**Chapter 1**

**Internet Marketing As Part of the Marketing Communications Mix**

**Learning Objectives:**

By the time students complete this chapter they should be able to:

* Briefly describe how the Internet originated and what makes it unique as a communications and transactions medium.
* Describe the implications of Web 2.0 and Web 3.0.
* Discuss the business benefits of using Web 2.0.
* Understand the generic marketing objectives that form the basis for Internet marketing strategies.
* Discuss the Internet marketing channels that can be used for Internet communications and commerce.
* Describe the basic technical infrastructure of the Internet including computing in the cloud.
* Identify some of the sites where up-to-date Internet statistics can be found.
* Explain the advantages of using the Internet for consumers and for businesses of all kinds.
* Identify the strategic and economic drivers of the Internet.
* Suggest some potential best practices in acquiring, communicating with, and retaining customers on the Internet.

**Chapter Perspective**

Students need to understand the evolution of the Internet, which should better prepare them for the fact that the Internet continues to change and will do so for the foreseeable future. Beyond that brief history the first chapter sets the stage for what is going to be covered in the remainder of the text. It does so from the perspective that Internet marketing is no longer just a mainstream communications and transactions medium, it is now an accepted part of the integrated marketing communications mix. In fact, multichannel marketing is so prevalent that there are few single channel marketers. Internet marketing is now a significant and growing part of the marketing activities and budgets of traditional B2C, B2B, nonprofit and governmental marketers. Examples from each marketspace are used throughout the text. Examples from around the globe are woven seamlessly into the text to reinforce the perspective of the Internet as a truly global medium.

Students have a tendency to believe they know about the Internet—after all, they use it every day. Most of them actually know very little about how Internet business works, especially about marketing on the web. This is particularly true of students with a technical background who correctly believe this class may provide an added dimension to their training. They are able to add technical detail to many discussions, but it may be hard to get them to take a customer-oriented perspective.

Students should also recognize Internet marketing as a significant career opportunity. The number of positions continues to grow. There are numerous jobs at the entry level and marketers with five years or more of experience are scarce and highly sought after. The introduction has a description of the Internet Career Builder Exercise that begins generically in Chapter 1 and really gets started in Chapter 4.

**The Evolution of the Internet**

The degree of emphasis placed on the history of the Internet will depend on the instructor’s interests and approach. At a minimum, it is important for students to understand that the Internet is not a recent phenomenon, and that it went through a number of discernable stages over the last fifty-plus years. The infographic on which Figure 1.1 is based is interesting and informative: <http://socialmediagraphics.posterous.com/the-history-of-the-internet>.

If you want more information, the Internet Timeline is hugely informative

<http://www.zakon.org/robert/internet/timeline/#1950s>, with some good graphs at the end, and can be used in the classroom. Another interesting site is Live Internet <http://www.livinginternet.com>, which is an incredibly rich resource for Internet history.

Throughout the text, if you want to provide some historical context, you might find the Internet Archive’s Wayback Machine interesting: <http://www.archive.org/web/web.php>. It is particularly useful if you want to show the evolution of some of the major websites.

The main thing students need to realize is that the Internet was not originally a commercial medium. That helps to explain some of the inherent tensions that still exist in the medium. Current events can often help to illustrate the point. As this is written SOPA has gone away for the moment, but you can expect continuing issues that concern the governance of the Internet itself and the impact it has on particular industries and consumer segments.

It is also good to focus students on the section about the Internet bubble. Visuals like the eToys website [http://wayback.archive.org/web/\*/http://etoys.com](http://wayback.archive.org/web/*/http://etoys.com) or the Pets.com sock puppet are readily available if you want to illustrate the point. Here the key point is economic sustainability, which neither of these sites had in the early days of the Internet. Students should think about the fact that there are successful toy sites now (they understand the virtues of cost control and efficient fulfillment of customer orders) and pet product, which tend to be focused on the higher-margin supplies and medicines. This kind of thinking provides a good foundation for the Chapter 3 discussion of business models.

**The Sabre System**

The Sabre example follows the history section for a particular reason. Just as the Internet predates its current size and scope, Sabre started at almost the dawn of computing, long before the Internet became a commercial venue. They have taken advantage of many new developments in technology, including the Internet, and therefore provide a good role model for other enterprises as they try to keep up with changing markets and technology. The Travelocity gnome is a delightful visual illustration of their multiple brands example.

**Web 2.0 and Web 3.0**

Web 2.0 and 3.0 are not absolutes but they are the best current descriptors of where the web seems to be going at this moment. Tim O’Reilly is considered the guru of Web 2.0. His descriptive characteristics are:

* Services, not packaged software (SaaS) with scalability essential
* Unique data collected on the web with behavioral data key to strategy
* Users as co-developers
* Harness collective intelligence
* Leverage the “Long Tail”
  + Chris Anderson of Wired magazine coined the term in 2004. His website gives an explanation and has a good graphic: <http://www.longtail.com/about.html>.
* Software increasingly device agnostic with mobile apps being a prime example
* “Lightweight” interfaces, development and business models. This is a tech concept probably best left at “user friendly.”

The O’Reilly map in Interactive Exercise 1.1 is interesting, and shows the power of interactivity, but the point is a bit philosophical. The McKinsey interactive presentation of their research on the benefits of what they now call “social technology” makes the interactive point as well as having useful content. It has the benefit of being easier to present: [https://www.mckinseyquarterly.com/wrapper.aspx?ar=2431&story=true&url=http%3a%2f%2fwww.mckinseyquarterly.com%2fBusiness\_and\_Web\_20\_An\_interactive\_feature\_2431%3fpagenum%3d1%23interactive&pgn=buwe09\_exhibit](https://www.mckinseyquarterly.com/wrapper.aspx?ar=2431&story=true&url=http://www.mckinseyquarterly.com/Business_and_Web_20_An_interactive_feature_2431?pagenum=1).

There is no firm answer to what Web 3.0 is going to look like, although the word “semantic” appears in most discussions. The summary of CNN is as straightforward as it gets:

* Real time
* Semantic
* Open communication/data transfer
* Mobile and geolocation

Eric Schmidt has talked frequently about the evolution to Web 3.0 and the YouTube video referenced in the PPT is short enough to use in class and very good: <http://www.youtube.com/watch?v=T0QJmmdw3b0>.

The list of most valuable global brands in Table 1.2 is notable for the presence of some of the Internet superstars like Google and some of the old economy firms who got the Internet early from IBM in B2B to Coke in B2C. All of the brands listed—old economy or new—use the Internet effectively and have been working on it for at least a decade. That’s the main point of the listing.

**The Internet Marketing Paradigm**

This is an attempt to present the core content of the text in visual form. Like all such attempts it probably falls somewhat short, but it does help students get the overall picture.

The objectives are:

* Customer acquisition
* Customer conversion
* Customer retention
* Customer value growth

The marketing inputs are:

* Internet business models
* Interactive channels
  + Websites, search, email, mobile (search added and wireless changed to mobile in 3rd edition)
* Social media channels (new to the 3rd edition)
  + Social networks
  + Social platforms
* Offline channels
  + Mass media, events, sponsorships, PR
* Social and regulatory issues

The marketing actions are:

* Advertising and promotion
  + Direct response
  + Brand development
* Ecommerce
* Customer service and support

Notice that ecommerce is treated as one of the actions (tools), not as a separate discipline. That helps to position the coverage for some students who see ecommerce as the chief issue, not as part of the Internet marketing mix.

**The Internet Infrastructure Stack**

Students need to understand the essential technical elements of the Internet, and “stack” is terminology that is often used because each level must be supported by technology in the lower levels. They need to understand these terms at the definitional level, although few of us understand the detail about how they actually work.

“The cloud” has been added to the stack in the third edition. It is important for students to understand the potential cost savings and the ability to preserve security of data. If you wish to get into the potential for “greener” computing, there is plenty of discussion on that. The links the Apple Cloud and the Best Buy Cloud in Interactive Exercise 1.2 are interesting but the link to the Microsoft material is the most important. Microsoft has set out to educate the business and consuming public about the virtues of cloud computing and its ads are instructive. Videos/product tours on sites like salesforce.com make the business benefits even more clear.

The infographic referenced in the text [http://www.cloudtweaks.com/2010/11/cloud-hypermarket-on-the-future-of-cloud-computing-and-microsofts-cloud-power-campaign](http://www.cloudtweaks.com/2010/11/cloud-hypermarket-on-the-future-of-cloud-computing-and-microsofts-cloud-power-campaign/) is informative. At the least, students need to realize that they also participate in the cloud through webmail, upload sites, various Internet applications and others.

**A Profile of the Internet and Its Users**

The section that covers statistics on Internet usage around the world has been shorted and moved to the first chapter. Students need to realize that these data are old before a book is printed. Figures 1.3 through 1.8 and Table 1.3 come from sources that are regularly updated (some through eMarketer). The basic sources are given on the notes pane of each slide for ease of updating.

The data in the Behaviors section is less consistently updated, but the websites where these data were obtained may be helpful. Search is also helpful. However, it is reasonable to use these data as illustrative only—the type of data available on the Internet, but best collected by the brand for its own use instead of depending on generic data that is publicly available.

It is pretty easy to find updates on online advertising spending and its proportion of marketing budgets by searching, but a number of good sources are given on Slide 26.

**Strategic Drivers of the Internet Economy**

This section is now summarized in Table 1.4. It is important, but the key issues should no longer be a surprise to most students. It is worth point out that nothing in this list says that making a profit is unimportant.

**Internet Marketing Best Practices for Strategic Drivers**

The chapter ends with a brief case history of the nonprofit Charity:water. This site is a creature of the Internet—the rich media age, to be more specific—and it’s an excellent site to which to go live. It is also a good one, if you react in time, to subscribe to their email. Unless you donate you will not get the ultimate in personalization, but you will see their focus on charitable outcomes and their virtuoso use of rich media to make their points. The website illustrates most of what they do so well. While this is not a complete list of Internet marketing best practices, what Charity:water does is a good beginning. What this case history illustrates includes:

* Content (information) is fresh, relevant, and posted without regard to the location of the contributor; they may be anywhere in the world that an Internet connection is available. It makes use of powerful web tools from video to blogging. Note that the tools are chosen for interactivity as well as the power of communication.
* The online equivalent of word of mouth is used to acquire new donors, often at little or no cost to the organization. We will talk about referrals and sharing in chapters to come.
* People from many walks of life, in many parts of the world, have been drawn into its orbit and remain there because of a compelling mission and consistent, meaningful communications. This site is a good example of the global reach of the Internet.
* It creates a constantly expanding network of people all over the world who are reached in a cost-effective fashion. Retention is key to their efforts, but they continue their efforts to acquire new supporters.
* Donors are given choice in the way in which even small contributions are used and are informed about how they benefit people who need clean water. To me, this is one of the most impressive things they do.
* In spite of the number of people and their geographical distribution, it remains a highly personal endeavor in which each person is made to feel a valued contributor. This suggests the quality of their communications program.
* It has a business model that encourages contributions. The donations go directly and fully to identified projects. The donor is kept informed about the progress of the specific well to which he has contributed, creating an unusual level of transparency in the organization’s operations. This blew me away when I first saw it several years ago. Others have adopted this business model including the Clinton Foundation. The ability to follow this model is entirely dependent on a charismatic leader who can raise administrative funds, which are actually the hardest of all dollars to raise. I know Charity:water takes a lot of this in kind; office space for example.
* The organization continues successful fund-raising and expansion of its efforts in terms of geographical areas, suggesting a business model that is also scalable both online and offline.

As the text says, ending with this case history also emphasizes one of the main themes of the text: the importance of integrating both online and offline marketing activities into a seamless marketing operation. That is the only path to success.

**Discussion Questions**

**1. The origins of the Internet are unusual in the history of commercial media. What makes them unusual and what qualities does that impart to the medium?**

The Internet began as a national defense initiative and government ownership of the network prevented commercial activity until 1991. Another interesting aspect of Internet history is the degree to which academic researchers across the country, and soon the world, became involved in various developments. That may have been responsible for the early “anything goes” culture of the Internet.

The introduction of the first graphical browser was a watershed event, making the Internet accessible to the average computer user. The word “democratization” is often used to describe widespread adoption of the Internet. That brings, among other things, pressure for more control over content that some find offensive. That is one of the continuing tensions of the Internet.

If you want your students to understand the environment of the early Internet, it survives in the *Cluetrain Manifesto.* The manifesto and the first chapter of the book are available at <http://www.cluetrain.com>.

**2. What do you believe are reasons for the highly visible failures of some of the early Internet enterprises? Do you see any parallels in more recent years? Are there any currently popular Internet sites that you think may not be sustainable?**

Some of it was the time; not as many people were on the Internet and few had broadband connections, so ecommerce had 2 strikes going in. Costs were a major issue; the sock puppet was great fun but didn’t warrant the cost of a Super Bowl ad. I think this and more boils down to unrealistic expectations. Internet businesses like Amazon that had a basically sound model and were willing to grow along with the market have prospered.

There are businesses in all spaces that fail. They were bad ideas in the first place, they were badly managed, or just plain bad luck or timing. Are there businesses that failed just because they were started on the Internet? If you can think of one, let me know.

On the other hand, there have been plenty of problems. Will Groupon make it in the face of competition, merchant displeasure and consumer coupon fatigue? Netflix had a business model that just didn’t work; subscription revenues that didn’t scale with costs. The more movies users rented, the more money they lost. Then they didn’t handle the transition to streaming well, either from a business or a PR perspective.

**3. Discuss the characteristics of Web 2.0 and give an example of each.**

* Services, not packaged software (SaaS) with scalability essential—income tax preparation on the web instead of buying software
* Unique data collected on the web with behavioral data key to strategy—get them to remember “every mouseclick.” They may bring up Facebook as well they should.
* Users as co-developers. Ask how many use reviews when getting ready to purchase. Most probably do. Ask how many write reviews. Few—why?
* Harness collective intelligence. You can create your own t shirt or other fabric item at Zazzle. If they like it enough, they may add it to their product line.
* Leverage the “Long Tail.” If you think about it, this is the advice to ignore the “heavy half” and look for a niche segment you can serve profitably.
* Software increasingly device agnostic with mobile apps being a prime example. Would you do an app today without making it available for both Apple and Android systems?
* “Lightweight” interfaces, development and business models. This is a tech concept probably best left at “user friendly.” Actually, apps and other APIs are good examples here. I point to the Amazon book icon on my personal website. If I can download the API and sell books on my website, so can anyone!

**4. What are the broad outlines of Web 3.0?**

* Real time—example music downloads, real-time web metrics
* Semantic—look at all the stuff on a search results page these days. A lot of it is social, some may be semantic.
* Open communication/data transfer—although much data is proprietary, Facebook makes data available in order to sell advertising. The Pew Foundation offers data sets free to other researchers.
* Mobile and geolocation. It is always interesting to ask a class how many people have a smart device within reach. Most of them do. Are they thinking about the fact that the device knows where they are? They know it, but they may not be concerned.

**5. “The most powerful global brands are not enterprises that were founded in the Internet era.” True or False?**

Table 1.2 says it is a mix. Who are the top Internet brands and who are the top “old economy” brands and how have they achieved top status is a more interesting question. I would argue that, in both cases, it is understanding the Internet and integrating all their activities, online and offline. That may have been harder for the old economy brands, but it is the secret of success for both.

**6. The Internet marketing paradigm includes both marketing inputs and marketing actions. Discuss the major components of both the inputs and the actions.**

You can use this question to reinforce the importance of integrating online with offline marketing effort, since the inputs include both interactive and offline channels. Students may not have much understanding of business models at this point. They should be sensitive to social and regulatory issues from the beginning of the course. There has typically not been a lot of regulatory activity, but the discussion of “Net Neutrality” is an exception.

The marketing actions are characterized as advertising and promotion, ecommerce and service and support. You could ask students to give examples of each.

They should also recognize the importance of the three generic objectives of any marketing activity, including but not limited to Internet marketing—acquisition, retention, and value growth. Some of you may wish to add conversion to that list of generic objectives.

**7. What is the *Internet infrastructure stack*? What is the relevance of this technological concept to marketers? Why does it now have a cloud at the top?**

The infrastructure stack is Figure 1.4. One purpose of including this small section of technical information and terminology is to emphasize to students that they must know enough to deal with technical experts if they are to be successful Internet marketers. They don’t need to know how to develop or run the technology. They do have to understand what it can do and what it should be doing for their marketing program. If they don’t, they will find most IT departments to be reluctant to exert themselves to meet the requirements of marketing.

The cloud—SaaS and more—is a development of great importance in current Internet business. The opportunities to cut costs and still provide better services to both the business itself and to its customers is very appealing. There are numerous examples of where it is working well. Salesforce.com is a B2B example. The Apple and Best Buy clouds provide service to consumers. We will discuss other cloud services providers including Amazon in chapters to come.

It is worrisome to many CIOs to outsource mission-critical operations, but there are opportunities to use the cloud for non-mission-critical applications or at least do not have stringent time requirements. The salesforce.com internal communications network is an example of the former and CRM might be example of an application that is mission critical but with somewhat flexible time requirements in some executions.

**8. Discuss the role the Internet plays in the lives of consumers and businesses? Has it changed the lives of consumers in any meaningful way? Has it changed the way businesses operate in any significant fashion? Can you give examples of the impact of the Internet in either B2C, B2B, or nonprofit markets?**

This question can lead to extended and interesting discussion. Press students for specific examples of what they do (and don’t do) on the Internet. Get them to think about generational differences in usage. Depending on what students bring up, you can discuss subjects like why some consumers use online bill paying and why some do not, why people are willing to buy some things (travel) online but many are unwilling to buy things like clothing and food. This is a good time to get them thinking about segments.

Travel is one of the retail markets that has been most affected by the Internet. B2B examples are less visible to most students. Companies like Staples that serve large and small businesses in different ways, through different channels, represent a good example.

The chapter used Charity:water as a nonprofit example. Susan G. Komen is an example of another kind. It has been fabulously successful and has done an excellent job of integrating its Internet activities into the offline events that are key to its strategy. Almost overnight it experienced a huge public relations disaster. The main stream media picked up the Planned Parenthood controversy from the web—bloggers and traffic on the organization’s Facebook page in particular. The fallout from this type of miscalculation by a charity has been magnified by the Internet and it takes time to know whether the organization will ever fully recover from a single misstep that took on epic proportions.

**9. Best practices represent business activities that consistently product good results. What is an example you have seen that might be a best practice in customer acquisition? In customer retention?**

These tend to be hard to document so you should keep your eyes open for good current examples. I just posted a 5-minute product marketing video for my students. It’s an excellent video for a mobile commerce product. Beyond that, I received it embedded in an email (and it was correctly an acquisition email; good list work) and it played perfectly from the email itself. Good work!

I get tons of retention email in the early spring because I have bought from many different gardening sites and they all want my business this year. Most of them are offering me substantial incentives. They tend to be highlighted in a catalog mailing and repeated in emails.

Staples, however, reversed the process. Or more correctly, I keep unsubscribing from their email newsletter/offers because they don’t prompt me to buy. That category, for me, is a matter of need, not of impulse. Not missing a beat, Staples just emailed me a $10 off on purchases of computer paper, which I do buy there with regularity.

**10. This chapter emphasizes throughout that business and marketing processes are changing in fundamental ways as a result of the Internet. Discuss in considerable depth one specific driver of change and identify ways in which it is altering the way businesses conduct their daily and strategic activities.**

The list of change agents is not included in edition 3, but cost and access to customers are obvious.

Ask them for examples. Be sure they understand that adding channels adds costs, so it needs to add revenue also. And, even before we discuss direct marketing in Chapter 4, that they do not mistake absence of retail facilities from automatic decreases in costs.

The strategic drivers are:

1. Information produces the greatest value—[www.tripadvisor.com](http://www.tripadvisor.com) is an example of using consumer-generated content to add value.
2. Distance does not matter—iTunes was suggested as the example. Note that iTunes now distributes podcasts, which are assuming importance in marketing activities
3. Speed is of the essence. In many ways the expectations of consumers have been increased by the Internet. You don’t have to wait for the weather, a stock quote, or selected news. You can not only go to Weather.com, your broker’s site, or CNN.com—from any of these sites you can get twitter feeds that give you up to date information on subjects of your choice wherever you are.
4. People are the key assets. Some people ask, “Haven’t they always been?” Historically, students can think back to the assembly line and know that in the early days of the industrial revolution people were considered interchangeable. Students may be happy to provide their own examples that, in many contemporary organizations, individuals are still not valued and supported, especially in ways that support their Gen Y or Millinneal values.
5. Growth in the network causes exponential increase in value. It is important for students to understand “the network effect.” I’ve never found a better example than the fax machine, although you might try updating it by using an example like SMS messaging. It doesn’t matter if your cell phone has the functionality if your friend’s does not.
6. Marketers can deal with customer one-to-one. This is a true statement, but students will realize as the course goes on, especially with the coverage of CRM, that it’s not as easy as it sounds. An email newsletter, especially one that appears to have content customized to your purchasing behavior, is a good example.
7. Demand can be predicted with greater accuracy. The NikeID site ([www.NikeID.com](http://www.NikeID.com)) will be used in a later chapter as an example of “they do not make it until the customer orders it.”
8. Cost patterns change. The changing economics of the Internet will be discussed briefly in the business models chapter. Email newsletters invariably and television ads increasingly try to drive purchasers to the lower-cost ecommerce channel.
9. Consumers have power in information-rich channels. Some would say that the amount of information confers on them ultimate power. Ask your automobile dealer! Amazon or Netflix, both of which make good use of customer ratings, are good examples.
10. An information economy is characterized by choice and abundance. That is, for the most part, wonderful for consumers. How do marketers make their products and services visible in the midst of the profusion of information about other products and services? That is the targeting and creative challenge we will discuss in coming chapters.

**Internet Exercises**

**1. See the discussion of the Internet Career Builder Exercise in the introduction to the Instructor’s Manual.**

**2. Select an organization (corporate or nonprofit) with which you are somewhat familiar that uses both online and offline channels. Discuss two or three specific examples of how it is taking advantage of the Internet in general and the drivers of strategic change in particular.**

This is a good discussion exercise and could make a two or three page written assignment. If you want to focus them on a specific organization for class discussion, perhaps there is a local enterprise that has a robust website—the local newspaper may prove to be interesting. The American Red Cross and the Association for the Prevention of Cruelty to Animals are two nonprofits that have good websites. The motor vehicle registration site of your state government could also be interesting. If you are going to do it as an in-class exercise, you may want to assign the students to visit the website before class so they can form their own opinions.

**3. Select three different websites that you will follow for the semester. Your instructor may make several different assignments based on these sites, so you should choose sites of substance though they do not have to be large. Each should, however, be a brand site, not a site for a mega corporation. Following at least one not-for-profit site can add to the learning experience.**

**Signing up for free newsletters from the sites you select will help you understand the various elements of their online strategies and may also give you insight into how their multichannel marketing is carried out.**

**If the company has retail outlets nearby, you should also consider a visit to the retail site, looking for ways in which the firm is integrating marketing activities on and off the Internet.**

I’ve used variations on this semester-long assignment off and on for several years and it works well. It is relatively easy to police it to ensure that each student has a unique set of sites and, if you feel the need, to keep records to ensure that students do not replicate the same set of sites from one semester to another. I do recommend that the site choices be submitted in writing for formal approval and that they not be changed without specific permission.

In succeeding chapters there will be several exercises based on this.

**4. Consider creating a blog to record your insights and discoveries as you move through the Internet marketing course. Blogs will be discussed in Chapter 9. Directions for creating your own blog can be found on free blog sites like Blogger (**[www.blogger.com](http://www.blogger.com)**) or on the free version of WordPress.**

Keeping a blog to document learning over the semester is a variant of student journals used in a variety of courses. Simply learning to do it is an interesting Internet marketing exercise. You can also let them choose a subject for their blog instead of making it a journal. Either way, you will probably need to specify how active the blog should be—a post at least once a week, perhaps.

The problem with this assignment is that blogs aren’t as much fun if people aren’t reading them and commenting on posts of interest. Alternatively, you could set up a team structure in which members of one team are assigned to read other blogs on a regular basis and make comments.

Another alternative is to have the class do something like a blog for the student marketing club that has information about activities and links to marketing career resources. There are a lot of possibilities, and Blogger takes you through the process of setting one up in a very easy and straightforward manner.

**5. Consider getting together with several of your classmate to create a Facebook page to share resources and insights as you progress through the course. You might consider making it closed page in order to gain experience in work-related collaboration on a social network.**

This sounds like a great idea, but the web is cluttered with Facebook pages that students of mine, in courses and programs around the world, have set up. They primarily do it because they’ve found their fellow students interesting and the content useful and they want to keep it going. It just doesn’t happen, at least for very long. That’s why I make assignments of things like blogs and discussion communities; otherwise they don’t last long. However, asking your students to do this would give them a powerful insight into how difficult it is to keep a social community going.

**Key Terms**

**acquisition** the process of obtaining new customers.

**ARPANET** stands for Advanced Research Project Agency, originally an arm of the U.S. Department of Defense, which in the 1950s, developed a connected system of computers that formed the basis of the modern Internet.

**business model** the operational processes by which a business creates value, provides value to its customers, and captures value in the form of profits.

**cloud computing** use of a remote network to store, manage and process data.

**GPS (Global Positioning System)** a satellite-based system for accurate location of a signal anywhere on Earth.

**hosting** storing a website on the servers that will make it available to the Internet; can be done internally or by specialty suppliers that offer hosting and associated services such as web metrics.

**HTML (HyperText Markup Language)** one of the foundations of the common Internet platform, HTML describes the structure of Web documents using a type of coding called tags.

**infrastructure stack** term used to describe the various layers of hardware, software, and purchased services that make up the network on which the Internet runs.

**retention** preventing existing customers from defecting to another seller.

**scalability** the degree to which an information system can grow with demand without completely replacing the system.

**server** computer from which other computers request files.

**SaaS (Software as a Service)** software as a service; making software available on a fee for use basis instead of on a license or purchase basis.

**telecommunications** network of copper land lines, fiberoptic cables, and wireless transmitters that allows voice, data, text, graphics, and video to be transmitted over long distances.

**Web 2.0** second-generation Internet that provides better interactivity, information sharing, and collaboration.

**Web 3.0** third-generation Internet which is expected to have semantic abilities that support learning and personalization of web experiences.

**Web Services** applications that allow enterprises to exchange information over the Internet using open (public) standards; this permits otherwise incompatible systems to interact with one another without human or programming intervention.