebusiness

SECTION 3.2 >>

WEB 2.0: Business 2.0

- Web 2.0: Advantages of Business 2.0
- Networking Communities with Business 2.0
- Business 2.0 Tools for Collaborating
- The Challenges of Business 2.0
- Web 3.0: Defining the Next Generation of Online Business Opportunities

technologies and their impact on organizational communication and collaboration. You need to be aware of the strategies organizations can use to deploy ebusiness and the methods of measuring ebusiness success. This chapter will give you this knowledge and help prepare you for success in tomorrow's electronic global marketplace. ■

{SECTION 3.1}

Web 1.0: Ebusiness

LEARNING OUTCOMES

- L03.1** Compare disruptive and sustaining technologies, and explain how the Internet and WWW caused business disruption.
- L03.2** Describe ebusiness and its associated advantages.
- L03.3** Compare the four ebusiness models.
- L03.4** Describe the six ebusiness tools for connecting and communicating.
- L03.5** Identify the four challenges associated with ebusiness.

DISRUPTIVE TECHNOLOGIES AND WEB 1.0 L03.1

Polaroid, founded in 1937, produced the first instant camera in the late 1940s. The Polaroid camera, whose pictures developed themselves, was one of the most exciting technological

advances the photography industry had ever seen. The company eventually went public, becoming one of Wall Street's most prominent enterprises, with its stock trading above \$60 per share in 1997. In 2002, the stock dropped to 8 cents and the company declared bankruptcy.¹

How could a company such as Polaroid, which had innovative technology and a captive customer base, go bankrupt? Perhaps company executives failed to use Porter's Five Forces Model to analyze the threat of substitute products or services. If they had, would they have noticed the two threats—one-hour film processing and digital cameras—which eventually stole Polaroid's market share? Would they have understood that their customers, people who want instant access to their pictures, would be the first to try these alternatives? Could the company have found a way to compete with one-hour film processing and the digital camera to save Polaroid?

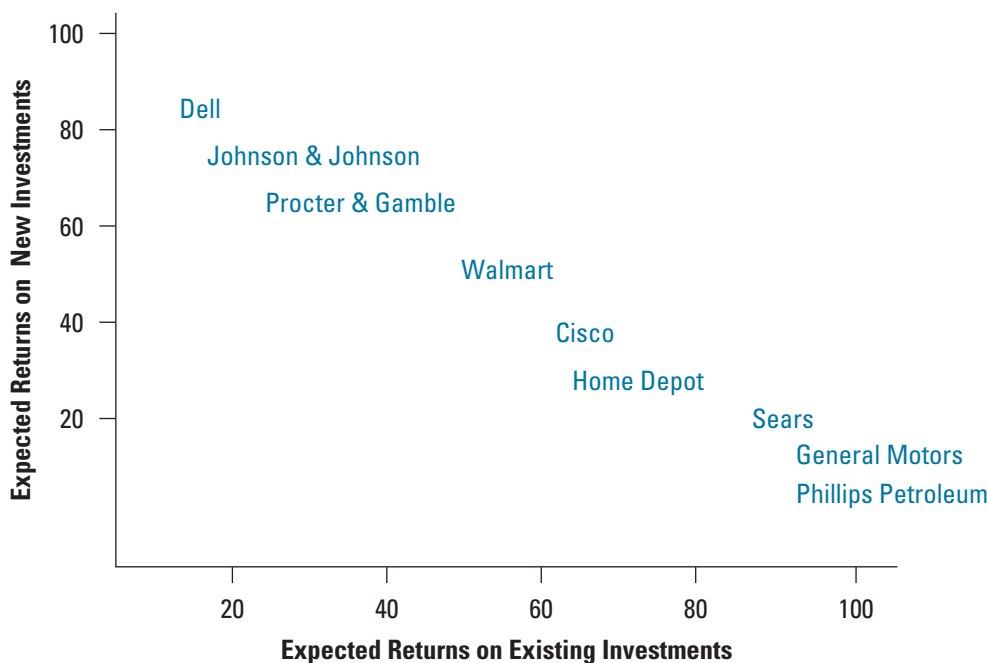
Many organizations face the same dilemma as Polaroid—what's best for the current business might not be what's best for it in the long term. Some observers of our business environment have an ominous vision of the future—digital Darwinism. *Digital Darwinism* implies that organizations that cannot adapt to the new demands placed on them for surviving in the information age are doomed to extinction.

L03.1 Compare disruptive and sustaining technologies, and explain how the Internet and WWW caused business disruption.

Disruptive versus Sustaining Technology

A *disruptive technology* is a new way of doing things that initially does not meet the needs of existing customers. Disruptive technologies tend to open new markets and destroy old ones. A *sustaining technology*, on the other hand, produces an improved product customers are eager to buy, such as a faster car or larger hard drive. Sustaining technologies tend to provide us with better, faster, and cheaper products in established markets. Incumbent companies most often lead sustaining technology to market, but they virtually never lead in markets opened by disruptive technologies. Figure 3.1 positions companies expecting future growth from new investments (disruptive technology) and companies expecting future growth from existing investments (sustaining technology).²

▼ **FIGURE 3.1** Disruptive and Sustaining Technologies



Disruptive technologies typically enter the low end of the marketplace and eventually evolve to displace high-end competitors and their reigning technologies. Sony is a perfect example. Sony started as a tiny company that built portable, battery-powered transistor radios. The sound quality was poor, but customers were willing to overlook that for the convenience of portability. With the experience and revenue stream from the portables, Sony improved its technology to produce cheap, low-end transistor amplifiers that were suitable for home use and invested those revenues in improving the technology further, which produced still-better radios.³

The Innovator's Dilemma, a book by Clayton M. Christensen, discusses how established companies can take advantage of disruptive technologies without hindering existing relationships with customers, partners, and stakeholders. Xerox, IBM, Sears, and DEC all listened to existing customers, invested aggressively in technology, had their competitive antennae up, and still lost their market-dominant positions. They may have placed too much emphasis on satisfying customers' current needs, while neglecting new disruptive technology to meet customers' future needs and thus losing market share. Figure 3.2 highlights several companies that launched new businesses by capitalizing on disruptive technologies.⁴

The Internet and World Wide Web—The Ultimate Business Disruptors

The **Internet** is a massive network that connects computers all over the world and allows them to communicate with one another. Computers connected via the Internet can send and receive information including text, graphics, voice, video, and software. Originally the Internet was essentially an emergency military communications system operated by the U.S. Department of Defense Advanced Research Project Agency (DARPA), which called the network ARPANET. No one foresaw the dramatic impact it would have on both business and

personal communications. In time, all U.S. universities that had defense-related funding installed ARPANET computers, forming the first official Internet network. As users began to notice the value of electronic communications, the purpose of the network started shifting from a military pipeline to a communications tool for scientists.

Millions of corporate, educational, and research networks now connect billions of computer systems and users in more than 200 countries. Internet users are expected to top the 2 billion mark, about one-third of the world's population.⁵

Although the Internet was an excellent communication tool for scientists and government officials, it was technically challenging for everyday people to operate. This changed with the inventions of the World Wide Web and web browsers. The **World Wide Web (WWW)** provides access to Internet information through documents including text, graphics, audio, and video files that use a special formatting language called HTML. **Hypertext markup language (HTML)** links documents, allowing users to move from one to another simply by clicking on a hot spot or link. **Web browsers**, such as Internet Explorer or Mozilla's Firefox, allow users to access the WWW. **Hypertext transport protocol (HTTP)** is the Internet protocol web browsers use to request and display web pages using universal resource locators. A **universal resource locator (URL)** is the address of a file or resource on the web such as www.apple.com. A domain name identifies a URL address and in the previous example apple.com is the domain name. URLs use domain names to identify particular websites. **Domain name hosting (web hosting)** is a service that allows the owner of a domain name to maintain a simple website and provide email capacity. An **applet** is a program that runs within another application such as a website.

Notice that the Internet and the World Wide Web are not synonymous. The WWW is just one part of the Internet, and its primary use is to correlate and disseminate information.

The Internet includes the WWW and also other forms of communication systems such as email. Figure 3.3 lists the reasons for the massive growth of the WWW.⁶

Web 1.0: The Catalyst for Ebusiness

As people began learning about the WWW and the Internet, they understood that it enabled a company to communicate with anyone, anywhere, at anytime, creating a new way to participate in business. The competitive advantages for first movers would be enormous, thus spurring the beginning of the Web 1.0 Internet boom.

▼ **FIGURE 3.2** Companies That Capitalized on Disruptive Technologies

Company	Disruptive Technology
Apple	iPod, iPhone, iPad
Charles Schwab	Online brokerage
Hewlett-Packard	Microprocessor-based computers, ink-jet printers
IBM	Minicomputers; personal computers
Intel	Low-end microprocessors
Intuit	QuickBooks software; TurboTax software; Quicken software
Microsoft	Internet-based computing; operating system software; SQL and Access database software
Oracle	Database software
Quantum	3.5-inch disks
Sony	Transistor-based consumer electronics

▼ **FIGURE 3.3** Reasons for Growth of the World Wide Web

The microcomputer revolution made it possible for an average person to own a computer.

Advancements in networking hardware, software, and media made it possible for business computers to be connected to larger networks at a minimal cost.

Browser software such as Microsoft's Internet Explorer and Netscape Navigator gave computer users an easy-to-use graphical interface to find, download, and display web pages.

The speed, convenience, and low cost of email have made it an incredibly popular tool for business and personal communications.

Basic web pages are easy to create and extremely flexible.

Web 1.0 (or Business 1.0) is a term to refer to the World Wide Web during its first few years of operation between 1991 and 2003. **Ecommerce** is the buying and selling of goods and services over the Internet. Ecommerce refers only to online transactions. **Ebusiness** includes ecommerce along with all activities related to internal and external business operations such as servicing customer accounts, collaborating with partners, and exchanging real-time information. During Web 1.0, entrepreneurs began creating the first forms of ebusiness.

Ebusiness opened up a new marketplace for any company willing to move its business operations online. A **paradigm shift** occurs when a new radical form of business enters the market that reshapes the way companies and organizations behave. Ebusiness created a paradigm shift, transforming entire industries and changing enterprisewide business processes that fundamentally rewrote traditional business rules. Deciding not to make the shift to ebusiness proved fatal for many companies (see Figure 3.4 for an overview of industries revamped by the disruption of ebusiness.)⁷

▼ **FIGURE 3.4** Ebusiness Disruption of Traditional Industries

Industry	Business Changes Due to Technology
Auto	AutoTrader.com is the world's largest used-car marketplace, listing millions of cars from both private owners and dealers. AutoTrader.com actually helps to increase used-car dealer's business as it drives millions of qualified leads (potential used-car buyers) to participating automotive dealers and private sellers.
Publishing	With the Internet, anyone can publish online content. Traditionally, publishers screened many authors and manuscripts and selected those that had the best chances of succeeding. Lulu.com turned this model around by providing self-publishing along with print-on-demand capabilities.
Education and Training	Continuing medical education is costly, and just keeping up-to-date with advances often requires taking training courses and traveling to conferences. Now continuing education in many fields is moving online, and by 2016 over 50 percent of doctors will be building their skills through online learning. Companies such as Cisco save millions by moving training to the Internet.
Entertainment	The music industry was hit hard by ebusiness, and online music traders such as iTunes average billions of annual downloads. Unable to compete with online music, the majority of record stores closed. The next big entertainment industry to feel the effects of ebusiness will be the multibillion-dollar movie business. Video rental stores are closing their doors as they fail to compete with online streaming and home rental delivery companies such as Netflix.
Financial Services	Nearly every public efinance company makes money, with online mortgage service Lending Tree leading the pack. Processing online mortgage applications is over 50 percent cheaper for customers.
Retail	Forrester Research predicts ebusiness retail sales will grow at a 10 percent annual growth rate through 2014. It forecasts U.S. online retail sales will be nearly \$250 billion, up from \$155 billion in 2009. Online retail sales were recently up 11 percent, compared to 2.5 percent for all retail sales.
Travel	Travel site Expedia.com is now the biggest leisure-travel agency, with higher profit margins than even American Express. The majority of travel agencies closed as a direct result of ebusiness.

Due Diligence //:

Excuse Me, but You Are Sitting on My Domain Name⁸

Did you know that you can make a living naming things? Eli Altman has been naming things since he was six years old and has named more than 400 companies and brands while working for A Hundred Monkeys, a branding consulting company. Altman, a veteran in the naming business, recently started to notice an unfamiliar trend in the industry: nonsensical names. English grammar rules are very precise and dictate that an *e* or an *o* usually precedes an *r*. How were these new companies' names such as Flickr, Socializr, Zoomr, Rowdii, Yuuguu, and Ooooc even possible? The answer: the Internet!

With the rise of the Internet, traditional names made of words such as Apple, Harley, and The Gap are gone with the wind. If you are thinking they are not cool enough for business today, you are wrong. The real reason for the crazy business



names has to do with “domain squatting” or “cyber squatting,” the practice of buying up a domain in order to profit from a trademarked name. For example, if you wanted to start a business called Drink, chances are a domain squatter has already purchased drink.com and is just waiting for you to pay big bucks to buy the domain name. Recently the domain sex.com was bought for \$8 and sold for \$3 million. Domain squatting is big business. Too bad it is illegal and prohibited under the 1999 Anticybersquatting Consumer Protection Act, as well as a set of international guidelines called the Uniform Domain-Name Dispute-Resolution Policy. Disputes are usually mediated by the National Arbitration Forum or the U.N.’s World Intellectual Property Organization.

The Internet is a disruptive technology. When the Internet started taking the business world by storm, there were many unforeseen pitfalls, such as domain squatting. Do you agree or disagree that domain squatting should be illegal? Would you consider the individual who purchased the domain sex.com to be an entrepreneur or a crook? If you were starting a business and someone was squatting on your domain, what course of action would you take?

ADVANTAGES OF EBUSINESS L03.2

Both individuals and organizations have embraced ebusiness to enhance productivity, maximize convenience, and improve communications. Companies today need to deploy a comprehensive ebusiness strategy, and business students need to understand its advantages, outlined in Figure 3.5. Let’s look at each.

L03.2 Describe ebusiness and its associated advantages.

Expanding Global Reach

Easy access to real-time information is a primary benefit of ebusiness. **Information richness** refers to the depth and breadth of details contained in a piece of textual, graphic, audio, or video information. **Information reach** measures the number of people a firm can communicate with all over the world. Buyers need information richness to make informed purchases, and sellers need information reach to properly market and differentiate themselves from the competition.

Ebusinesses operate 24 hours a day, 7 days a week. This availability directly reduces transaction costs, since consumers no longer have to spend a lot of time researching purchases or traveling great distances to make them. The faster delivery cycle for online sales helps strengthen customer relationships, improving customer satisfaction and ultimately sales.

A firm’s website can be the focal point of a cost-effective communications and marketing strategy. Promoting products online allows the company to precisely target its customers

FIGURE 3.5 Ebusiness Advantages



whether they are local or around the globe. A physical location is restricted by size and limited to those customers who can get there, while an online store has a global marketplace with customers and information seekers already waiting in line.

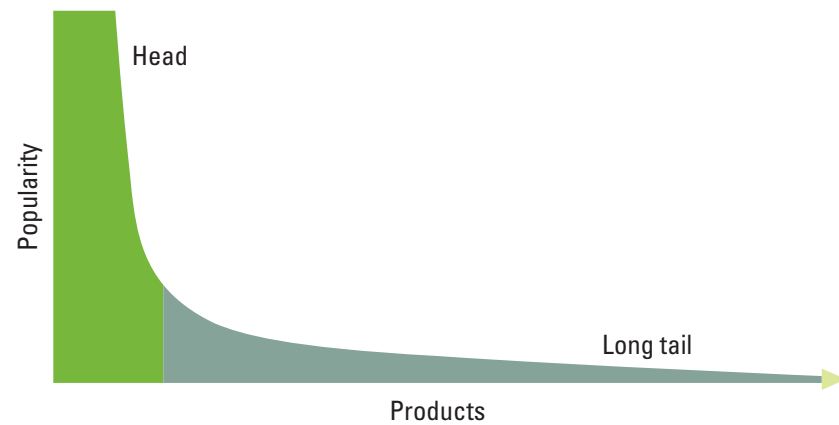
Opening New Markets

Ebusiness is perfect for increasing niche-product sales. **Mass customization** is the ability of an organization to tailor its products or services to the customers' specifications. For example, customers can order M&M's in special colors or with customized sayings such as "Marry Me." **Personalization** occurs when a company knows enough about a customer's likes and dislikes that it can fashion offers more likely to appeal to that person, say by tailoring its website to individuals or groups based on profile information, demographics, or prior transactions. Amazon uses personalization to create a unique portal for each of its customers.

Chris Anderson, editor-in-chief of *Wired* magazine, describes niche-market ebusiness strategies as capturing the **long tail**, referring to the tail of a typical sales curve. This strategy demonstrates how niche products can have viable and profitable business models when selling via ebusiness. In traditional sales models, a store is limited by shelf space when selecting products to sell. For this reason, store owners typically purchase products that will be wanted or needed by masses, and the store is stocked with broad products as there is not room on the shelf for niche products that only a few customers might purchase. Ebusinesses such as Amazon and eBay eliminated the shelf-space dilemma and were able to offer infinite products.

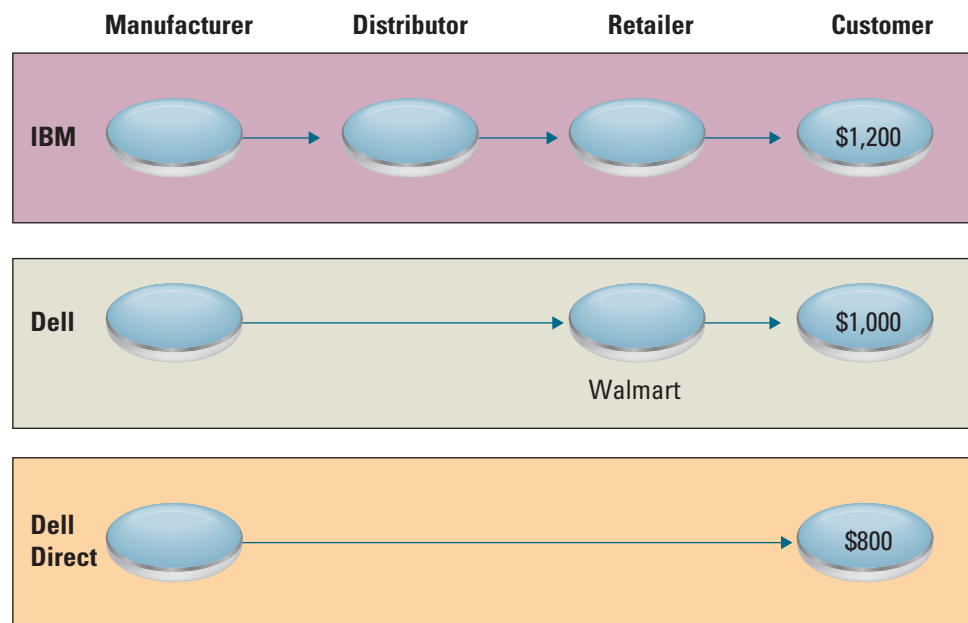
Netflix offers an excellent example of the long tail. Let's assume that an average Blockbuster store maintains 3,000 movies in its inventory, whereas Netflix, without physical shelf limitations, can maintain 100,000 movies in its inventory. Looking at sales data, the majority of Blockbuster's revenue comes from new releases that are rented daily, whereas older selections are rented only a few times a month and don't repay the cost of keeping them in stock. Thus Blockbuster's sales tail ends at title 3,000 (see Figure 3.6) However, Netflix, with no physical limitations, can extend its tail beyond 100,000 (and with streaming video perhaps 200,000). By extending its tail, Netflix increases sales, even if a title is rented only a few times.⁹

FIGURE 3.6 The Long Tail



Intermediaries are agents, software, or businesses that provide a trading infrastructure to bring buyers and sellers together. The introduction of ebusiness brought about **disintermediation**, which occurs when a business sells directly to the customer online and cuts out the intermediary (see Figure 3.7). This business strategy lets the company shorten the order process and add value with reduced costs or a more responsive and efficient service. The disintermediation of the travel agent occurred as people began to book their own vacations online, often at a cheaper rate. At Lulu.com, anyone can publish and sell print-on-demand books, online music, and custom calendars, making the publisher obsolete.¹⁰

FIGURE 3.7 Business Value of Disintermediation



The more intermediaries that are cut from the distribution chain, the lower the product price. When Dell decided to sell its PCs through Walmart many were surprised, because Dell's direct-to-customer sales model was the competitive advantage that had kept Dell the market leader for years.

In *reintermediation*, steps are *added* to the value chain as new players find ways to add value to the business process. Levi Strauss originally thought it was a good business strategy to limit all online sales to its own website. A few years later, the company realized it could gain a far larger market share by allowing all retailers to sell its products directly to customers. As ebusiness matures it has become evident that to serve certain markets in volume, some reintermediation may be desirable. *Cybermediation* refers to the creation of new kinds of intermediaries that simply could not have existed before the advent of ebusiness, including comparison-shopping sites such as Kelkoo and bank account aggregation services such as Citibank.¹¹

Reducing Costs

Operational benefits of ebusiness include business processes that require less time and human effort or can be eliminated. Compare the cost of sending out 100 direct mailings (paper, postage, labor) to the cost of a bulk email campaign. Think about the cost of renting a physical location and operating phone lines versus the cost of maintaining an online site. Switching to an ebusiness model can eliminate many traditional costs associated with communicating by substituting systems, such as Live Help, that let customers chat live with support or sales staff.

Online air travel reservations cost less than those booked over the telephone. Online ordering also offers the possibility of merging a sales order system with order fulfillment and delivery so customers can check the progress of their orders at all times. Ebusinesses can also inexpensively attract new customers with innovative marketing and retain present customers with improved service and support.¹²

One of the most exciting benefits of ebusiness is its low start-up costs. Today, anyone can start an ebusiness with just a website and a great product or service. Even a dog-walking operation can benefit from being an ebusiness.

Improving Operations

Ebusiness has had some of its biggest impacts on customer service. Communication is often faster, more available, and more effective, encouraging customers to learn more about the product. Customers can often help themselves, using the content richness only a website can provide, and they can both shop and pay online without having to leave the house. Companies can also use email, special messages, and private password access to special areas for top customers.

Improving Effectiveness

Just putting up a simple website does not create an ebusiness. Ebusiness websites must create buzz, be innovative, add value, and provide useful information. In short, they must build a sense of community and collaboration.

MIS measures of efficiency, such as the amount of traffic on a site, don't tell the whole story. They do not necessarily indicate large sales volumes, for instance. Many websites with lots of traffic have minimal sales. The best way to measure ebusiness success is to use *effectiveness* MIS metrics, such as the revenue generated by web traffic, number of new customers acquired by web traffic, and reductions in customer service calls resulting from web traffic.

Interactivity measures advertising effectiveness by counting visitor interactions with the target ad, including time spent viewing the ad, number of pages viewed, and number of repeat visits to the advertisement. Interactivity measures are a giant step forward for advertisers, since traditional advertising methods—newspapers, magazines, radio, and television—provide few ways to track effectiveness. Figure 3.8 displays the ebusiness marketing initiatives allowing companies to expand their reach while measuring effectiveness.¹³

The ultimate outcome of any advertisement is a purchase. Organizations use metrics to tie revenue amounts and number of new customers created directly back to the websites or banner ads. Through *clickstream data* they can observe the exact pattern of a consumer's navigation through a site. Figure 3.9 displays different types of clickstream metrics, and Figure 3.10 provides definitions of common metrics based on clickstream data. To interpret such data properly, managers try to benchmark against other companies. For instance, consumers seem to visit their preferred websites regularly, even checking back multiple times during a given session.¹⁴

THE FOUR EBUSINESS MODELS L03.3

A *business model* is a plan that details how a company creates, delivers, and generates revenues. Some models are quite simple: A company produces a good or service and sells it to customers. If the company is successful, sales exceed costs and the company generates a profit. Other models are less straightforward, and sometimes it's not immediately clear who makes money and how much. Radio and network television are broadcast free to anyone with a receiver, for instance; advertisers pay the costs of programming.

The majority of online business activities consist of the exchange of products and services either between businesses or between businesses and consumers. An *ebusiness model* is a plan that details how a company creates, delivers, and generates revenues on the Internet. *Dot-com* was the original term for a company operating on the Internet. Ebusiness models fall into one of the four categories: (1) business-to-business, (2) business-to-consumer, (3) consumer-to-business, and (4) consumer-to-consumer (see Figure 3.11).

L03.3 Compare the four ebusiness models.

▼ **FIGURE 3.8** Marketing Received Tremendous Benefits from Ebusiness

Marketing via Ebusiness
<p>An associate (affiliate) program allows a business to generate commissions or referral fees when a customer visiting its website clicks on a link to another merchant's website. For example, if a customer to a company website clicks on a banner ad to another vendor's website, the company will receive a referral fee or commission when the customer performs the desired action, typically making a purchase or completing a form.</p> <p>A banner ad is a box running across a website that advertises the products and services of another business, usually another ebusiness. The banner generally contains a link to the advertiser's website. Advertisers can track how often customers click on a banner ad resulting in a click-through to their website. Often the cost of the banner ad depends on the number of customers who click on the banner ad. Web-based advertising services can track the number of times users click the banner, generating statistics that enable advertisers to judge whether the advertising fees are worth paying. Banner ads are like living, breathing classified ads. Tracking the number of banner ad clicks is an excellent way to understand the effectiveness of the ad on the website.</p> <p>A click-through is a count of the number of people who visit one site and click on an advertisement that takes them to the site of the advertiser. Tracking effectiveness based on click-throughs guarantees exposure to target ads; however, it does not guarantee that the visitor liked the ad, spent any substantial time viewing the ad, or was satisfied with the information contained in the ad.</p> <p>A cookie is a small file deposited on a hard drive by a website containing information about customers and their browsing activities. Cookies allow websites to record the comings and goings of customers, usually without their knowledge or consent.</p> <p>A pop-up ad is a small web page containing an advertisement that appears outside of the current website loaded in the browser. A pop-under ad is a form of a pop-up ad that users do not see until they close the current web browser screen.</p> <p>Viral marketing is a technique that induces websites or users to pass on a marketing message to other websites or users, creating exponential growth in the message's visibility and effect. One example of successful viral marketing is Hotmail, which promotes its service and its own advertisers' messages in every user's email notes. Viral marketing encourages users of a product or service supplied by an ebusiness to encourage friends to join. Viral marketing is a word-of-mouth type advertising program.</p>

▼ **FIGURE 3.9** Clickstream Data Metrics

Types of Clickstream Data Metrics
The number of page views (i.e., the number of times a particular page has been presented to a visitor).
The pattern of websites visited, including most frequent exit page and most frequent prior website.
Length of stay on the website.
Dates and times of visits.
Number of registrations filled out per 100 visitors.
Number of abandoned registrations.
Demographics of registered visitors.
Number of customers with shopping carts.
Number of abandoned shopping carts.

▼ **FIGURE 3.10** Website Metrics

METRICS MEASURING WEBSITE SUCCESS	
Website Visit Metrics	
Stickiness (visit duration time)	The length of time a visitor spends on a website.
Raw visit depth (total web pages exposure per session)	The total number of pages a visitor is exposed to during a single visit to a website.
Visit depth (total unique web pages exposure per session)	The total number of unique pages a visitor is exposed to during a single visit to a website.
Website Visitor Metrics	
Unidentified visitor	A visitor is an individual who visits a website. An "unidentified visitor" means that no information about that visitor is available.
Unique visitor	A unique visitor is one who can be recognized and counted only once within a given period of time.
Identified visitor	An ID is available that allows a user to be tracked across multiple visits to a website.
Website Hit Metrics	
Hits	When visitors reach a website, their computer sends a request to the site's computer server to begin displaying pages. Each element of a requested page is recorded by the website's server log file as a "hit."

▼ **FIGURE 3.11** Ebusiness Models

Ebusiness Term	Definition		Business	Consumer
Business-to-business (B2B)	Applies to businesses buying from and selling to each other over the Internet.		B2B	B2C
Business-to-consumer (B2C)	Applies to any business that sells its products or services to consumers over the Internet.	Business		
Consumer-to-business (C2B)	Applies to any consumer that sells a product or service to a business over the Internet.		C2B	C2C
Consumer-to-consumer (C2C)	Applies to sites primarily offering goods and services to assist consumers interacting with each other over the Internet.	Consumer		

Business-to-Business (B2B)

Business-to-business (B2B) applies to businesses buying from and selling to each other over the Internet. Examples include medical billing service, software sales and licensing, and virtual assistant businesses. B2B relationships represent 80 percent of all online business and are more complex with greater security needs than the other types. B2B examples include Oracle and SAP.

Electronic marketplaces, or emarketplaces, are interactive business communities providing a central market where multiple buyers and sellers can engage in ebusiness activities. By tightening and automating the relationship between the two parties, they create structures for conducting commercial exchange, consolidating supply chains, and creating new sales channels.

Business-to-Consumer (B2C)

Business-to-consumer (B2C) applies to any business that sells its products or services directly to consumers online.

Carfax offers car buyers detailed histories of used vehicles for a fee. An **eshop**, sometimes referred to as an **estore** or **etailer**, is an online version of a retail store where customers can shop at any hour. It can be an extension of an existing store such as The Gap or operate only online such as Amazon.com. There are three ways to operate as a B2C: brick-and-mortar, click-and-mortar, and pure play (see Figure 3.12).

Consumer-to-Business (C2B)

Consumer-to-business (C2B) applies to any consumer who sells a product or service to a business on the Internet. One example is customers of Priceline.com, who set their own prices for items such as airline tickets or hotel rooms and wait for a seller to decide whether to supply them. The demand for C2B ebusiness will increase over the next few years due to customers' desire for greater convenience and lower prices.

▼ **FIGURE 3.12** Forms of Business-to-Consumer Operations



Brick-and-Mortar Business
A business that operates in a physical store without an Internet presence.
Example: T.J. Maxx



Click-and-Mortar Business
A business that operates in a physical store and on the Internet.
Example: Barnes & Noble



Pure-Play (Virtual) Business
A business that operates on the Internet only without a physical store.
Example: Google

Consumer-to-Consumer (C2C)

Consumer-to-consumer (C2C) applies to customers offering goods and services to each other on the Internet. A good example of a C2C is an auction where buyers and sellers solicit consecutive bids from each other and prices are determined dynamically. Craigslist and eBay are two examples of successful C2C websites, linking like-minded buyers with sellers. Other types of online auctions include forward auctions where sellers market to many buyers and the highest bid wins, and reverse auctions where buyers select goods and services from the seller with the lowest bid.

▼ **FIGURE 3.13** Ebusiness Forms

Form	Description	Examples
Content providers	Generate revenues by providing digital content such as news, music, photos, or videos.	Netflix.com, iTunes.com, CNN.com
Infomediaries	Provide specialized information on behalf of producers of goods and services and their potential customers	Edmunds.com, BizRate.com, Bloomberg.com, Zillow.com
Online marketplaces	Bring together buyers and sellers of products and services.	Amazon.com, eBay.com, Priceline.com
Portals	Operate central website for users to access specialized content and other services.	Google.com, Yahoo.com, MSN.com
Service providers	Provide services such as photo sharing, video sharing, online backup and storage.	Flickr.com, Mapquest.com, YouTube.com
Transaction brokers	Process online sales transactions.	Etrade.com, Charlesschwab.com, Fidelity.com

Ebusiness Forms and Revenue-Generating Strategies

As more and more companies began jumping on the ebusiness bandwagon new forms of ebusiness began to emerge (see Figure 3.13). Many of the new forms of ebusiness went to market without clear strategies on how they were going to generate revenue. Google is an excellent example of an ebusiness that did not figure out a way to generate profits until many years after its launch.¹⁵

Google's primary line of business is its search engine; however, the company does not generate revenue from people using its site to search the Internet. It generates revenue from the marketers and advertisers that pay to place their ads on the site. About 200 million times each day, people from all over the world access Google to perform searches. AdWords, a part of the Google site, allows advertisers to bid on common search terms. The advertisers simply enter in the keywords they want to bid on and the maximum amounts they want to pay per click per day. Google

then determines a price and a search ranking for those keywords based on how much other advertisers are willing to pay for the same terms. Pricing for keywords can range from 5 cents to \$10 a click. Paid search is the ultimate in targeted advertising because consumers type in exactly what they want. A general search term such as *tropical vacation* costs less than a more specific term such as *Hawaiian vacation*. Whoever bids the most for a term appears in a sponsored advertisement link either at the top or along the side of the search-results page.¹⁶

A **search engine** is website software that finds other pages based on keyword matching similar to Google. **Search engine ranking** evaluates variables that search engines use to determine where a URL appears on the list of search results. **Search engine optimization (SEO)** combines art along with science to determine how to make URLs more attractive to search engines resulting in higher search engine ranking (see Figure 3.14). The better the SEO, the higher the ranking for a website in the list of search engine results. SEO is critical because most people only view the first few pages of a search result. After that a person is more inclined to begin a new search

Living the DREAM

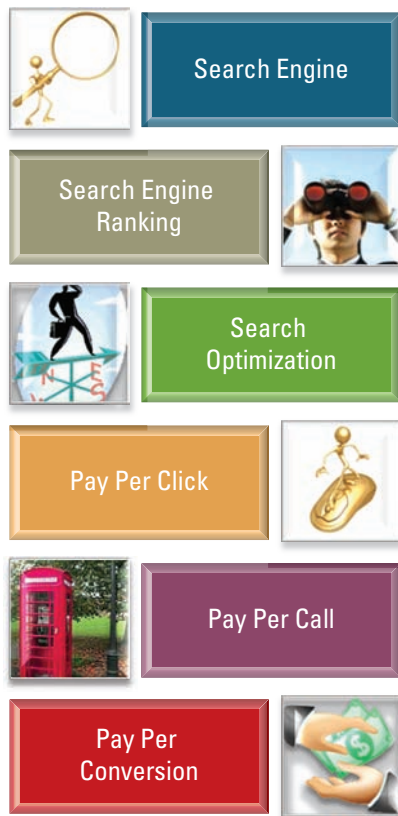
Crazy over Access¹⁷

You are all familiar with Craigslist, but are you familiar with the Craigslist Foundation

that takes on social causes? www.craigslistfoundation.org hosts information ranging from nonprofit boot camps to nonprofit support resources. Craigslist Foundation views its role as a community catalyst, providing and highlighting events and online resources that provide nonprofit leaders with the knowledge, resources, and visibility they need to find success for their organizations.

Review the Craigslist Foundation website and the nonprofit boot camp online. Create a new online social program using the resources found on the site.

▼ **FIGURE 3.14** Different Forms of Searching



than review pages and pages of search results. Websites can generate revenue through:

- **Pay-per-click:** generates revenue each time a user clicks on a link to a retailer's website.
- **Pay-per-call:** generates revenue each time a user clicks on a link that takes the user directly to an online agent waiting for a call.
- **Pay-per-conversion:** generates revenue each time a website visitor is converted to a customer.

Ebusinesses must have a revenue model, or a model for making money. For instance, will it accept advertising, or sell subscriptions or licensing rights? Figure 3.15 lists the different benefits and challenges of various ebusiness revenue models.¹⁸

EBUSINESS TOOLS FOR CONNECTING AND COMMUNICATING L03.4

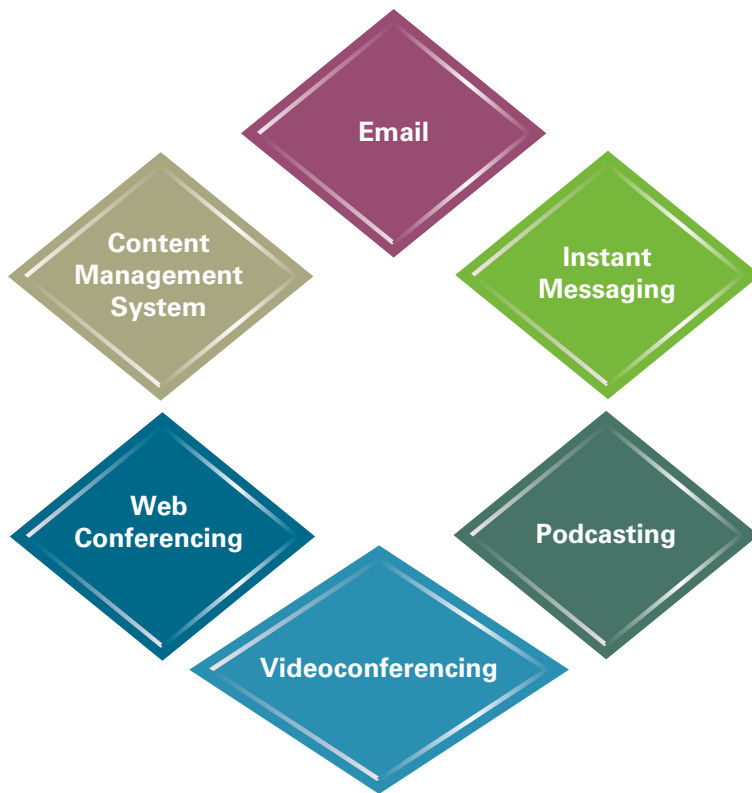
As firms began to move online, more MIS tools were created to support ebusiness processes and requirements. The tools supporting and driving ebusiness are highlighted in Figure 3.16 and covered below in detail.

L03.4 Describe the six ebusiness tools for connecting and communicating.

▼ **FIGURE 3.15** Ebusiness Revenue Models

Ebusiness Revenue Model	Benefits	Challenges
Advertising fees	<ul style="list-style-type: none"> ■ Well-targeted advertisements can be perceived as value-added content by trading participants. ■ Easy to implement. 	<ul style="list-style-type: none"> ■ Limited revenue potential. ■ Overdone or poorly targeted advertisements can be disturbing elements on the website.
License fees	<ul style="list-style-type: none"> ■ Creates incentives to do many transactions. ■ Customization and back-end integration lead to lock-in of participants. 	<ul style="list-style-type: none"> ■ Up-front fee is a barrier to entry for participants. ■ Price differentiation is complicated.
Subscription fees	<ul style="list-style-type: none"> ■ Creates incentives to do transactions. ■ Price can be differentiated. ■ Possibility to build additional revenue from new user groups. 	<ul style="list-style-type: none"> ■ Fixed fee is a barrier to entry for participants.
Transaction fees	<ul style="list-style-type: none"> ■ Can be directly tied to savings (both process and price savings). ■ Important revenue source when high level of liquidity (transaction volume) is reached. 	<ul style="list-style-type: none"> ■ If process savings are not completely visible, use of the system is discouraged (incentive to move transactions offline). ■ Transaction fees likely to decrease with time.
Value-added services fees	<ul style="list-style-type: none"> ■ Service offering can be differentiated. ■ Price can be differentiated. ■ Possibility to build additional revenue from established and new user groups (third parties). 	<ul style="list-style-type: none"> ■ Cumbersome process for customers to continually evaluate new services.

▼ **FIGURE 3.16** Ebusiness Tools



Email

Email, short for electronic mail, is the exchange of digital messages over the Internet. No longer do business professionals have to wait for the mail to receive important documents as email single-handedly increased the speed of business by allowing the transfer of documents with the same speed as the telephone. Its chief business advantage is the ability to inform and communicate with many people simultaneously, immediately, and with ease. There are no time or place constraints, and users can check, send, and view emails whenever they require.

An **Internet service provider (ISP)** is a company that provides access to the Internet for a monthly fee. Major ISPs in the United States include AOL, AT&T, Comcast, Earthlink, and Netzero, as well as thousands of local ISPs including regional telephone companies.

Instant Messaging

Real-time communication occurs when a system updates information at the same rate it receives it. Email was a great advancement over traditional communication methods such as the U.S. mail, but it did not operate in real time. **Instant messaging (IMing)** is a service that enables instant or real-time communication between people. Businesses immediately saw what they could do:

- Answer simple questions quickly and easily.
- Resolve questions or problems immediately.

- Transmit messages as fast as naturally flowing conversation.
- Easily hold simultaneous IM sessions with multiple people.
- Eliminate long-distance phone charges.
- Quickly identifying which employees are at their computers.

Podcasting

Podcasting converts an audio broadcast to a digital music player. Podcasts can increase marketing reach and build customer loyalty. Companies use podcasts as marketing communication channels discussing everything from corporate strategies to detailed product overviews. The senior executive team can share weekly or monthly podcasts featuring important issues or expert briefings on new technical or marketing developments.

Videoconferencing

A **videoconference** allows people at two or more locations to interact via two-way video and audio transmissions simultaneously as well as share documents, data, computer displays, and whiteboards. Point-to-point videoconferences connect two people, and multipoint conferences connect more than two people at multiple locations.

Videoconferences can increase productivity because users participate without leaving their offices. It can improve communication and relationships, because participants see each other's facial expressions and body language, both important aspects of communication that are lost with a basic telephone call or email. It also reduces travel expenses, a big win for firms facing economic challenges. Of course, nothing can replace meeting someone face-to-face and shaking hands, but videoconferencing offers a viable and cost-effective alternative.

Web Conferencing

Web conferencing, or a **webinar**, blends videoconferencing with document sharing and allows the user to deliver a presentation over the web to a group of geographically dispersed participants. Regardless of the type of hardware or software the attendees are running, every participant can see what is on anyone else's screen. Schools use web conferencing tools such as Illuminate Live to deliver lectures to students, and businesses use tools such as WebEx to demonstrate products. Web conferencing is not quite like being there, but professionals can accomplish more sitting at their desks than in an airport waiting to make travel connections.

Content Management Systems

In the fourth century BC Aristotle catalogued the natural world according to a systematic organization, and the ancient library at Alexandria was reportedly organized by subject,

connecting like information with like. Today **content management systems (CMS)** help companies manage the creation, storage, editing, and publication of their website content. CMSs are user-friendly; most include web-based publishing, search, navigation, and indexing to organize information; and they let users with little or no technical expertise make website changes.

A search is typically carried out by entering a keyword or phrase (query) into a text field and clicking a button or a hyperlink. Navigation facilitates movement from one web page to another. Content management systems play a crucial role in getting site visitors to view more than just the home page. If navigation choices are unclear, visitors may hit the “Back” button on their first (and final) visit to a website. One rule of thumb to remember is that each time a user has to click to find search information, there is a 50 percent chance the user will leave the website instead. A key principle of good website design, therefore, is to keep the number of clicks to a minimum.

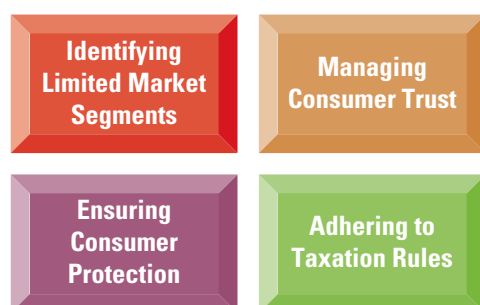
Taxonomy is the scientific classification of organisms into groups based on similarities of structure or origin. Taxonomies are also used for indexing the content on the website into categories and subcategories of topics. For example, car is a subtype of vehicle. Every car is a vehicle, but not every vehicle is a car; some vehicles are vans, buses, and trucks. Taxonomy terms are arranged so that narrower/more specific/“child” terms fall under broader/more generic/“parent” terms. **Information architecture** is the set of ideas about how all information in a given context should be organized. Many companies hire information architects to create their website taxonomies. A well-planned taxonomy ensures search and navigation are easy and user-friendly. If the taxonomy is confusing, the site will soon fail.

THE CHALLENGES OF EBUSINESS L03.5

Although the benefits of ebusiness are enticing, developing, deploying, and managing ebusiness systems is not always easy. Figure 3.17 lists the challenges facing ebusiness.¹⁹

L03.5 Identify the four challenges associated with ebusiness.

FIGURE 3.17 Challenges Facing Ebusiness



Identifying Limited Market Segments

The main challenge of ebusiness is the lack of growth in some sectors due to product or service limitations. The online food sector has not grown in sales, in part because food products are perishable and consumers prefer to buy them at the supermarket as needed. Other sectors with limited ebusiness appeal include fragile or consumable goods and highly sensitive or confidential businesses such as government agencies.

Managing Consumer Trust

Trust in the ebusiness exchange deserves special attention. The physical separation of buyer and seller, the physical separation of buyer and merchandise, and customer perceptions about the risk of doing business online provide unique challenges. Internet marketers must develop a trustworthy relationship to make that initial sale and generate customer loyalty. A few ways to build trust when working online include being accessible and available to communicate in person with your customers; using customers’ testimonials that link to your client website or to provide their contact information; accepting legitimate forms of payment such as credit cards.

Ensuring Consumer Protection

An organization that wants to dominate with superior customer service as a competitive advantage must not only serve but also protect its customers, guarding them against unsolicited goods and communication, illegal or harmful goods, insufficient information about goods and suppliers, invasion of privacy and misuse of personal information, and online fraud. System security, however, must not make ebusiness websites inflexible or difficult to use.

Adhering to Taxation Rules

Many believe that U.S. tax policy should provide a level playing field for traditional retail businesses, mail-order companies, and online merchants. Yet the Internet marketplace remains mostly free of traditional forms of sales tax, partly because ecommerce law is vaguely defined and differs from state to state. For now, companies that operate online must obey a patchwork of rules about which customers are subject to sales tax on their purchases and which are not.

SECTION 3.2

Web 2.0: Business 2.0

LEARNING OUTCOMES

- L03.6** Explain Web 2.0, and identify its four characteristics.
- L03.7** Explain how Business 2.0 is helping communities network and collaborate.
- L03.8** Describe the three Business 2.0 tools for collaborating.
- L03.9** Explain the three challenges associated with Business 2.0.
- L03.10** Describe Web 3.0 and the next generation of online business.

WEB 2.0: ADVANTAGES OF BUSINESS 2.0 L03.6

In the mid-1990s the stock market reached an all-time high as companies took advantage of ebusiness and Web 1.0, and many believed the Internet was the wave of the future. When new online businesses began failing to meet earning expectations, however, the bubble burst. Some then believed the ebusiness boom was over, but they could not have been more wrong.

Web 2.0 (or **Business 2.0**) is the next generation of Internet use—a more mature, distinctive communications platform characterized by new qualities such as collaboration, sharing, and free. Business 2.0 encourages user participation and the formation of communities that contribute to the content. In Business 2.0, technical skills are no longer required to use and publish information to the World Wide Web, eliminating entry barriers for online business.

Traditional companies tended to view technology as a tool required to perform a process or activity, and employees picked up information by walking through the office or hanging out around the water cooler. Business 2.0 technologies provide a virtual environment that, for many new employees, is just as vibrant and important as the physical environment. Figure 3.18 highlights the common characteristics of Web 2.0.²⁰

L03.6 Explain Web 2.0, and identify its four characteristics.

Content Sharing Through Open Sourcing

An **open system** consists of nonproprietary hardware and software based on publicly known standards that allows third parties to create add-on products to plug into or interoperate with the system. Thousands of hardware devices and software applications created and sold by third-party vendors interoperate with computers, such as iPods, drawing software, and mice.

Source code contains instructions written by a programmer specifying the actions to be performed by computer software. **Open source** refers to any software whose source code is made available free (not on a fee or licensing basis as in ebusiness) for any third party to review and modify. Business 2.0 is capitalizing on open source software. Mozilla, for example, offers its Firefox web browser and Thunderbird email software free. Mozilla believes the Internet is a public resource that must remain open and accessible to all; it continuously develops free products by bringing together thousands of dedicated volunteers from around the world. Mozilla's Firefox now holds over 20 percent of the browser market and is quickly becoming a threat to Microsoft's Internet Explorer. How do open source software companies generate



show me the MONEY

Analyzing Websites

Wishes is a nonprofit company that specializes in selling items online that are donated by celebrities, such as clothing, jewelry, purses, and many other forms of memorabilia. The profits from Wishes are used to support initiatives at children's hospitals around the country. There have been many volunteers helping at Wishes, which has been great for the company but not so great for the company's online presence. The company now has four different websites created by four different volunteers, and the only information you can find on the success of the four websites follows:

Website	Classic	Contemporary	New Age	Traditional
Traffic analysis	5,000 hits/day	200 hits/day	10,000 hits/day	1,000 hits/day
Stickiness (average)	20 min.	1 hr.	20 min.	50 min.
Number of abandoned shopping carts	400/day	0/day	5,000/day	200/day
Number of unique visitors	2,000/day	100/day	8,000/day	200/day
Number of identified visitors	3,000/day	100/day	2,000/day	800/day
Average revenue per sale	\$1,000	\$1,000	\$50	\$1,300

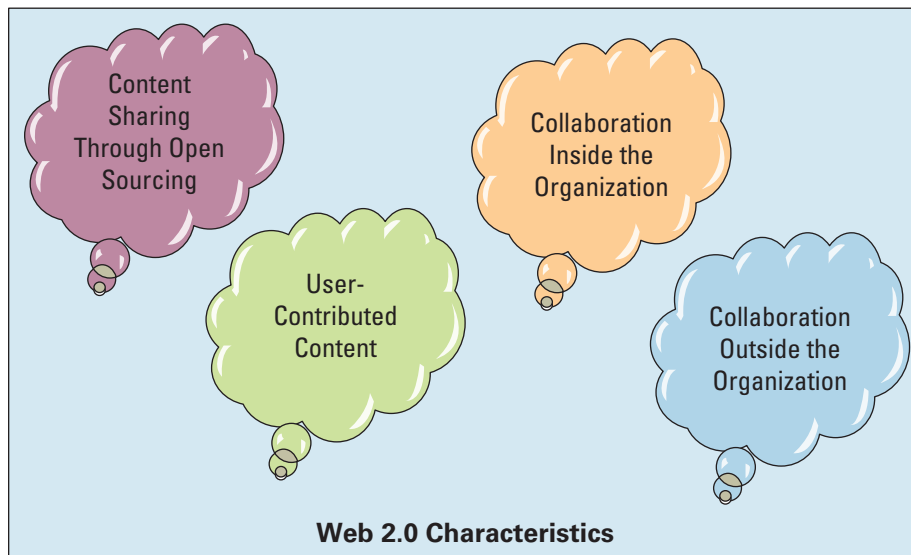
You have been hired to run Wishes, and your first action item is to choose one website to continue running the business. The other three websites will be removed. Analyze the metrics described in the table and determine which site you want to use as you move the business forward.

revenues? Many people are still awaiting an answer to this very important question.²¹

User-Contributed Content

Ebusiness was characterized by a few companies or users posting content for the masses. Business 2.0 is characterized by the masses posting content for the masses. **User-contributed content** (or **user-generated content**) is created and updated by many users for many users. Websites such as Flickr,

▼ **FIGURE 3.18** Four Characteristics of Web 2.0



Wikipedia, and YouTube, for example, move control of online media from the hands of leaders to the hands of users. Netflix and Amazon both use user-generated content to drive their recommendation tools, and websites such as Yelp use customer reviews to express opinions on products and services. Companies are embracing user-generated content to help with everything from marketing to product development and quality assurance.

One of the most popular forms of user-generated content is a **reputation system**, where buyers post feedback on sellers. EBay buyers voluntarily comment on the quality of service, their satisfaction with the item traded, and promptness of shipping. Sellers comment about prompt payment from buyers or respond to comments left by the buyer. Companies ranging from Amazon to restaurants are using reputation systems to improve quality and enhance customer satisfaction.

Collaboration Inside the Organization

A **collaboration system** is a set of tools that supports the work of teams or groups by facilitating the sharing and flow of information. Business 2.0's collaborative mind-set generates more information faster from a wider audience. **Collective intelligence** is collaborating and tapping into the core knowledge of all employees, partners, and customers. Knowledge can be a real competitive advantage for an organization. The most common form of collective intelligence found inside the organization is **knowledge management (KM)**, which involves capturing, classifying, evaluating, retrieving, and sharing information assets in a way that provides context for effective decisions and actions. The primary objective of knowledge management is to be sure that a company's knowledge of facts, sources of information, and solutions are readily available to all employees whenever it is needed. A **knowledge**

management system (KMS) supports the capturing, organization, and dissemination of knowledge (i.e., know-how) throughout an organization. KMS can distribute an organization's knowledge base by interconnecting people and digitally gathering their expertise.

A great example of a knowledge worker is a golf caddie. Golf caddies give advice such as, "The rain makes the third hole play 10 yards shorter." If a golf caddie is good and gives accurate advice it can lead to big tips. Collaborating with other golf caddies can provide bigger tips for all. How can knowledge management make this happen? Caddies could be rewarded for sharing course knowledge by receiving prizes for sharing knowledge. The course manager could compile all of the tips and publish a course notebook for distribution to all caddies.

The goal of a knowledge management system is that everyone wins. Here the caddies make bigger tips and golfers improve their play by benefiting from the collaborative experiences of the caddies, and the course owners win as business increases.

KM has assumed greater urgency in American business over the past few years as millions of baby boomers prepare to retire. When they punch out for the last time, the knowledge they gleaned about their jobs, companies, and industries during their long careers will walk out with them—unless companies take measures to retain their insights.

Explicit and Tacit Knowledge Not all information is valuable. Individuals must determine what information qualifies as intellectual and knowledge-based assets. In general, intellectual and knowledge-based assets fall into one of two categories: explicit or tacit. As a rule, **explicit knowledge** consists of anything that can be documented, archived, and codified, often with the help of MIS. Examples of explicit knowledge are assets such as patents, trademarks, business plans, marketing research, and customer lists. **Tacit knowledge** is the knowledge contained in people's heads. The challenge inherent in tacit knowledge is figuring out how to recognize, generate, share, and manage knowledge that resides in people's heads. While information technology in the form of email, instant messaging, and related technologies can help facilitate the dissemination of tacit knowledge, identifying it in the first place can be a major obstacle.

Collaboration Outside the Organization

The most common form of collective intelligence found outside the organization is **crowdsourcing**, which refers to the

My Not To-Do List

Social Not Working²²

There are a number of stories of new employees who spend so much time on social networking sites that they don't have time to perform their jobs, resulting in their termination.

Here are a few tips on what you should *not* be doing with your social networking sites.

- Do not work on your personal social networking sites while at work.
- Be careful not to accidentally reply to multiple recipients on messages.
- Be sure to post a professional profile picture. Do not use shots of your children or your pets or your fraternity.
- Be careful to set up all of the security and privacy features in your profile.
- Do not ever address politics or religion.
- Never continually post something every 5 minutes or spam friends with messages. Every time you make a move on Facebook, other people know, and you don't want to become annoying.

Facebook, LinkedIn, Twitter, and MySpace seem to be everywhere, and it is not only new employees who are finding the sites difficult to use in a work environment. The question companies are asking is how to tap the social networking trend as a business opportunity, rather than simply a way to connect. Face-to-face networking enables employees to share ideas, information, and resources, but can social networking achieve the same goals? Sites such as LinkedIn are helpful in connecting with people you want to meet for professional purposes, and Twitter and Facebook can be helpful when trying to notify a group of people about a product promotion or event, but how can a business integrate social networking into its core processes and add real value to the bottom line?



wisdom of the crowd. The idea that collective intelligence is greater than the sum of its individual parts has been around for a long time (see Figure 3.19). With Business 2.0 the ability

▼ **FIGURE 3.19** Crowdsourcing: The Crowd Is Smarter Than the Individual



to efficiently tap into its power is emerging. For many years organizations believed that good ideas came from the top. CEOs collaborated only with the heads of sales and marketing, the quality assurance expert, or the road warrior salesman. The organization chart governed who should work with whom and how far up the chain of command a suggestion or idea would travel. With Business 2.0 this belief is being challenged, as firms capitalize on crowdsourcing by opening up a task or problem to a wider group to find better or cheaper results from outside the box.

With Business 2.0, people can be continuously connected, a driving force behind collaboration. Traditional e-business communications were limited to face-to-face conversations and one-way technologies that used **asynchronous communications**, or communication such as email in which the message and the response do not occur at the same time. Business 2.0 brought **synchronous communication**, or communications that occur at the same time such as IM or chat. Ask a group of college students when they last spoke to their parents. For most the answer is less than hour ago, as opposed to the traditional response of a few days ago. In business too, continuous connections are now expected in today's collaborative world.

NETWORKING COMMUNITIES WITH BUSINESS 2.0

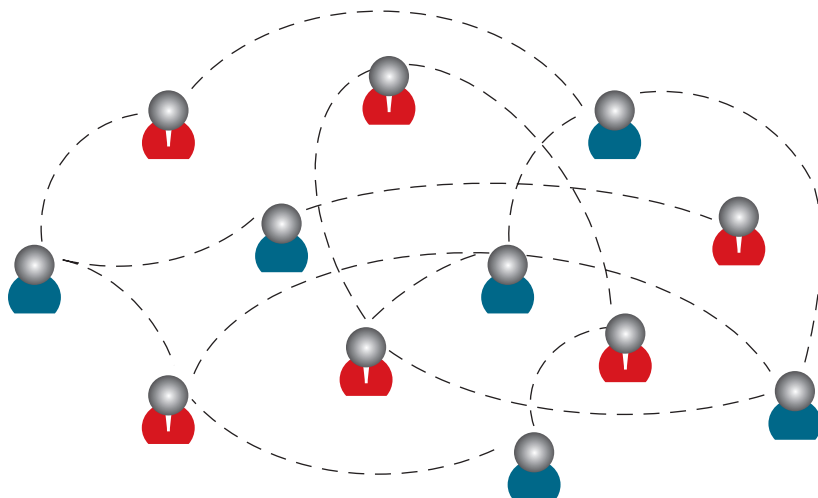
L03.7

Social media refers to websites that rely on user participation and user-contributed content, such as Facebook, YouTube, and Digg. A **social network** is an application that connects people by matching profile information. Providing individuals with the ability to network is by far one of the greatest advantages of Business 2.0. **Social networking** is the practice of expanding your business and/or social contacts by constructing a personal network (see Figure 3.20). Social networking sites provide two basic functions. The first is the ability to create and maintain a profile that serves as an online identity within the environment. The second is the ability to create connections between other people within the network. **Social networking analysis (SNA)** maps group contacts (personal and professional) identifying who knows each other and who works together. In a company it can provide a vision of how employees work together. It can also identify key experts with specific knowledge such as how to solve a complicated programming problem or launch a new product.

Business 2.0 simplifies access to information and improves the ability to share it. Instead of spending \$1,000 and two days at a conference to meet professional peers, business people can now use social networks such as LinkedIn to meet new contacts for recruiting, prospecting, and identifying experts on a topic. With executive members from all the *Fortune* 500 companies, LinkedIn has become one of the more useful recruiting tools on the web.

Social networking sites can be especially useful to employers trying to find job candidates with unique or highly specialized skill sets that may be harder to locate in larger communities. Many employers also search social networking sites to find

▼ **FIGURE 3.20** Social Network Example²⁴



“dirt” and character references for potential employees. Keep in mind that what you post on the Internet stays on the Internet.²³

L03.7 Explain how Business 2.0 is helping communities network and collaborate.

Social Tagging

Tags are specific keywords or phrases incorporated into website content for means of classification or taxonomy. An item can have one or more tags associated with it, to allow for multiple browseable paths through the items, and tags can be changed with minimal effort (see Figure 3.21). **Social tagging** describes the collaborative activity of marking shared online content with keywords or tags as a way to organize it for future navigation, filtering, or search. The entire user community is invited to tag, and thus essentially defines, the content. Flickr allows users to upload images and tag them with appropriate keywords. After enough people have done so, the resulting tag collection will identify images correctly and without bias.

Folksonomy is similar to taxonomy except that crowdsourcing determines the tags or keyword-based classification system. Using the collective power of a community to identify and classify content significantly lowers content categorization costs, because there is no complicated nomenclature to learn. Users

▼ **FIGURE 3.21** Social Tagging Occurs When Many Individuals Categorize Content



Due Diligence //:

Welcome to the Anti-Social Networking Revolution²⁵

Have you ever received a friend application on Facebook and thought you are not a friend but an enemyface? Well one smart individual has created an application that allows you to tell your enemies as well as your friends what you really think about them: introducing the Enemybook. The Enemybook allows users to add enemies as well as friends on Facebook, and you can describe in detail exactly how you know the person and why you truly hate them. Another great feature, instead of poking them, you can flip them the bird.

Have you noticed that individuals have a great deal of power when it comes to the Internet? That wimpy kid who used to be picked on in high school can now Enemybook those bullies all over Facebook. The same power has been given to the consumer. Prior to the Internet, if a customer was angry, they could write a letter or make a phone call, but their individual power was relatively weak. Now, they can create a website or upload a video to YouTube bashing a product or service, and their efforts can be viewed by millions and millions of people. The power has shifted to the hands of the consumer.

What issues can your company anticipate from consumers? What power does one unhappy consumer have and what methods could they use to communicate their issues? What role does viral marketing play in the unhappy consumer scenario? What can a company do to protect itself from the wrath of an unhappy blogger or tweeter?



simply create and apply tags as they wish. For example, while cell phone manufacturers often refer to their products as mobile devices, the folksonomy could include mobile phone, wireless phone, smartphone, iPhone, BlackBerry, and so on. All these keywords, if searched, should take a user to the same site. Folksonomies reveal what people truly call things (see Figure 3.22). They have been a point of discussion on the web because the whole point of having a website is for your customers to find it. The majority of websites are found through search terms that match the content.²⁶

A **website bookmark** is a locally stored URL or the address of a file or Internet page saved as a shortcut. **Social bookmarking** allows users to share, organize, search, and manage bookmarks. Del.icio.us, a website dedicated to social bookmarking, provides users with a place to store, categorize, annotate, and share favorites. StumbleUpon is another popular social bookmarking website that allows users to locate interesting websites based on their favorite subjects. The more you use the service, the more the system “learns” about your interests and the better it can show you websites that interest you. StumbleUpon represents a

▼ **FIGURE 3.22**
Folksonomy Example: The User-Generated Names for Cellular Phones



new social networking model in which content finds the users instead of the other way around. StumbleUpon is all about the users and the content they enjoy.²⁷

BUSINESS 2.0 TOOLS FOR COLLABORATING L03.8

Social networking and collaborating are leading businesses in new directions, and Figure 3.23 provides an overview of the tools that harness the “power of the people,” allowing users to share ideas, discuss business problems, and collaborate on solutions.

L03.8 Describe the three Business 2.0 tools for collaborating.

Blogs

A **blog**, or **Web log**, is an online journal that allows users to post their own comments, graphics, and video. Unlike traditional HTML web pages, blog websites let writers communicate—and reader’s respond—on a regular basis through a simple yet customizable interface that does not require any programming.

From a business perspective, blogs are no different from marketing channels such as video, print, audio, or presentations. They all deliver results of varying kinds. Consider Sun Microsystems’s Jonathan Schwartz and GM’s Bob Lutz, who use their blogs for marketing, sharing ideas, gathering feedback, press response, and image shaping. Starbucks has developed a blog called My Starbucks Idea, allowing customers to share ideas, tell Starbucks what they think of other people’s ideas, and join discussions. Blogs are an ideal mechanism for many businesses since they can focus on topic areas more easily than traditional

media, with no limits on page size, word count, or publication deadline.²⁸

Microblogs *Microblogging* is the practice of sending brief posts (140 to 200 characters) to a personal blog, either publicly or to a private group of subscribers who can read the posts as IMs or as text messages. The main advantage of microblogging is that posts can be submitted by a variety of means, such as instant messaging, email, or the web. By far the most popular microblogging tool is Twitter, which allows users to send microblog entries called tweets to anyone who has registered to “follow” them. Senders can restrict delivery to people they want to follow them or, by default, allow open access. Microblogging is covered in detail in Chapter 7.²⁹

Real Simple Syndication (RSS) *Real Simple Syndication (RSS)* is a web format used to publish frequently updated works, such as blogs, news headlines, audio, and video, in a standardized format. An RSS document or feed includes full or summarized text, plus other information such as publication date and authorship. News websites, blogs, and podcasts use RSS, constantly feeding news to consumers instead of having them search for it. In addition to facilitating syndication, RSS allows a website’s frequent readers to track updates on the site.

Wikis

A **wiki** (the word is Hawaiian for quick) is a type of collaborative web page that allows users to add, remove, and change content, which can be easily organized and reorganized as required. While blogs have largely drawn on the creative and personal goals of individual authors, wikis are based on open collaboration with any and everybody. Wikipedia, the open encyclopedia that launched in 2001, has become one of the 10 most popular web destinations, reaching an estimated 217 million unique visitors a month.³⁰

A wiki user can generally alter the original content of any article, while the blog user can only add information in the form of comments. Large wikis, such as Wikipedia, protect the quality and accuracy of their information by assigning users roles such as reader, editor, administrator, patroller, policy maker, subject matter expert, content maintainer, software developer, and system operator. Access to some important or sensitive Wikipedia material is limited to users in these authorized roles.³¹

The **network effect** describes how products in a network increase in value to users as the number of users increases. The more users and content managers on a wiki, the greater the network

FIGURE 3.23 Business 2.0 Communication and Collaboration Tools

BLOG	WIKI	MASHUP
<ul style="list-style-type: none"> • An online journal that allows users to post their own comments, graphics, and videos • Popular business examples include Sweet Leaf Tea, Stoneyfield Farm, Nuts about Southwest, Disney Parks 	<ul style="list-style-type: none"> • Collaborative website that allows users to add, remove, and change content • Popular business examples include Wikipedia, National Institute of Health, Intelopedia, LexisNexis, Wiki for Higher Education 	<ul style="list-style-type: none"> • Content from more than one source to create a new product or service • Examples include Zillow, Infopedia, Trendsmap, SongDNA, ThisWeKnow

fyi

Don't You Just Love Mötley Crüe?³²

Eurpac, an employee-owned company, performs business in several industries from tobacco to video games. Mike Skinner, CIO of Eurpac, asks the following questions every single time he meets with his staff:

- Where are resources invested?
- What progress have we made?
- What's our next goal?

By cultivating a corporate culture focused on innovation and technology, his creative team developed the platform for Artist2Market, a website where performing artists can record, develop, and distribute their work, a unique alternative to the traditional music label infrastructure. The goal of Artist2Market is to give the artist complete creative control of their project, maximize their



exposure to their fan base, and minimize their project costs. The idea for Artist2Market was developed out of a chance meeting between Mötley Crüe drummer Tommy Lee and A2M General Manager Paul Ignasinski. Tommy Lee was interested in producing and distributing

a record without having to rely on a major label. Ignasinski went back to Michigan and developed the concept that is now known as Artist2Market.

Artist2Market is an excellent example of how you can use the power of the Internet to fundamentally change entire industries. Takelessons.com is also highly profitable as it connects music students with

instructors. One of the easiest ways to create a new online business is to create a mashup. Using your knowledge of mashups, create a new website that would have the ability to completely transform an industry such as Artist2Market did with the recording industry.

effect because more users attract more contributors, whose work attracts more users, and so on. For example, Wikipedia becomes more valuable to users as the number of its contributors increases.

Wikis internal to firms can be vital tools for collecting and disseminating knowledge throughout an organization, across geographic distances, and between functional business areas. For example, what U.S. employees call a “sale” may be called “an order booked” in the United Kingdom, an “order scheduled” in Germany, and an “order produced” in France. The corporate wiki can answer any questions about a business process or definition. Companies are also using wikis for documentation, reporting, project management, online dictionaries, and discussion groups. Of course, the more employees who use the corporate wiki, the greater the network effect and valued added for the company.

Mashups

A *mashup* is a website or web application that uses content from more than one source to create a completely new product or service. The term is typically used in the context of music; putting Jay-Z lyrics over a Radiohead song makes something old new. The web version of a mashup allows users to mix map data, photos, video, news feeds, blog entries, and so on to create content with a new purpose. Content used in mashups is typically sourced from an *application programming interface*

(*API*), which is a set of routines, protocols, and tools for building software applications. A programmer then puts these building blocks together.

Most operating environments, such as Microsoft Windows, provide an API so that programmers can write applications consistent with them. Many people experimenting with mashups are using Microsoft, Google, eBay, Amazon, Flickr, and Yahoo APIs, leading to the creation of mashup editors. *Mashup editors* are WYSIWYG, or What You See Is What You Get tools. They provide a visual interface to build a mashup, often allowing the user to drag and drop data points into a web application.

Whoever thought technology could help sell bananas? Dole Organic now places three-digit farm codes on each banana and creates a mashup using Google Earth and its banana database. Socially and environmentally conscious buyers can plug the numbers into Dole's website and look at a bio of the farm where the bananas were raised. The site tells the story of the farm and its surrounding community, lists its organic certifications, posts some photos, and offers a link to satellite images of the farm in Google Earth. Customers can personally monitor the production and treatment of their fruit from the tree to the grocer. The process assures customers that their bananas have been raised to proper organic standards on an environmentally friendly, holistically minded plantation.³³

THE CHALLENGES OF BUSINESS 2.0 L03.9

As much as Business 2.0 has positively changed the global landscape of business, a few challenges remain in open source software, user-contributed content systems, and collaboration systems, all highlighted in Figure 3.24. We'll briefly describe each one.

L03.9 Explain the three challenges associated with Business 2.0.

Technology Dependence

Many people today expect to be continuously connected, and their dependence on technology glues them to their web connections for everything from web conferencing for a university class or work project to making plans with friends for dinner. If a connection is down, how will they function? How long can people go without checking email, text messaging, or listening to free music on Pandora or watching on-demand television? As society becomes more technology-dependent, outages hold the potential to cause ever-greater havoc for people, businesses, and educational institutions.

Information Vandalism

Open source and sharing are both major advantages of Business 2.0, and ironically they are major challenges as well. Allowing anyone to edit anything opens the door for individuals to purposely damage, destroy, or vandalize website content. One of the most famous examples of wiki vandalism occurred when a false biography entry read that John Seigenthaler Sr. was assistant to Attorney General Robert F. Kennedy in the early 1960s and was thought to have been directly involved in the assassinations of both Kennedy and his brother, President John F. Kennedy. Seigenthaler did work as an assistant to Robert Kennedy, but he was never involved in the assassinations. Wiki vandalism is a hot issue and for this reason wiki software can now store all versions of a web page, tracking updates and changes and ensuring the site can be restored to its original form if the site is vandalized. It can also color-code the background ensuring the

user understands which areas have been validated and which areas have not. The real trick to wiki software is to determine which statements are true and which are false, a huge issue when considering how easy and frequently wiki software is updated and changed.³⁴

Violations of Copyright and Plagiarism

Online collaboration makes plagiarism as easy as clicking a mouse. Unfortunately a great deal of copyrighted material tends to find its ways to blogs and wikis where many times blame cannot be traced to a single person. Clearly stated copyright and plagiarism policies are a must for all corporate blogs and wikis. These topics are discussed in detail in Chapter 4.

WEB 3.0: DEFINING THE NEXT GENERATION OF ONLINE BUSINESS OPPORTUNITIES L03.10

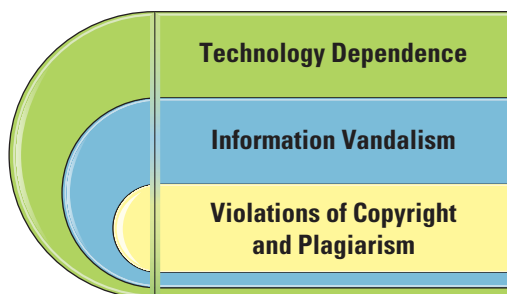
While Web 1.0 refers to static text-based information websites and Web 2.0 is about user-contributed content, Web 3.0 is based on “intelligent” web applications using natural language processing, machine-based learning and reasoning, and intelligent applications. Web 3.0 is the next step in the evolution of the Internet and web applications. Business leaders who explore its opportunities will be the first to market with competitive advantages.

Web 3.0 offers a way for people to describe information such that computers can start to understand the relationships among concepts and topics. To demonstrate the power of Web 3.0, let's look at a few sample relationships, such as Adam Sandler is a comedian, Lady Gaga is a singer, and Hannah is friends with Sophie. These are all examples of descriptions that can be added to web pages allowing computers to learn about relationships while displaying the information to humans. With this kind of information in place, there will be a far richer interaction between people and machines with Web 3.0.

Applying this type of advanced relationship knowledge to a company can create new opportunities. After all, businesses run on information. Where Web 2.0 brings people closer together with information using machines, Web 3.0 brings *machines* closer together using *information*. These new relationships unite people, machines, and information so a business can be smarter, quicker, more agile, and more successful.

One goal of Web 3.0 is to tailor online searches and requests specifically to users' preferences and needs. For example,

FIGURE 3.24 Challenges of Business 2.0



BUSTED

Connectivity Break-Down

When you are considering connectivity services for your business, you need to take continuous access and connectivity seriously. What if one of your employees is about to close a huge multimillion-dollar deal and loses the Internet connection, jeopardizing the deal?

What if a disgruntled employee decides to post your business's collective intelligence on an open-source blog or wiki? What if your patient scheduling software crashes and you have no idea which patients are scheduled to which operating rooms with which doctors? These are far worse scenarios

than a teenage boy not gaining access to his email or Facebook page. What management and technical challenges do you foresee as people and businesses become increasingly dependent on connectivity? What can managers do to meet these challenges and prevent problems?

instead of making multiple searches, the user might type a complex sentence or two in a Web 3.0 browser, such as "I want to see a funny movie and then eat at a good Mexican restaurant. What are my options?" The Web 3.0 browser will analyze the request, search the web for all possible answers, organize the results, and present them to the user.

Tim Berners-Lee, one of the founders of the World Wide Web, has described the *semantic web* as a component of Web 3.0 that describes things in a way that computers can understand. The semantic web is not about links between web pages; rather it describes the relationships between *things* (such as A is a part of B and Y is a member of Z) and the properties of things (size, weight, age, price). If information about music, cars, concert tickets, and so on is stored in a way that describes the information and associated resource files, semantic web applications can collect information from many different sources, combine it, and present it to users in a meaningful way. Although Web 3.0 is still a bit speculative, some topics and features are certain to be included in it, such as:³⁵

- Integration of legacy devices: the ability to use current devices such as iPhones, laptops, and so on, as credit cards, tickets, and reservations tools.

- Intelligent applications: the use of agents, machine learning, and semantic web concepts to complete intelligent tasks for users.
- Open ID: the provision of an online identity that can be easily carried to a variety of devices (cell phones, PCs) allowing for easy authentication across different websites.
- Open technologies: the design of websites and other software so they can be easily integrated and work together.
- A worldwide database: the ability for databases to be distributed and accessed from anywhere.

L03.10 Describe Web 3.0 and the next generation of online business.

Egovernment: The Government Moves Online

Recent business models that have arisen to enable organizations to take advantage of the Internet and create value are within egovernment. **Egovernment** involves the use of strategies and technologies to transform government(s) by improving the delivery of services and enhancing the quality of interaction between the citizen-consumer within all branches of government.

One example of an egovernment portal, FirstGov.gov, the official U.S. gateway to all government information, is the catalyst for a growing electronic government. Its powerful search engine and ever-growing collection of topical and customer-focused links connect users to millions of web pages, from the federal government, to local and tribal governments, to foreign nations around the world. Figure 3.25 highlights specific egovernment models.

Mbusiness: Supporting Anywhere Business

Internet-enabled mobile devices are quickly outnumbering personal computers. **Mobile business** (or *mbusiness*, *mcommerce*) is the

FIGURE 3.25 Extended Ebusiness Models

	Business	Consumer	Government
Business	B2B conisint.com	B2C dell.com	B2G lockheedmartin.com
Consumer	C2B priceline.com	C2C ebay.com	C2G egov.com
Government	G2B export.gov	G2C medicare.gov	G2G disasterhelp.gov

ability to purchase goods and services through a wireless Internet-enabled device. The emerging technology behind mbusiness is a mobile device equipped with a web-ready micro-browser that can perform the following services:

- Mobile entertainment—downloads for music, videos, games, voting, ring tones, as well as text-based messaging services.
- Mobile sales/marketing—advertising, campaigns, discounts, promotions, and coupons.
- Mobile banking—manage accounts, pay bills, receive alerts, and transfer funds.
- Mobile ticketing—purchase tickets for entertainment, transportation, and parking including the ability to automatically feed parking meters.

- Mobile payments—pay for goods and services including in-store purchases, home delivery, vending machines, taxis, gas, and so on.

Organizations face changes more extensive and far reaching in their implications than anything since the modern industrial revolution occurred in the early 1900s. Technology is a primary force driving these changes. Organizations that want to survive must recognize the immense power of technology, carry out required organizational changes in the face of it, and learn to operate in an entirely different way.

GET ONLINE

mhhe.com/BaltzanM3e

for study materials including
quizzes, iPod downloads,
and video

