

# Lesson 2: Internet Communication

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## Objectives

By the end of this lesson, you will be able to:

- ✦ 1.7.3: Use remote-assistance clients and servers, including Microsoft Remote Services.
- ✦ 1.7.4: Configure and use instant messaging clients.
- ✦ 1.7.6: Identify privacy concerns related to network communications (e.g., e-mail, instant messaging, P2P).
- ✦ 1.7.8: Identify the benefits and drawbacks of text messaging and Short Message Service (SMS) applications (e.g., mobile phone services, Twitter).
- ✦ 1.8.1: Define etiquette for Internet-based services and identify common communications aids.
- ✦ 1.8.2: Identify ethical issues when communicating with others using Internet-based technology.
- ✦ 1.8.3: Recognize and avoid sexual harassment.
- ✦ 1.8.4: Create pertinent, appropriate and brief messages.
- ✦ 1.8.5: Define convergence and unified communications technologies, including Voice over IP (VoIP), presencing, mobile computing, call/contact centers, conversion of voice to text.
- ✦ 1.19.1: Identify common elements of a blog (e.g., creating an entry, posting replies, common features of blogging services).
- ✦ 1.19.2: Define the concept of a mashup.
- ✦ 1.19.3: Distinguish between traditional categories and folksonomies.
- ✦ 1.19.4: Identify key elements of a wiki.
- ✦ 1.19.5: Identify elements of a news feed service (e.g., syndication, RSS-to-e-mail services, Feedblitz, Feedburner).
- ✦ 1.19.6: Identify social networking sites and resources (e.g., Facebook, Google+), and define essential social networking terms, including crowdsourcing, social tagging (e.g., Delicious), semantic Web.

## Pre-Assessment Questions

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1. Which of the following Web 2.0 tools or technologies provides the user with both author and editor privileges, so that he or she can create or update collaborative Web sites "on the fly"?
  - a. Ajax
  - b. Blogs
  - c. RSS
  - d. Wikis
  
2. Which term can be defined as a person's willingness and ability to engage in communications?
  - a. Convergence
  - b. Presence
  - c. Voice over IP
  - d. Mobile computing
  
3. Describe the differences between instant messaging and text messaging.

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## Communicating via the Internet

With the explosive growth of the Internet, new technologies and ways of communicating are making personal interaction fast, efficient and, for some, a bit intimidating. This lesson will introduce some of these new technologies and communication methods that are quickly becoming the norm in today's world.

In this lesson, you will study modern technologies such as Ajax, wikis, folksonomy, Web feeds, podcasts, semantic Web, mashups, social networking, instant messaging, text messaging and blogging. These have often been referred to as "Web 2.0" technologies over the years. You will also learn about guidelines for communicating effectively over the Internet, and about unified communications technologies that seek to simplify and integrate all forms of communication.



### CIW Online Resources – Movie Clips

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to watch a movie clip about this topic.

*Lesson 2: Internet Communication*

#### OBJECTIVE

1.19.6: Social networking

#### Web 2.0

A concept referring to the changing trends in the use of WWW technology and Web design that have led to the development of information-sharing and collaboration capabilities.

## Modern Web Technologies

**Web 2.0** is a term coined in 2004 by Tim O'Reilly of O'Reilly Media. It does not mean a second version of World Wide Web software. Rather, it refers to the changing trends in the use of World Wide Web technology and Web design since the early days of the Web when most Web pages were static, when users simply retrieved information, and when Internet connections were slow. Web use before the "bursting of the dot-com bubble" in 2001 is now referred to as Web 1.0.

Over the years, the term "Web 2.0" has been used simply to refer to progressive uses of the Web, including social networking and the use of the Web browser as a platform for sophisticated applications. This lesson will use the phrase "Web 2.0" to refer to these modern tools and techniques.

## Collaboration

#### crowdsourcing

A problem-solving model in which a task ordinarily performed by one person is outsourced to a large group or community in order to obtain and analyze large amounts of data.

Web 2.0 is a paradigm shift in the way the Internet is used compared with the days of Web 1.0. Web 2.0 involves a more open approach to the Internet that concentrates on developing the information-sharing and collaboration capabilities of the Web. Web 2.0 enables the use of **crowdsourcing**, in which users who access the Internet, view media and use the Web become active contributors, helping to customize the available technology and media for their own purposes, as well as for those of their communities. Web 2.0 contrasts sharply with the Web 1.0 philosophy, in which news was provided only by a few large corporations, Web pages were static and rarely updated, and only users who were technically proficient could contribute to the development of the Web.

#### collective intelligence

The ability of a group to exhibit a greater degree of intelligence by solving problems collaboratively compared to the intelligence of an individual member.

Web 2.0 has enabled users to provide a significant amount of information on the Web, and there are no longer any restrictions on what they produce. Enabling non-technical users with the freedom to create and edit any page in a Web site has allowed users to collaborate as they help build Web content. Building upon the old adage that "two heads are better than one," Web 2.0 has made it possible for users to apply their **collective intelligence** to produce content via the Web that is perhaps more innovative and richer than an individual user could produce alone.

**NOTE:**

"Web 2.0" does not represent a new version of the World Wide Web. Web 2.0 refers to new ways in which software developers and users use the Web. It makes use of Web technologies that were always present but not technically or practically feasible in Web 1.0.

## Communities and services

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Web 2.0 has also led to the development of Web-based communities and hosted services, such as social networking sites, wikis, blogs, SMS applications, RSS feeds, podcasts, folksonomies, and file-sharing sites for video, audio and images. The Web is now a resource through which users have the ability to generate and distribute content, as well as to update and modify it. This can result in an increase in the economic value of the Web to businesses, as users can perform more activities online. Examples of companies that use the Web 2.0 business model include the following:

- Wikipedia (*www.wikipedia.org*)
- Google+ (*http://plus.google.com*)
- Facebook (*www.facebook.com*)
- YouTube (*www.youtube.com*)
- Photobucket (*http://photobucket.com*)
- BitTorrent (*www.bittorrent.com*)
- SourceForge (*http://sourceforge.net*)

## Common technologies and tools

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Many new technologies and tools have appeared since the Web 2.0 paradigm emerged. In the following sections, you will learn about Web 2.0-enabled technologies including the following:

- Ajax
- Wikis
- Folksonomy
- Web feed services
- Podcasts
- Semantic Web
- Mashups

**Ajax**

A programming methodology that uses a number of existing technologies together and enables Web applications to make incremental updates to the user interface without the need to reload the browser page.

**XMLHttpRequest**

An application programming interface (API) that is used to transfer XML and other text data between a Web server and browser.

## Ajax

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**Ajax** (Asynchronous JavaScript and XML) is a programming methodology for the Web that enables Web applications to interact with users in much the same way they do with desktop applications. Ajax allows you to create interactive Web applications using HTML, CSS, the Document Object Model (DOM), JavaScript and **XMLHttpRequest**. You can use Ajax to create dynamic and interactive Web pages without the need to refresh or reload the page. Ajax will work only on the more advanced browsers (6.x or higher).

In traditional Web applications, the interaction between the server and the user is synchronous. When a user performs an action, the action triggers a request to the server, which renders the appropriate page in the user's browser. The user must then wait for the page to load while the request is being processed. Each action a user performs results in lag time. Once the request is processed, the server sends the results back to the user.

With Ajax, the interaction between the server and the user is asynchronous. JavaScript that is loaded when the page loads handles most of the basic tasks such as data validation and manipulation, as well as rendering the page. While the JavaScript is

rendering the page for the user, it is simultaneously sending data back and forth to the server. But the data transfer is not dependent upon actions of the user. Therefore, the normal lag and delay caused by server calls is eliminated because the information is being sent asynchronously via JavaScript calls.

**NOTE:**

Users whose browsers do not support Ajax or JavaScript, or simply have JavaScript disabled, will not be able to use its functionality.

Meebo Messenger ([www.meebo.com/messenger](http://www.meebo.com/messenger)) is an example of an Ajax-driven Web application. Meebo is a free instant-messaging (IM) program that combines existing IM services onto one Web interface. Meebo supports AOL Instant Messenger (AIM), Yahoo! Messenger, Skype (replacement for Windows Live Messenger), Google Talk, Facebook, Jabber and others.

Meebo enables users to engage in instant messaging without the need to download and install any software. The Meebo Messenger home page is shown in Figure 2-1.

**NOTE:**

In 2013, Windows Live Messenger users were automatically migrated to Skype when Skype was acquired by Microsoft.



Figure 2-1: Meebo Messenger home page

**OBJECTIVE**

1.19.4: Wikis

**wiki**

A page or collection of Web pages that can be viewed and modified by anybody with a Web browser and access to the Internet.

**Wikis**

A **wiki** is a page or collection of Web pages that can be viewed and modified by anybody with a Web browser and access to the Internet. When you open a wiki, you can read what the wiki's community has already written. You can then click an Edit button in the wiki article to edit the article's text. You can add or modify any content you want in the article.

Wikis provide users with both author and editor privileges, and are often used to create collaborative Web sites and to promote community Web sites. They have become semi-authoritative voices on particular topics. Wikipedia ([www.wikipedia.org](http://www.wikipedia.org)) is perhaps the best-known example of user collaboration to build a Web site containing information that all other users can access as well as populate. It has become an often-used reference by many users who view it as a reliable source of information. The Wikipedia home page is shown in Figure 2-2.

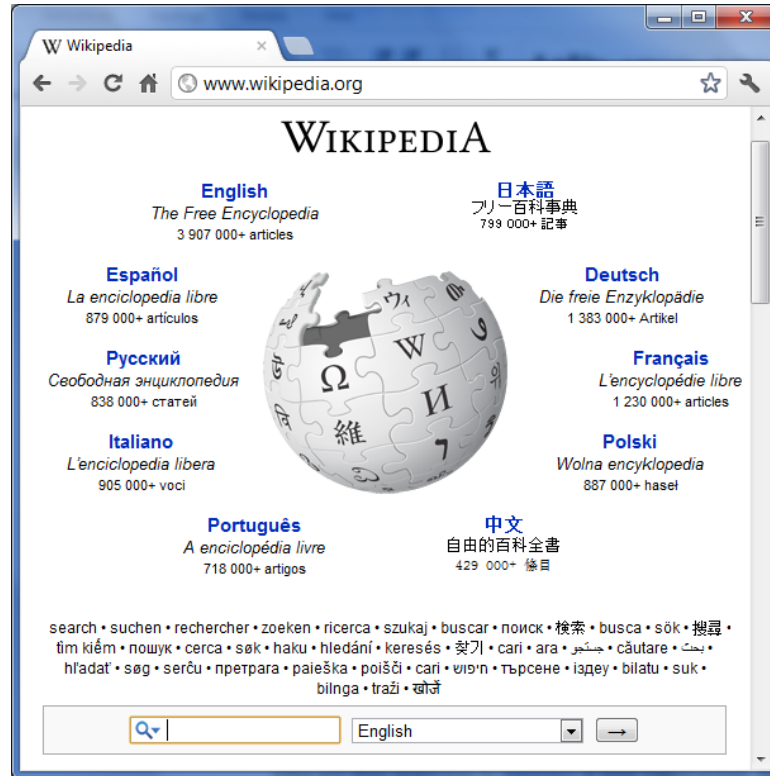


Figure 2-2: Wikipedia home page

The open-editing concept of wikis does present some inherent risks. To combat against the inclusion of inappropriate language, spam, and incorrect or inappropriate content, wikis are often monitored by members of their communities. However, monitoring wikis can be both time-consuming and personnel-intensive. As a result, many wikis now require authorization so only group members can modify content.

Another potential shortcoming of a wiki is that it can have a collaborative bias. As the wiki's community adds and modifies content, it can start reflecting the opinions, perspectives and values of its users. Therefore, a wiki may not be completely unbiased in its presentation of a particular topic or issue.

#### OBJECTIVE

1.19.3: Traditional categories vs. folksonomies

#### folksonomy

The practice of categorizing online content through tags.

## Folksonomy

**Folksonomy** is the practice of categorizing online content through tags. Tagging, which is a characteristic of Web 2.0, allows non-technical users to collectively classify and find information. The term was coined in 2004 by information architect Thomas Vander Wal.

A folksonomy is usually created by a group of individuals, typically the resource users themselves. Users add tags to online items, such as text, images, videos and bookmarks. These tags are then shared and can be modified by other users. The tags themselves can consist of keywords, category names or metadata. However, because users are creating the tags, items can be categorized with any word that defines a relationship between the resource and a concept in the user's mind. The user can choose any number of words, some of which will obviously represent the item, while others may make no sense to anyone but the user.

Tags are a great way to bring others to your blog or Web site and draw attention to your posts. By allowing people to share information effectively, the use of tags encourages the

growth of online communities. And by bringing communities together around common interests, tags add value to the information those communities accumulate.

**OBJECTIVE**  
1.19.6: Social networking

Two well-known examples of folksonomy systems are Delicious (<http://delicious.com>) and Flickr ([www.flickr.com](http://www.flickr.com)), both owned by Yahoo! Delicious is a tool used to organize Web pages by offering a tagging system for URLs that integrates with the Firefox browser through bookmarklets (JavaScript interface elements). Users can use Delicious to store and retrieve their bookmarks on the Delicious site and to identify each bookmarked URL with appropriate metadata. Flickr is a photo management and sharing Web application that users can use to identify their photographs by applying tags, such as names of people or places in their pictures. Users can browse each site for resources that match a given tag.

A major shortcoming of current folksonomy systems is that because users furnish the tags, the terms can be ambiguous and imprecise. However, many users do not consider this to be a problem because they believe that tags are there primarily to assist the particular user who is submitting them.

**OBJECTIVE**  
1.19.5: News feed service elements

**Web feed**  
A data format for delivering Web content that is updated frequently.

## Web feed services

A **Web feed** is a data format for delivering Web content that is updated frequently, such as blog entries and news headlines. Web feed formats allow you to view headlines and updates from your favorite Web sites without the need to open your Web browser or visit any Web sites. Content distributors syndicate the Web feeds, which means that they make the content publicly available to users who want to subscribe to the feeds.

**OBJECTIVE**  
1.3.4: RSS and Atom

The two popular feed formats are:

- **RSS (Really Simple Syndication, RDF Site Summary or Rich Site Summary)** — currently at version 2.0. RSS is the original family of Web feeds developed in the early-first decade of the 21st century. RSS 2.0 has the widest acceptance of any feed format.
- **Atom** — currently at version 1.0. Atom is a relatively recent development but is much more robust and feature-rich than RSS. Atom provides a formally structured, well-documented format that is designed solely for the syndication of entire news articles.

Atom is the next generation of XML-based file formats, designed to allow information to be syndicated between applications. Unlike RSS, Atom provides not only the document's content, but also metadata about the document: what it is called, who created it, when it was created and where it is located. Atom also provides standardized elements called constructs. Constructs allow new elements to be added to an Atom feed in a controlled fashion.

Some news sites offer RSS feeds to which users can subscribe, allowing you to keep track of the latest updates to major news stories.

Web feeds can be read using software called a news reader, feed reader or aggregator. An aggregator is a Web browser or client application that collects, or aggregates, syndicated Web content into a single location that users can use to easily view the content. To start receiving Web feeds from your favorite Web sites, you need only download an aggregator, and then customize it to search for content based on specific keywords or information.

Web feed aggregators are included in:

- Mozilla Firefox ([www.mozilla.org](http://www.mozilla.org)).
- Internet Explorer 7 and higher ([www.microsoft.com](http://www.microsoft.com)).

- Mozilla Thunderbird ([www.mozilla.org](http://www.mozilla.org)).
- Safari ([www.apple.com](http://www.apple.com)).
- Windows Live Mail (<http://home.live.com>).

Some users want to view their Web feeds in the familiar setting of their e-mail inbox, rather than subscribing to a feed and viewing it through an aggregator. Applications known as Web feed management providers allow users to accomplish exactly that. These applications allow users to receive their Web feeds in their e-mail inboxes, similar to an e-newsletter. Popular Web feed management providers are:

- FeedBurner ([feedburner.google.com](http://feedburner.google.com)).
- FeedBlitz ([www.feedblitz.com](http://www.feedblitz.com)).

## Podcasts

A **podcast** is similar to an RSS feed in that the user can download syndicated audio or video digital-media files to a computer or portable media player, such as an Apple iPod. Podcasts can also consist of rebroadcasts of radio or television content, educational tutorials, and other audio content.

A podcast differs from other digital formats, such as streaming media, in that the podcast files can be syndicated, subscribed to and downloaded automatically as you add new content. Users who want to subscribe to a podcast's syndicated media need feed aggregator software, such as Apple iTunes player ([www.apple.com/itunes](http://www.apple.com/itunes)).

### podcast

The use of audio or video digital-media files that are distributed through Web feeds to subscribed users.

### OBJECTIVE

1.19.6: Social networking

## Semantic Web

People use the Web to perform all kinds of tasks, from searching for information to purchasing items. However, a computer cannot perform the same tasks without human direction because Web pages are designed to be understood by people, not computers.

**Semantic Web** implementations are Web applications that have the ability to contextualize data as they process it; the data can be augmented with metadata to give it meaning. The metadata supplements the content designed for humans with machine-readable information. Once applications have the ability to apply context to data, computers can perform tasks associated with finding, sharing and combining information on the Web without human intervention.

Various languages exist for providing syntactic structures that describe data:

- **Resource Description Framework (RDF)** — You can learn more about RDF at [www.w3.org/RDF/](http://www.w3.org/RDF/).
- **Web Ontology Language (OWL)** — You can learn more about OWL at [www.w3.org/TR/owl2-overview/](http://www.w3.org/TR/owl2-overview/).
- **Extensible Markup Language (XML)** — You can learn more about XML at [www.w3.org/XML/](http://www.w3.org/XML/).

### semantic Web

A Web 2.0 implementation by which Web data is contextualized with the addition of machine-readable metadata.

### OBJECTIVE

1.19.2: Mashups

### mashup

A Web page that integrates content and scripts from multiple Web sites to create new applications.

## Mashups

A **mashup** is a Web page that merges content and scripts (application programming interfaces [APIs]) from multiple Web sites to create new, innovative applications that contain content the individual Web site authors did not anticipate for their own sites. Developers typically use the Ajax Web application model to create mashups.



Mashup applications generally fall into four categories:

- **Mapping mashups** — These types of mashups annotate data about items and activities with geographic locations. Mapping mashups can then display the data about the items and activities graphically using maps. Mapping mashups became popular after Google introduced Google Maps (<http://maps.google.com>).
- **Video and photo mashups** — These types of mashups combine photos or videos with metadata (e.g., data about who created the photo or video, as well as where and when) provided by the image's host. For example, a photo mashup may match tagged photos to the words of a news item to render the news item in a Web browser as a page that contains no words. Instead, the page consists of one or more photographs.
- **Search and shopping mashups** — These types of mashups integrate comparative price data so consumers can conduct comparative shopping on the Web. Consumer Web sites such as eBay ([www.ebay.com](http://www.ebay.com)) and Amazon ([www.amazon.com](http://www.amazon.com)) make their APIs available so developers can access their content.
- **News mashups** — These types of mashups combine Web feeds, such as RSS and Atom, that can provide information about news items that reflect a user's particular interests.

**NOTE:**

Creating mashups is a way for you to add value to your Web sites by incorporating information that site visitors would not ordinarily expect to see.

Following are sample mashup sites:

- **Panoramio** ([www.panoramio.com](http://www.panoramio.com)) — a mashup of Google Maps and location photographs that are placed relative to the subject's geographic location.
- **Hiking Outpost** ([www.hikingoutpost.com](http://www.hikingoutpost.com)) — a mashup of Amazon.com and online hiking information.
- **Flash Earth** ([www.flashearth.com](http://www.flashearth.com)) — a mashup of Yahoo! Maps and Microsoft's Virtual Earth.
- **HousingMaps** ([www.housingmaps.com](http://www.housingmaps.com)) — a mashup of Google Maps and Craigslist rental ads that displays geographic information about rental properties.

**OBJECTIVE**

1.19.6: Social networking

**social networking**

The practice of creating networks of friends, associates and clients who can discuss topics in common. Online social networking is a powerful concept used by individuals and businesses worldwide.

## Social Networking

**Social networking** refers to the grouping of individuals with common interests or goals into specific groups or communities. Online social networking is conducted through Web sites because there are potentially millions of Internet users who have interests in specific topics about which they would like to share information and opinions.

Social networking allows members to use networks of online friends and group memberships to keep in touch with current friends and reconnect with old friends. Members can also share their interests with a larger group of potential "friends" by joining groups and forums. Once you are involved with a social networking site, you can begin to create your own network of "friends" and eliminate users who do not share common interests or goals.

Most social networking Web sites allow members to design a profile page to introduce themselves to other members. The profile page can be used to create the online "personality" by which you want to become known. Popular features of social networking sites include photo-sharing and video-sharing so members can share pictures, listen to songs, and watch music videos, TV clips, movie trailers, member-created videos and so forth.

Online social networking does pose the risk of predatory behavior on the part of some members who may claim to be someone they are not. If you proceed with caution and use common sense, you can safely enjoy online social networking.

Following is a list of common social networking sites:

- **Bebo** ([www.bebo.com](http://www.bebo.com)) — a social networking site designed for friends who want to stay in touch, share online media and so forth. Bebo is an acronym for Blog Early, Blog Often.
- **Classmates.com** ([www.classmates.com](http://www.classmates.com)) — a social networking site that connects its members with friends and acquaintances from school, work and the military.
- **Cyworld** (<http://us.cyworld.com/>) — a social networking site created in South Korea and designed for friends who want to stay in touch, share online media and so forth.
- **Delicious** (<http://delicious.com/>) — a social bookmarking site that allows users to find, store and share Web bookmarks.
- **Digg** (<http://digg.com/>) — a social news site on which users can post links to news content on the Web. Users may then vote on the posted links, causing them to display more or less prominently on the Digg home page.
- **Dopplr** ([www.dopplr.com](http://www.dopplr.com)) — a social networking site that allows users to share future travel plans with each other. The service then highlights correlations among the travel plans, indicating points at which users may meet.
- **Google+** (<http://plus.google.com>) — a social-networking site featuring video "hangouts" and "circles." Circles allow users to create separate groups with which to have conversations. For example, you can create a circle for friends, another circle for family, and another circle for co-workers.
- **Tagged** ([www.tagged.com](http://www.tagged.com)) — a social networking site designed for meeting new people, playing games staying in touch with friends, sharing online media and so forth.
- **Facebook** ([www.facebook.com](http://www.facebook.com)) — a social networking site containing networks that users can join which are organized by city, workplace, school and region.
- **Flickr** ([www.flickr.com](http://www.flickr.com)) — a photo-sharing and video-sharing Web site that allows users to store digital photos and videos and share them with other users. You can limit content to only certain Flickr users, or open up the content to anyone, even anonymous users. Bloggers also often use the site as a photo repository.
- **deviantArt** ([www.deviantart.com](http://www.deviantart.com)) — a social-networking site for artists to exhibit, promote and share their work. Artists upload original works, including digital media and images of traditional art, such as sculptures and paintings.
- **LinkedIn** ([www.linkedin.com](http://www.linkedin.com)) — a professional networking service designed to help people find and connect with others in a work-related context. Users can post their professional résumés, job positions, education, skills and experience. They can also contact each other through a network of connections to seek jobs, business leads and industry information. A LinkedIn profile page is shown in Figure 2-3.

**NOTE:**

As of this writing, Facebook is the most-visited social-networking Web site, Twitter was No. 2, and LinkedIn was No. 3.

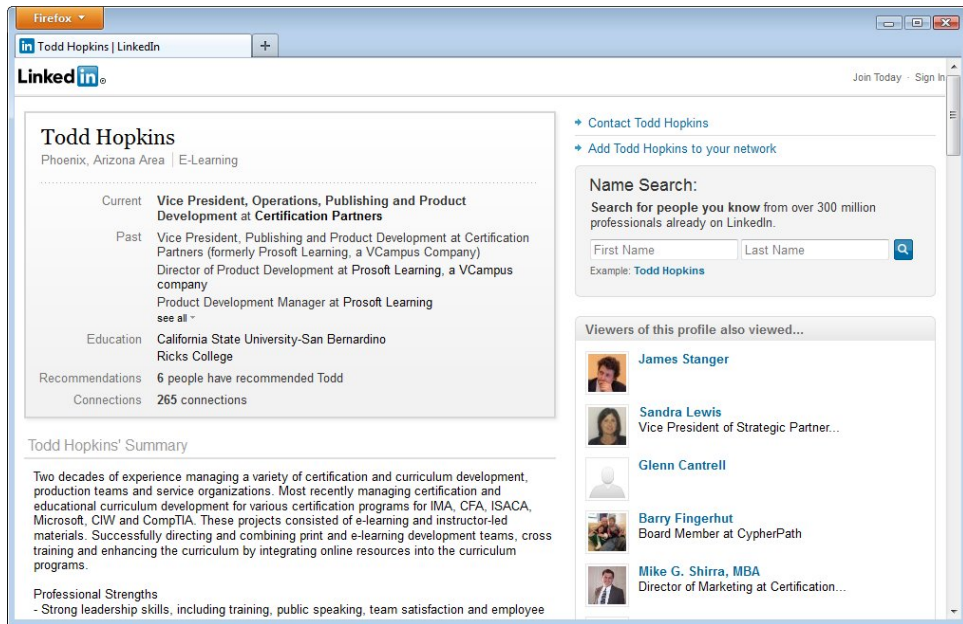


Figure 2-3: LinkedIn profile page

- **MySpace** ([www.myspace.com](http://www.myspace.com)) — a social networking site that allows members to submit personal profiles, networks of friends, blogs, music, photos and videos.
- **Orkut** ([www.orkut.com](http://www.orkut.com)) — a social networking site designed for friends who want to stay in touch and meet new friends. The majority of users are from Brazil and India.
- **Picasa** (<http://picasa.google.com/>) — a photo-sharing site that allows users to load, organize, edit and share digital photos. The Picasa application was purchased by Google in 2004.
- **Plaxo** ([www.plaxo.com](http://www.plaxo.com)) — a social networking site that serves as an online contact management service.
- **Reddit** ([www.reddit.com](http://www.reddit.com)) — a social news site on which users can post links to news content on the Web. Users may then vote on the posted links, causing them to display more or less prominently on the Reddit home page.
- **StumbleUpon** ([www.stumbleupon.com](http://www.stumbleupon.com)) — a social content-referral site that allows users to rate Web pages, photos and videos. It uses the opinions of its members to create communities of like-minded Web surfers.
- **Twitter** (<http://twitter.com>) — a social networking and blogging site that allows members to post messages of up to 140 characters (including spaces).
- **YouTube** ([www.youtube.com](http://www.youtube.com)) — a video-sharing service that allows users to upload, view and share video clips.
- **Xanga** ([www.xanga.com](http://www.xanga.com)) — a social networking site that allows users to share photos and send blogs.

## Privacy and responsibility on social networking sites

Social networking sites generally provide privacy protection for their users. Users register as members with such sites but often use screen names for communicating with other users, and the user contact information provided to the site is not posted for access by other site users.

However, the privacy services that social networking sites provide are not a substitute for common sense. Social networking sites are not responsible for the content that members post. The content that appears on these sites is the property of the user who posts it. For example, if Rob posts on a social networking site a defamatory comment about Bob that is legally actionable, Bob can sue Rob for libel, but cannot sue the site.

Additionally, if a user engages in illegal activity on a social networking site, authorities (e.g., the police, the FBI) can force the site to surrender the user's information for the purpose of prosecuting the user. Although social networking sites are not responsible for user-posted content, they cannot protect the user's privacy if that user is breaking the law.

## Social networking and business

**NOTE:**

For a list of the "50 Social Sites That Every Business Needs a Presence On," visit [www.insidecrm.com/features/50-social-sites-012808/](http://www.insidecrm.com/features/50-social-sites-012808/).

Social networking can also be used as a business tool by helping members post résumés, find jobs and establish business contacts. In fact, some social networking Web sites, such as LinkedIn ([www.linkedin.com](http://www.linkedin.com)), are designed specifically for building business contacts and relationships. You use these sites to create an online identity for yourself, which includes information about your current job, previous positions and general interests. You can also submit your own business contacts, and invite friends and colleagues to join to create your own group or network of business connections. You can then use the service to connect with friends and business contacts of your associates. By so doing, your circle of contacts multiplies as you contact individuals directly or meet individuals through mutual friends and associates.

### Who you know

Consider the old adage, "It's not always what you know, but who you know." Because this still holds true, social networking allows people to find and contact other people through the people that they already know.

Businesses can also use social networking to their advantage by listening to what consumers have to say about their products. People not only use the Internet to talk to existing friends and new ones who share their interests, they talk about brands they care about — as well as those with which they have bad experiences. Businesses can use the information they gather through social networking sites to create better products or services. If a business can encourage its consumers to interact with each other, as well as with the business itself, then the Web traffic for the business's brand can increase dramatically.

In the Internet era, businesses must change their marketing and sales paradigm to reflect the realities of the current marketplace. Historically, businesses could inundate consumers with marketing and sales pitches with little or no regard for their likes or dislikes. If consumers had complaints, they could communicate with the business privately, but with no guarantee that their complaints would be considered. Today, consumers can broadcast their opinions on blogs, online discussion forums and consumer product review Web sites, as well as to their friends via social networking.

### Business tips

Following are tips for a business on how to use social networking to its advantage:

- Use social networking to listen to consumers, thereby gaining valuable marketing intelligence about exactly what the market wants.
- Treat your consumers as "friends" and encourage long-term conversations with them.
- Identify your core enthusiasts and invite them to join your product-planning sessions.

- Identify incentives you can use to encourage consumers to engage with you to provide feedback.
- Be open and honest about mistakes, or else your consumers will spread the word and do incalculable damage to your business.
- Participate in your social networking group — offer pre-release news and product previews, then solicit feedback.
- Identify what your consumers are passionate about, then create products or services to address them.
- Use your own executives or even celebrities (if you can) to engage in your social networking group. People respond positively to such encounters and are more likely to stay engaged.

In the following lab, you will use the Google+ social networking service. Suppose you are interested in incorporating social media into your company's marketing strategy. You want to find out how Google+ works and how other organizations are using the service to promote their businesses.



### Lab 2-1: Using the Google+ social networking service

**OBJECTIVE**  
1.19.6: Social  
networking

In this lab, you will create a Google+ profile page and use the service to connect with individuals and organizations. You will use the Google account you created in the previous lesson. If you do not have one, please create an account at [www.google.com](http://www.google.com). You are responsible for creating and maintaining your own account.

1. Open your browser, go to [www.google.com](http://www.google.com) and sign in to your Google account.
2. Click **+You** in the Google menu.
3. The Add People You Know page should appear. In the Search For People On Google+ field, locate someone in your class by searching for his or her name or e-mail address. You may need to wait until classmates finish creating their Google+ accounts. It may also take several minutes for them to appear in search results. When your classmate appears in the search results, click **Add | Friends**, then click **Continue**.
4. The Follow Things You Love page should appear. Scroll through the list and click **Follow** for any groups you would like to follow, such as **Technology**, **Politics** and **News**. When finished, click **Continue**.
5. In the Keep Your Image Fresh page, update your public profile. You can enter your workplace, school and location. Click **Finish**.
6. Your Google+ home page should appear similar to Figure 2-4.

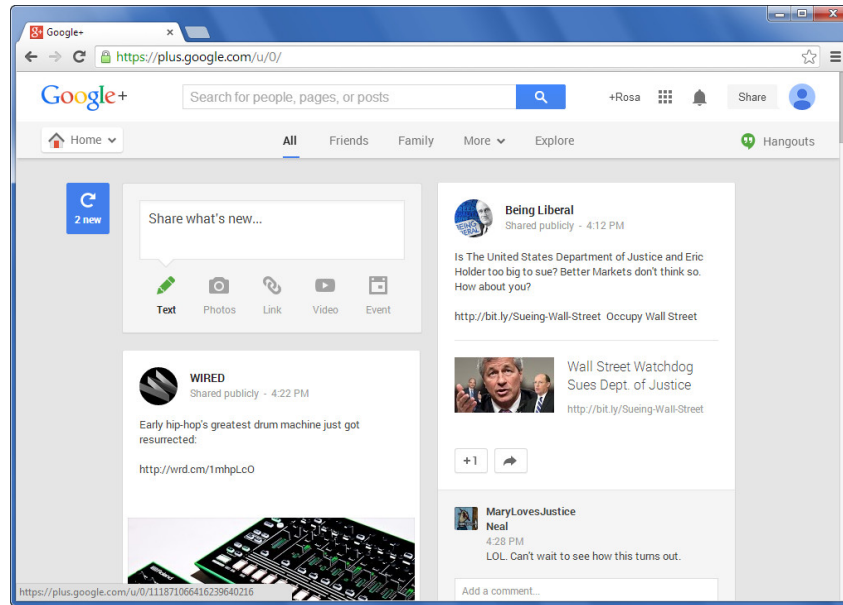


Figure 2-4: Google+ personal home page

7. Click the **Friends** menu link. Your classmate(s) should appear on the right side of the page. Position your mouse over their profile picture to display their profile.
8. To view the groups you are following, click the **More** drop-down menu and select one of the groups, such as Technology, Politics or News. Recent posts of the group will appear.
9. Discover how businesses and organizations use Google+. Click the **Home** link in the upper-left portion of the screen, then click the **People** link. The People page appears, listing the people you have added to your account. In the menu, click the **Your Circles** link. Recall that you are following several topics. All people within these topics will appear in the top pane, including various organizations and your friends, as shown in Figure 2-5.

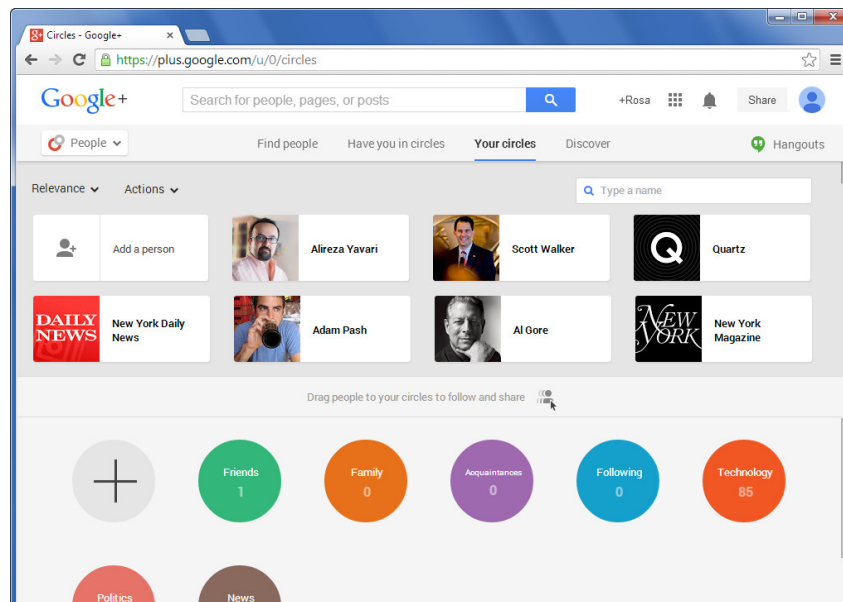


Figure 2-5: Google+ — Your Circles

10. To create your own circle, click the plus sign (+) circle icon in the upper-left corner of the lower pane. In the Circle Name text box, add a title, such as **My Private Circle**.
11. Click the **Add A Person** link, then locate and select a classmate. Click the **Create Circle with 1 Person** link to create the circle and redisplay the Your Circles page. Notice your new circle that appears in the lower pane, as shown in Figure 2-6.

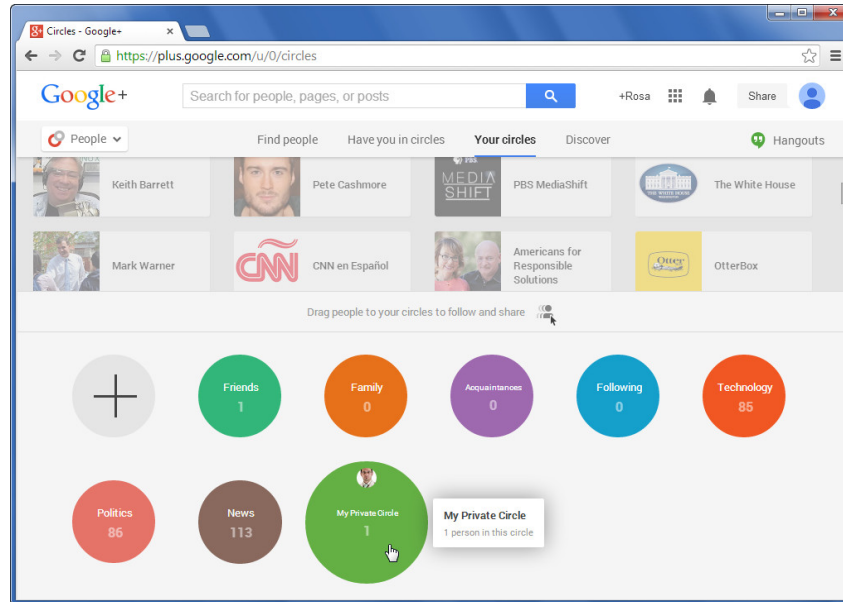


Figure 2-6: Creating Google+ circles

12. You can also drag items from the upper pane onto a circle to add them to the circle. In the upper pane, locate an item that you want to include in your new circle, then drag it to **My Private Circle**. Add additional people (and organizations) to your new circle.
13. When you are finished adding items to your new circle, double-click **My Private Circle** to open it and display its contents in the upper pane. Your screen should resemble figure 2-7.

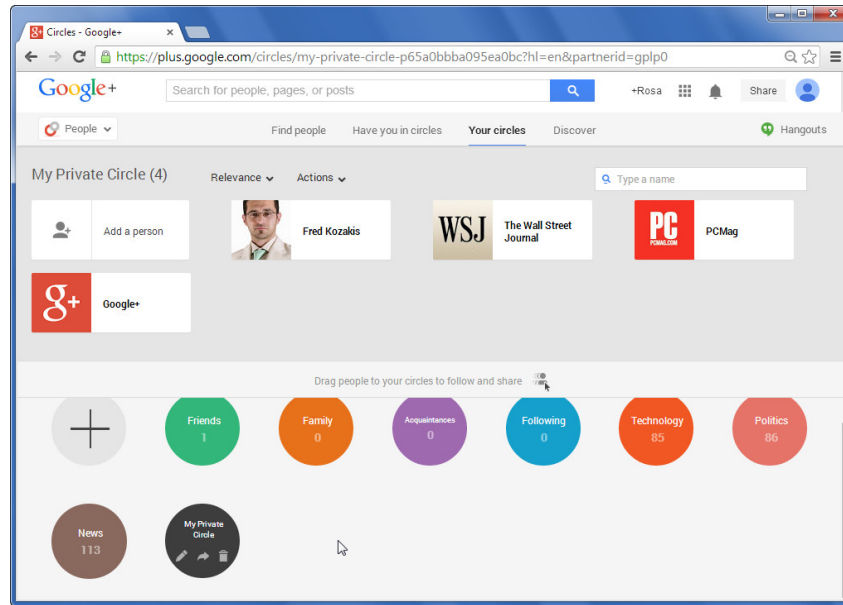


Figure 2-7: Creating Google+ circles (cont'd)

14. Return to your Google+ home page by clicking the **People** link, then clicking the **Home** link. Display the **More** drop-down menu and select your new circle, such as **My Private Circle**.
15. Scroll through the posts from the people and organizations you added to your circle. Consider the following questions:
  - How do organizations represent themselves?
  - What services do the organizations provide on this social networking site?
  - Do the organizations provide information on new products or initiatives?
  - Is this social networking site helpful for you, as a consumer or interested patron?
  - Do you think social networking is an effective marketing tool for organizations?
16. Navigate the different Google+ links and review additional features and tools the site provides.
17. When finished, sign out of your Google account.

What is your opinion of Google+? Is it easy to use? Can you see additional ways that social networking can be used in a business setting?

## Messaging

Text-based communication has become common with mobile communication devices (e.g., smartphones and tablets), as well as computers, that use the Internet. This real-time text-based communication is known as messaging and takes two main forms:

- Instant messaging
- Text messaging



**Instant messaging (IM)**

A computer-based method of communication in which users can type and view messages sent to one or more recipients, and view the responses immediately.

**NOTE:**

Before instant messaging came into widespread use, only major online services such as America Online, Prodigy and CompuServe provided chat rooms and instant messages to the members of their communities.

**NOTE:**

Windows Live Messenger, a popular IM service, was discontinued by Microsoft in 2013, and all users were migrated to Skype.

## Instant messaging

**Instant messaging (IM)** is a computer-based method of communication in which users can type and view messages sent to one or more recipients, and view the responses immediately. IM services use the Internet for the most part, although it is possible for IM services to also send messages to mobile phones, and vice-versa. Unlike e-mail, which can be sent whether the recipient is online or not, instant messages can be sent only to contacts who are currently online (that is, signed in to an instant messaging service).

Instant messaging can also be used to send files, view photos, send Web links, and talk to contacts (if your computer is equipped with a microphone and sound card).

Instant messaging is very popular in the workplace, allowing employees to "chat" without leaving their desks or using their telephones. You can also save long-distance telephone charges by sending instant messages to remote employees rather than calling. Because most instant messaging services allow for conversations among more than two people, you can in effect hold a conference via instant messages.

To use instant messaging, you must install an instant messaging client on your system and then sign up for service. Instant messaging allows you to specify a list of contacts (often called a buddy list or a contact list) with whom you want to communicate. When you log on to your instant messaging service, the status (online or not) of each of the contacts in your list will display. To open an instant messaging session, you specify an online contact and open a window in which you and your contact can type messages that both of you can see.

### IM service providers

Today, there are several IM services, clients and servers in use. Yahoo!, Microsoft and AOL use their own proprietary protocols and clients. Instant messaging clients are available from a variety of sources, including the following:

- AIM ([www.aim.com/](http://www.aim.com/))
- Google Talk ([www.google.com/talk](http://www.google.com/talk))
- Miranda IM ([www.miranda-im.org/](http://www.miranda-im.org/))
- Yahoo! Messenger (<http://messenger.yahoo.com/>)
- Skype ([www.skype.com](http://www.skype.com)) — replacement for Windows Live Messenger



Windows Live Messenger, a popular IM service, was discontinued by Microsoft in 2013, and all users were migrated to Skype.

### Third-party IM applications

Most IM providers supply their own IM clients. You do not have to use these, however. You can use applications provided by third parties. Such applications include Pidgin, Trillian and applications used on mobile phones.

Pidgin is a multi-protocol instant messaging application for Linux, BSD, Mac OS X and Windows operating systems. It is compatible with AIM, Skype, Yahoo!, Internet Relay Chat (IRC), Jabber, Gadu-Gadu and Zephyr clients. Pidgin allows you to exchange instant messages with users on various other clients (such as AOL and Yahoo!) simultaneously. You can download Pidgin for Windows at [www.pidgin.im/download/](http://www.pidgin.im/download/).

Trillian is a multi-protocol instant messaging application similar to Pidgin. You can learn more about Trillian at [www.trillian.im/](http://www.trillian.im/).

Many IM services provide applications that will run on various mobile phones, including iPhone and Android. Third-party applications that support multiple IM protocols include BlackBerry Messenger and IM+ for Android and iPhone.

**OBJECTIVE**  
1.7.6: Network communications privacy

### IM security and privacy

It is important to note that instant messaging is not a secure method of communication. You should never transmit sensitive information (credit card numbers, user names and passwords, etc.) in an instant messaging session. It is equally important to note that, like company e-mail, instant messaging conducted at work may be considered company property. Instant messages display in pop-up boxes on the status bar (unless a recipient has turned off that option). Is it realistic to expect that instant messaging conducted on the job will be private?

Following are some instant messaging services that include security features:

- **Trillian** ([www.trillian.im/](http://www.trillian.im/)) — supports multiple IM protocols and offers encrypted messaging.
- **Skype instant messaging** ([www.skype.com/intl/en-us/features/allfeatures/instant-messaging/](http://www.skype.com/intl/en-us/features/allfeatures/instant-messaging/)) — the popular voice- and video-calling software also provides an instant messaging application that features encrypted messaging.

**spim**  
Spam that is delivered through instant messaging.

Instant messaging has also given rise to **spim**. Spam is unsolicited and unwanted e-mail messages; spim is spam that is delivered through IM rather than through e-mail. Because instant messaging is immediate, users are more likely to click links, making IM an effective channel for spammers. Because instant messaging bypasses anti-virus software and firewalls, it is also an easy way to spread viruses. You can protect yourself against spim by blocking messages from anyone not on your contact list.

In the following lab, you will create a Skype instant messaging account, add a contact and send instant messages. Suppose the members of your department are located in various parts of your office building. You can use instant messaging to communicate in real time with co-workers who do not work near you, and you can communicate without others overhearing your conversations.

**NOTE:**  
The following lab previously used the popular Windows Live Messenger IM service. Windows Live Messenger was discontinued by Microsoft in 2013, and all users were migrated to Skype.

**OBJECTIVE**  
1.7.4: Instant messaging



### Lab 2-2: Using the Skype instant messaging client

**NOTE:**  
You must have a Microsoft account for this lab and other cloud-based services. If you do not have an account, sign up at the Microsoft Account Web site and create a Microsoft account using @outlook.com. Remember that you are responsible for your own account.

In this lab, you will download, install and sign up for Skype, create a contact list, and send instant messages. A lab partner is required for this lab. This lab requires a Microsoft account. You will use this account for the remainder of the course. If you do not have one, please create an account at <https://signup.live.com>. You are responsible for creating and maintaining your own account.

1. **Browser:** Create a Microsoft account. Go to <https://signup.live.com>. Complete the form to create a Microsoft account using @outlook.com (e.g., [ciw.yourname@outlook.com](mailto:ciw.yourname@outlook.com)). You are responsible for your account.
2. Copy the file **SkypeSetupFull.exe** from the **C:\CIW\Internet\Lab Files\Lesson02** folder to your Desktop, then double-click the executable file.
3. Specify to install Skype using the default configurations only.

4. Open Skype by clicking the **Start** button and selecting **All Programs | Skype | Skype**.
5. The Skype window will appear. Enter your Microsoft account name and password, then click the **Sign In** button.
  - Skype will ask you to check your speakers and video. Follow the onscreen prompts to do so.
  - Skype will request a profile picture or other image to represent you online. If your computer has a Webcam, take a picture of yourself and use it. If not, you can choose another image or skip this step.
6. Your Skype window should resemble Figure 2-8.

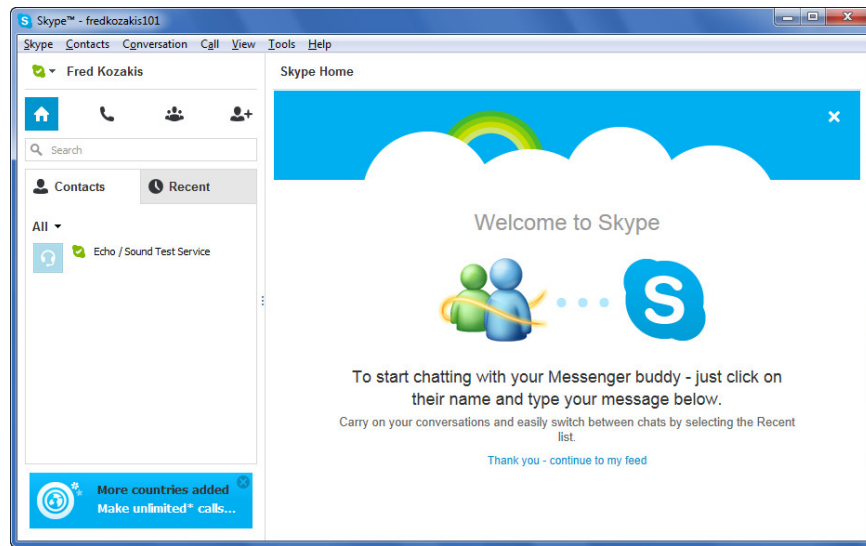


Figure 2-8: Signing in to Skype

7. Next, you will create a contact list. Click the **Add A Contact** icon (the fourth button under your Skype name in the upper-left part of the screen) to add a contact. Type your lab partner's Microsoft account e-mail address, then press **ENTER**.
8. Click your lab partner's name, click **Add To Contacts** in the upper-right corner of the window, then click **Send**. Your lab partner's name should appear in the Contacts column.
9. Add your lab partner as a favorite by clicking the **Add to Favorites** icon (the star icon to the left of your lab partner's name at the top of the window). Your Skype window should resemble Figure 2-9.

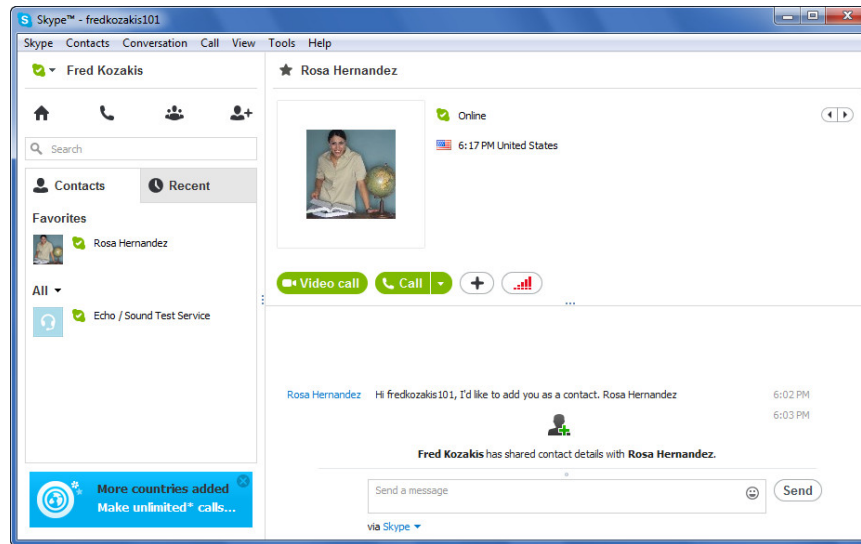


Figure 2-9: Adding Skype contact

10. Before proceeding, reduce the size of your screen by selecting **View | Compact View**. Close the window containing your lab partner's name in the title bar so that only the Skype compact window remains open. Many users prefer this view because the Skype window can be moved to the side of the Desktop while you accomplish other work.
11. Your Skype window should display your lab partner's account under Favorites and it should be indicated as Online by a checkmark next to your lab partner's name, as shown in Figure 2-10.

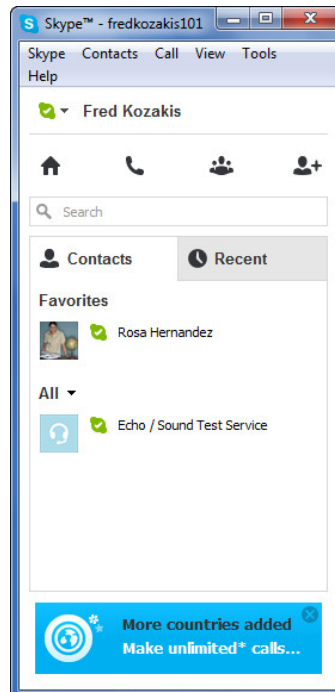


Figure 2-10: Compact Skype window with contact

12. Next, you will send instant messages. In the Skype window, double-click your online contact to open a conversation window. Type a brief message, and then press **ENTER**.

13. When you receive the message from your lab partner, Skype will play a sound, display a pop-up box on the status bar that contains the text of the message, and flash a message button in the taskbar.
14. Click the **Message** button (icon) in the taskbar to open a conversation window that displays the message. Type a response, and then press **ENTER**. This step sends a reply to your lab partner.
15. Experiment with Skype. Add other classmates as contacts. Explore the buttons and drop-down menu commands to see the options you can specify for the ways instant messaging will function on your system.
16. On the right side of the field in which you type messages, notice the Insert Emoticon button (the smiley-face icon). Click the **Insert Emoticon** button, then click an emoticon of your choice and press **ENTER**. Your conversation window should resemble Figure 2-11.

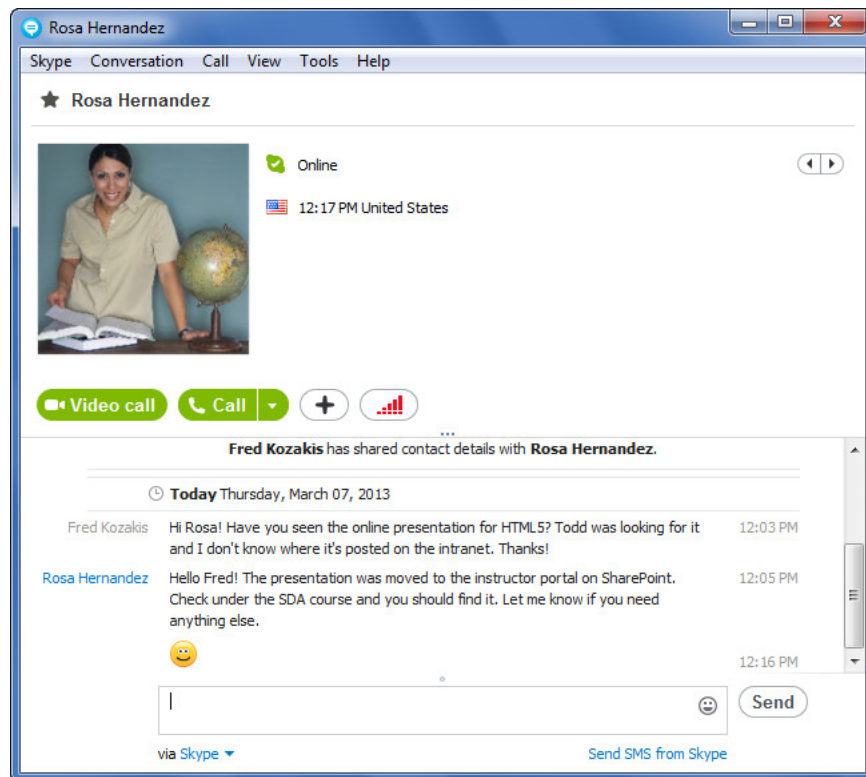


Figure 2-11: Skype conversation window

17. Close any open conversation windows.
18. At the top of the Skype window, select **Skype | Sign Out** to log off the instant messaging service.
19. Close the **Skype** window.

What is your opinion of instant messaging? Is it easy to use? Would you prefer to use instant messaging or the telephone? Can you see the ways that IM can be used in a business setting?



## CIW Online Resources – Movie Clips

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to watch a movie clip about this topic.

*Lesson 2: Hey, Hey the Gangs all Here.*

### OBJECTIVE

1.7.8: Text messaging and SMS

#### text messaging

A method of person-to-person communication in which users type short text messages from mobile phones.

## Text messaging (SMS)

**Text messaging** is a method of person-to-person communication in which users type short text messages from mobile phones. Text messaging uses the Short Message Service (SMS) communication protocol, which allows the sending and receiving of short text messages among mobile phones. "Short" text messages consist of messages that are no larger than 140 bytes. In English, this translates into 160 characters or fewer, including spaces (other languages with different character types, such as Chinese or Arabic, will have a different character limit). The act of sending text messages is also known simply as "texting" or "SMS."

### SMS gateways

SMS gateways are services that allow you to send text messages to an instant messaging (IM) service, phones that support SMS, the World Wide Web and desktop computers. SMS gateways allow you to interact with automated systems, rather than with another person only.

Today SMS is available on a wide range of networks. Several major providers include SMS services in their packages. For example, you can e-mail a text message to your mobile phone by entering your phone number followed by the @ sign followed by your provider's particular message service address. That is, the e-mail address would take the form *phonenumber@serviceprovider.com*.

#### NOTE:

"Short" text messages can be no larger than 140 bytes, or 160 seven-bit characters (the characters used in English, for example). Also, do not confuse SMS with Twitter "tweets." An SMS message has more characters than a tweet. An SMS message can have up to 160 characters. A tweet can have only 140 characters.

Table 2-1 lists message service addresses for several popular providers.

Table 2-1: SMS addresses for major U.S. mobile service providers

Provider	SMS Address
<b>T-Mobile</b>	phonenumber@tmomail.net
<b>Virgin Mobile</b>	phonenumber@vmobl.com
<b>AT&amp;T</b>	phonenumber@txt.att.net
<b>Sprint</b>	phonenumber@messaging.sprintpcs.com
<b>Verizon</b>	phonenumber@vtext.com

You can also browse several Web sites that offer tips on using SMS; and some Web sites (such as Google) offer free SMS services ([www.google.ca/mobile/sms/](http://www.google.ca/mobile/sms/)). The Google SMS site shows how to get driving directions, find out when a movie is playing or perform currency conversions on your mobile phone.

### Text message abbreviations

Because text messages must be short, texting has given rise to hundreds of abbreviations that are used so often they are now part of our daily lexicon. Following are some examples of common text message abbreviations:

- BRB — Be right back
- BTW — By the way

- COO — Cool
- IDC — I don't care
- IDK — I don't know
- HMU — Hit me up (contact me)
- KK – OK (message acknowledged)
- LOL — Laughing out loud
- PROPS — Proper respect and acknowledgement of skills or accomplishments
- TTYL — Talk to you later
- IMO — In my opinion
- SUP – What's up?
- TIA — Thanks in advance
- WBU — What about you?
- WDYMBT — What do you mean by that?
- WUT — What?

There are many Web sites that provide an extensive list of text message abbreviations. Examples of such sites are:

- txtDrop.com ([www.txtdrop.com/abbreviations.php](http://www.txtdrop.com/abbreviations.php)).
- PC.net (<http://pc.net/acronyms/>).
- NetLingo ([www.netlingo.com/acronyms.php](http://www.netlingo.com/acronyms.php)).

### **Text messaging culture**

Text messaging allows people to communicate and exchange information at will. Because of its real-time capability, text messaging invites a culture of participation. For example, on the television show "American Idol," viewers can choose who they want to see on the program by texting the show.

### **Text messaging and business**

Text messaging is becoming more and more common in business settings because it can be used to send alerts, confirm appointments or deliveries, and provide instant communication for myriad reasons. Because texting in business is becoming so common, regulations governing its use have arisen, especially in highly regulated industries such as health care, financial services, commodities trading and so forth. Companies want to be able to supervise and archive their employees' text messages. The security, confidentiality and reliability of SMS is also important. Many companies use Service Level Agreements (SLAs) to formally define an acceptable level of service for their SMS. The use of SLAs is a standard practice in the IT industry.

### **Text messaging etiquette**

Because text messaging has become so prevalent, you should follow proper text messaging etiquette to avoid annoying friends, family members and co-workers. Following is an informal list of text messaging etiquette techniques. These techniques are especially important in a business setting; less so for informal communications.

- Place your phone on vibrate mode when at work or in a quiet public location, such as a library or theater.

- Avoid texting people while they are at work or in class (or sleeping) because you may interfere with tasks they are trying to perform.
- Keep your messages short and to the point. If you need to write more than a short message, send an e-mail.
- Texting is meant to be informal; you should probably not convey important or serious information via a text message.
- As when writing an e-mail or instant message, pay attention to your tone.
- Keep the use of graphics such as "smiley faces" to a minimum to avoid cluttering your message.

Twitter is an online social networking service that allows users to send and receive other users' updates, known as tweets. In the following lab, you will use Twitter to send and receive online text messages. Suppose you are a high school senior and you want to be able to keep in contact with a close group of friends by providing updates of your activities. You can restrict delivery to only those who have signed up to receive them, thus ensuring that only your friends have access to your tweets, and you to theirs.



### Lab 2-3: Sending text messages using Twitter

**OBJECTIVE**  
1.7.8: Text  
messaging and SMS

In this lab, you will create a Twitter account, send a text message to a classmate, and follow a live Twitter thread. A lab partner is required for this lab so you can send and respond to tweets. The actual steps will vary depending on changes to the Twitter site.

1. **Browser:** Go to <http://twitter.com/> to display the Twitter home page.
2. Click the **Sign up for Twitter** button to sign up for a Twitter account. Fill out the Signup form. Use the same Web-based e-mail account you used to set up the Skype account in the previous lab. Click the **Create My Account** button.
3. The Welcome screen will appear. Click **Next**.
4. Follow the instructions on the next two Web pages to select people and groups to follow.
5. On the Find People You Know page, you can click one of the available services to automatically load contact information you stored for that service. This process can save time because you will not need to enter each Twitter contact manually. For purposes of this lab, click **Skip** at the bottom of the list.

*Note: As of this writing, the available services from which you can import contacts are Gmail, Yahoo!, Hotmail and AOL. In the previous lab, you created a contact list in Skype, which is not a service to which you can connect via Twitter.*

6. The "Add character" page will appear. Upload a photo and describe yourself. Click **Done** when finished or click **Skip**. Your Twitter home page will appear.
7. In the **Compose new Tweet...** field, enter a message of your choice, then click the **Tweet** button. Click the **Tweets** link in the upper-left portion of the page. Your message should appear in the right-hand pane of the home page.
8. Select the **#Discover** menu at the top of the page. Click the **Find Friends** link.



9. On the "Find friends" page, in the Search box at the top of the page, enter the name (first name and last name) or user name of your lab partner. Twitter uses the "@" symbol before user names, so be sure to include it. Your lab partner's Twitter account should appear.
10. Click your lab partner's Twitter account link. You should see a message, or tweet, from your lab partner. Click the **Follow** button, then click the drop-down menu arrow to the right of the Follow button. The drop-down menu is shown in Figure 2-12.

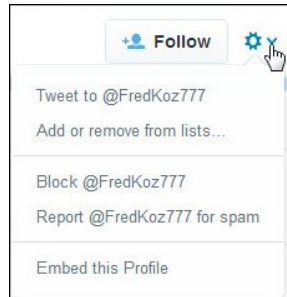


Figure 2-12: Responding to your lab partner on Twitter

11. Select **Tweet to @username** (the user name is your lab partner's user name). Enter a message, called a "Mention," to your lab partner and click the **Tweet** button.
12. Go to your Twitter home page and click the **Tweets** link. Notice that the reply you sent to your lab partner appears. You can text back and forth by placing your mouse over the tweet and clicking the **Reply** arrow icon that appears.
13. Click the **Reply** arrow icon, enter a reply message to your lab partner, and then click the **Tweet** button. You should see your reply.
14. Go to your Twitter home page. Click the **View Conversation** link to view all reply entries in the conversation.
15. To follow Twitter users or groups, simply click the **Follow** link or button that appears next to their profile. For example, search for **United Nations** using the Search box at the top of the screen. The results will appear similar to Figure 2-13.

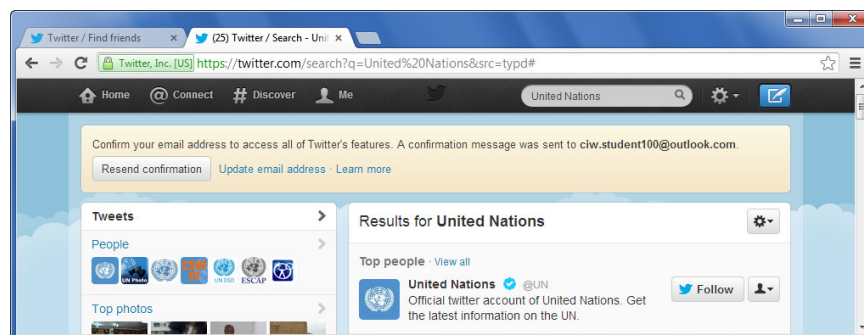


Figure 2-13: Following United Nations on Twitter

16. Click the **Follow** button and United Nations tweets will appear on your home page. To unfollow users, hover your mouse over the "Following" button (this button appears when you are following a user). The button will change to "Unfollow." Click **Unfollow** and you will no longer receive tweets from the user.

17. Explore Twitter. When you are finished exploring, sign out of Twitter by clicking the studded-circle icon at the top of the screen. Select **Sign Out**.

What is your opinion of text messaging? Is it easy to use? Would you prefer to use text messaging or instant messaging? Can you see the ways it can be used in a business setting?

**OBJECTIVE**  
1.7.3: Remote  
assistance

## Windows Remote Assistance

Windows Remote Assistance is a service that allows a user to seek assistance from another person in a remote location. This service involves allowing a trusted person at the remote location to connect to your computer and view your screen.

Remote Assistance is used in conjunction with Skype instant messaging (or e-mail), enabling the remote person to offer real-time assistance via instant messaging. When you accept a connection from a remote assistant, your Desktop displays on the remote computer. Your remote partner can request to take control of your computer. However, you are free to decline any and all help. Even if you allow your remote partner to take control, you can halt remote control at any time by disconnecting. When the remote person performs a task, the results will display on both your computer and the remote station, allowing for instant feedback. Both computers must be running Windows Vista or newer in order to use Remote Assistance.

In the following lab, you will use Windows Remote Assistance to control a remote computer. Suppose you are the help desk technician at your company, and you receive multiple requests per day about various operating system features and functions. You can use Windows Remote Assistance to provide real-time assistance to users without leaving your desk.



### Lab 2-4 Using Windows Remote Assistance

In this lab, you will use Windows Remote Assistance to control a remote computer. A lab partner is required for this lab. One partner's system will function as the server (the computer that will be controlled), and the other will function as the client (the computer from which commands will be issued). Decide the role each of you will take.

1. **Both server and client computer:** Log on to **Skype** so that you and your lab partner can use instant messaging.
2. **Server computer:** Click the **Start** button, then in the "Search programs and files" field, enter **Windows Remote Assistance** to display the window shown in Figure 2-14. This step begins the process of inviting a trusted person to help you.

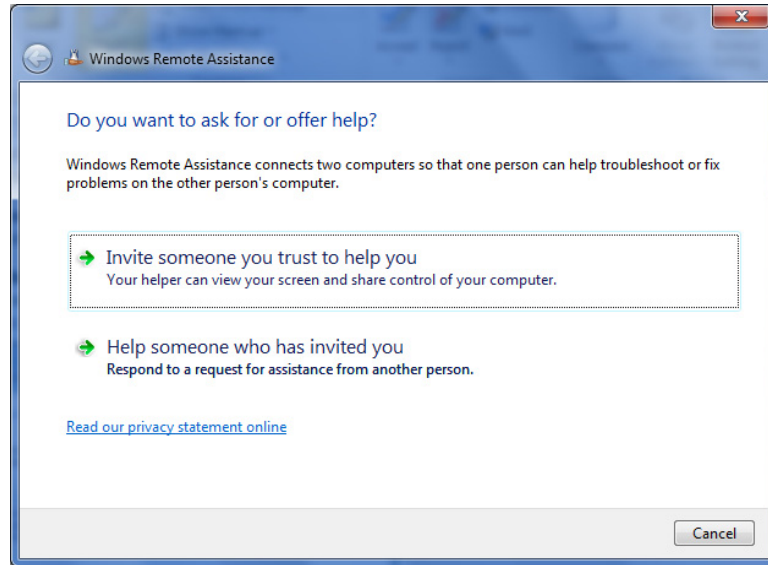


Figure 2-14: Windows Remote Assistance

3. **Server computer:** Click **Invite Someone You Trust To Help You**. You will be prompted to use e-mail to send an invitation or to save the invitation as a file in order to send the invitation via instant messaging or Web-based e-mail.
4. **Server computer:** Click **Save This Invitation As A File**. You will be prompted to enter a path and file name. Keep the default path (which should be your Desktop) and file name (*Invitation.msrcIncident*), then click **Save**. A smaller Windows Remote Assistance window will appear with a message indicating that it is waiting for an incoming connection, as shown in Figure 2-15. Notice that you are told to give your helper the invitation file and password. The person you are inviting must type this password to gain access to your system.

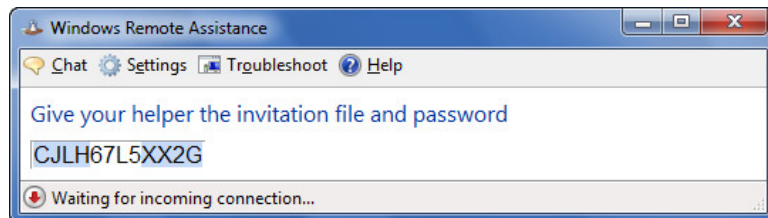


Figure 2-15: Waiting for incoming connection — Windows Remote Assistance

5. **Server computer:** Send an instant message to your lab partner. Include the file **Invitation.msrcIncident** that you created in Step 4 as an attachment, and also include the password (e.g., *CJLH67L5XX2G*).

*Note: Ensure that you include the password in your message. Your lab partner (the client computer) will not be able to connect to your computer (the server computer) without the password.*

6. **Client computer:** Open the instant message that your partner just sent you containing the *Invitation.msrcIncident* file. Click the **Save As** button, then click **OK** in the message box that appears informing you that files may contain harmful viruses. Specify to save the file to your Desktop, then click **Save**. Click the **Open File** button, then click **OK** to open the file attachment.

- 7. Client computer:** You will now be prompted to enter the password supplied by your lab partner. Type the password (e.g., **CJLH67L5XX2G**) and click **OK**. The Windows Remote Assistance window will open. Notice the message in the lower-left corner informing you that you are waiting to be accepted.
- 8. Server computer:** A dialog box appears prompting you to allow your lab partner to connect to your computer. Click **Yes**. You have now established a remote connection with the client computer, and the server computer's Desktop appears in the Windows Remote Assistance window on the client computer. At this point, your lab partner (the client computer) can view your screen but cannot control your system.
- 9. Client computer:** Click the **Request Control** button in the toolbar at the top of the screen to ask your partner if you can share control of his or her Desktop. All requests for making connections and taking control must be accepted; you cannot control the server computer without your lab partner's consent. Also, control may be rescinded at any time by the server computer.
- 10. Server computer:** A dialog box appears prompting you to allow your lab partner to share control of your Desktop. Click **Yes**. Now the client computer can share control of your Desktop.
- 11. Server computer:** Send an instant message to your lab partner asking how to accomplish a particular task on your computer (such as how to change your Desktop wallpaper).
- 12. Client computer:** Now that your computer has control of the server computer, perform the steps in the Windows Remote Assistance screen to change the wallpaper of the server computer's Desktop. When you are finished, the server computer's Desktop will display the new wallpaper.
- 13. Server computer:** Notice that the Windows Remote Assistance window includes a command that allows you to stop your remote partner's control of your system at any time.
- 14. Server computer:** Click the **Stop Sharing** button in the Windows Remote Assistance window. This action terminates the connection. At this point, you may send another invitation for someone to help you, or close Windows Remote Assistance. Close the **Windows Remote Assistance** window.
- 15. Client computer:** Notice that the message "Not Connected" appears in the lower-left corner of your Windows Remote Assistance screen. This is because the server computer terminated your connection in Step 14.
- 16. Client computer:** Close Windows Remote Assistance.
- 17. Both server and client computer:** Close all open windows.

**NOTE:**

As the client computer performs the steps to change the Desktop wallpaper, instruct the server computer to watch his or her screen carefully. The server computer will be able to see each step as it is being executed by the client computer.

Later in this course, you will use TightVNC remote administration and Remote Desktop Connection to gain remote access to another computer. Now that you have used Windows Remote Assistance, what are the strengths and weaknesses of the product? Would it be worth implementing at an organization?

**OBJECTIVE**

## 1.19.1: Blogging

**blog**

Short for "Web log."  
A collection of personal thoughts posted on a public Web site. Blogging is the act of adding entries to a blog.

## Bloggging

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A Web log, or **blog**, is a collection of personal thoughts posted on a public Web site. A blog is essentially an electronic journal or public diary. Blogs are an example of a Web 2.0 methodology that emphasizes user interaction. The act of adding to a blog is known as blogging.

Following are attributes of a common blog entry:

- It consists of brief, informal thoughts focused on a specific topic.
- It reflects the personality of the author in a unique way.
- It can contain links to other authors or sites.
- It is written in chronological order and commonly displayed in reverse chronological order.

Some individuals add to their blogs daily, whereas others add to blogs only when moved by a particular event or issue. Blog postings are mainly textual but can include images, photos, links, video and audio. The postings are archived by date and sometimes by author or by category. By reading and discussing each other's posts, bloggers form a massive network that can influence national media and policy makers.

### Personal and group blogs

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Although blogging began as an expression of private feelings and events, community blogs have also become popular. In a community blog, all participants express their perspectives without any attempt at coming to a consensus. Group blogs can be further subdivided into political, corporate and educational blogs. The collective community of all blogs is known as the blogosphere. The mainstream media can use discussions "in the blogosphere" to gauge public opinion about various issues.

Many people look forward to reading the next installment of a blog. Blogs have become a form of intellectual stimulation as well as entertainment. Many blogs provide an opportunity to collaborate and interact with the participants on the Web site.

In the educational arena, blogging is useful for students because it is a "doing" activity. Through blogging, students can get involved in social networking and Web design, and it encourages them to think about writing for an audience.

Because anyone can write anything in a blog, there are those that see blogging as a way to circumvent the "filter" of acceptable journalism and publish information that can be misleading, libelous or false. Some critics maintain that bloggers do not respect the copyrighted material of others or the role of the mass media in presenting credible news.

### Blog sites

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Blog sites are becoming more popular and numerous. Although some blogs are personal, many are dedicated to professional interests, art, literature and so forth.

You can search for blogs using Web search engines such as Google or Yahoo!, or you can explore Web log directories such as the ones in the following list. These sites are search engines dedicated to finding blogs of various individuals and groups:

- <http://portal.eatonweb.com>
- [www.google.com/blogsearch](http://www.google.com/blogsearch)

- [www.technorati.com](http://www.technorati.com)
- [www.blogit.com/Blogs](http://www.blogit.com/Blogs)

Blog directories are becoming available all over the Web, and many categorize blogs by subject matter, similar to the way newsgroups are categorized. Some blog sites you might want to visit include the following:

- **Google Blogger** ([www.blogger.com](http://www.blogger.com)) — a common blog site acquired by Google.
- **Slashdot** (<http://slashdot.org/>) — a technology news Web site that provides articles about current affairs. User-submitted articles are subject to an editorial process before being posted to the site.
- **Lifehacker** (<http://lifehacker.com/>) — a blog about Windows, OS X and Linux software, and time-saving productivity tips and tricks (known as life hacks).
- **TypePad** ([www.typepad.com](http://www.typepad.com)) — a blogging service that is designed for non-technical users.
- **WordPress** (<http://wordpress.org/>) — an open-source blog-publishing application that focuses on aesthetics, Web standards and usability.
- **ars technica** (<http://arstechnica.com>) — a technology news Web site whose articles concentrate on technology, science and gaming.
- **Fark** ([www.fark.com](http://www.fark.com)) — a community blog site that allows users to comment on various news articles.
- **LiveJournal** ([www.livejournal.com](http://www.livejournal.com)) — a community blog site that has many social networking features.
- **Xanga** ([www.xanga.com](http://www.xanga.com)) — a Web site that hosts blogs, photo-sharing and other social networking features.
- **Facebook** ([www.facebook.com](http://www.facebook.com)) — a social networking Web site that includes blogging among its many features.

## Creating a blog

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Creating your own blog site is a relatively straightforward process. First you select the service on which to host your blog and you create an account. Then, you begin writing and posting your entries. Once your blog site is set up, you and others can post entries to it to share your thoughts and opinions. Following are some tips to consider as you write blog entries:

- Target an audience about which you know.
- Create a biography — your audience will want to know if you represent them.
- Write about an event or topic that is relevant to you.
- Write as if you were someone in your target audience.
- Use clear headlines.
- Use short, concise sentences.
- Focus on one topic per blog.
- Check your blog entry for spelling and grammar mistakes before posting it.

- Try to post blogs on a regular basis.
- Employ referential writing — include links to other sites and blogs.

The following sites provide blog-writing tips to increase your blog's readability and usability. Although the articles are older, they are still completely relevant to blogging today.

- **Top 10 Blog Writing Tips** — <http://website101.com/RSS-Blogs-Blogging/blog-writing-tips.html>
- **Call for a Bloggers Code of Conduct** — [http://radar.oreilly.com/archives/2007/03/call\\_for\\_a\\_blog\\_1.html](http://radar.oreilly.com/archives/2007/03/call_for_a_blog_1.html)
- **Weblog Usability: The Top Ten Design Mistakes** — [www.useit.com/alertbox/weblogs.html](http://www.useit.com/alertbox/weblogs.html)

In the following lab, you will create a blog. Suppose you are a high school senior and are researching various universities that you think you might want to attend. You decide to create a blog site to post your thoughts and solicit opinions from others who may be considering the same schools.



### Lab 2-5: Creating a blog

In this lab, you will create your own blog site with Google Blogger and respond to a classmate's blog site. A lab partner is required for this lab so you can access each other's sites.

1. Go to **[www.blogger.com](http://www.blogger.com)** to display the Blogger home page. Sign in using your Google account (you should have this information from the Google account you created in a previous lesson). If not, create a Google account. You are responsible for your account.
2. Click **Continue To Blogger**, then click the **New Blog** link. The Create a New Blog screen appears. Enter a blog title of your choice, then enter a blog address. The blog address is the URL that will be used by visitors to access your blog. The blog address will take the form *http://<blog\_address\_you\_specify>.blogspot.com*.

*Note: You can use the **Check Availability** link to ensure that the blog address you request is available.*

**NOTE:**

You can change your template or create a custom template once your blog is set up.

3. Choose a template by scrolling through the list of templates, selecting a template of your choice, then clicking the **Create Blog** link.
4. Click the **Start Posting** link to open a Compose window, in which you write and post a blog entry. Enter any text you want into the Compose window. For example, you could blog about a CIW topic of interest. Your Compose window should resemble Figure 2-16.

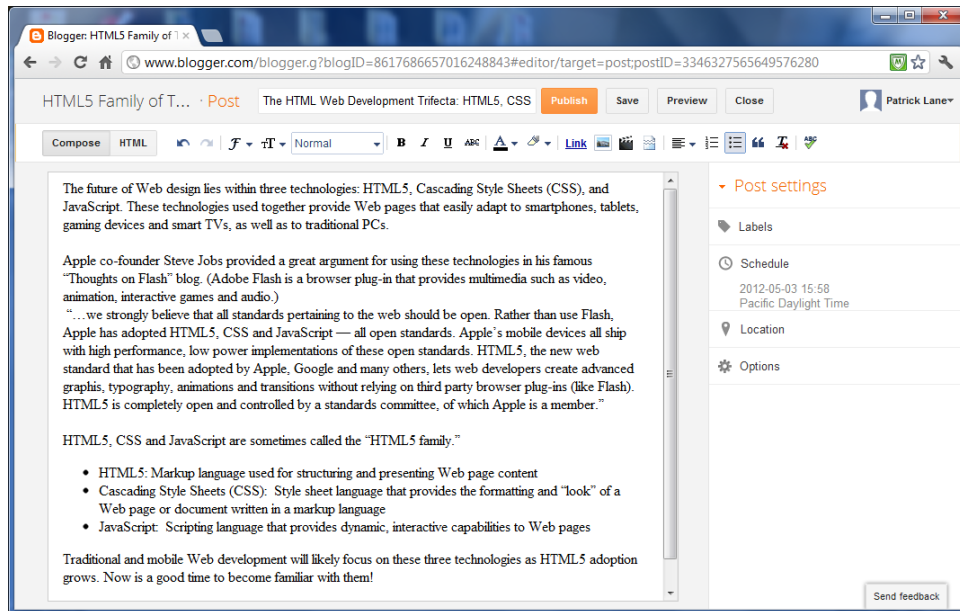


Figure 2-16: Compose window — Blogger.com

5. When you are finished, click the **Publish** link to post your blog entry. In the Share On Google+ dialog box that appears, click **Cancel**. Click the **View Blog** link to view your entry in a new window. Notice that your posted blog appears in the template that you selected in Step 3. Your screen should resemble Figure 2-17.

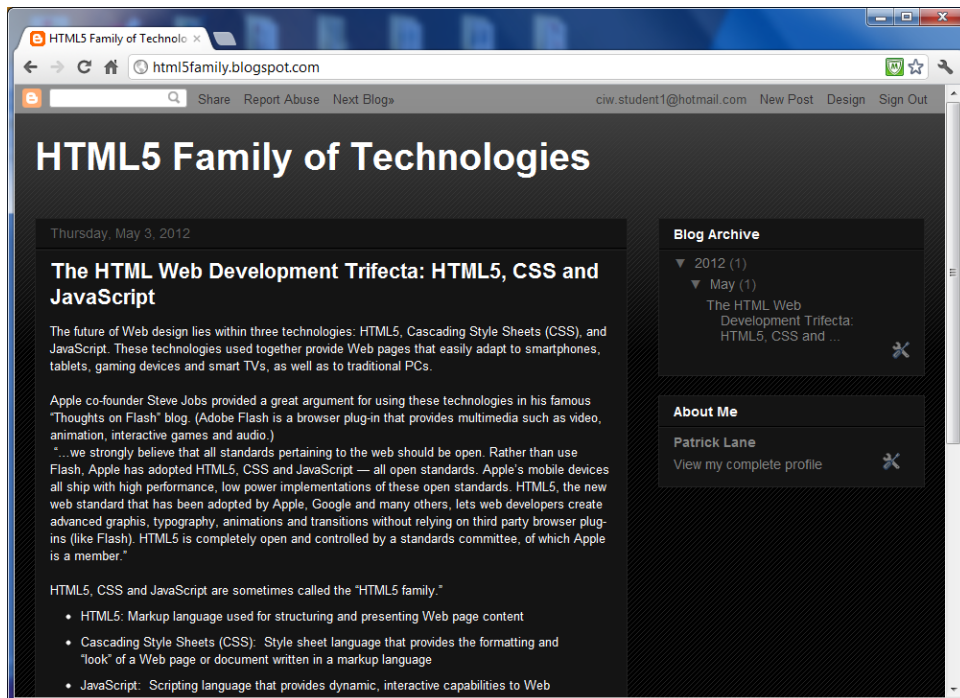


Figure 2-17: Posted blog entry in template

6. Share your blog address with your lab partner, then enter your lab partner's blog address in your browser. Your lab partner's blog site will appear.



7. Read your lab partner's blog entry. Then click the **No Comments** link at the end of his or her post. The Post A Comment field will appear, in which you can post a response to the blog entry.
8. Enter any text you want into the Post A Comment field, then click the **Publish** button. You will be prompted by a CAPTCHA to enter word-verification text. Enter the displayed text and click **Publish** to post your comment to your partner's blog entry.
9. Refresh your screen and click the **1 Comment** link. You should now see the comment that your lab partner posted in response to your blog entry. Your screen should resemble Figure 2-18.

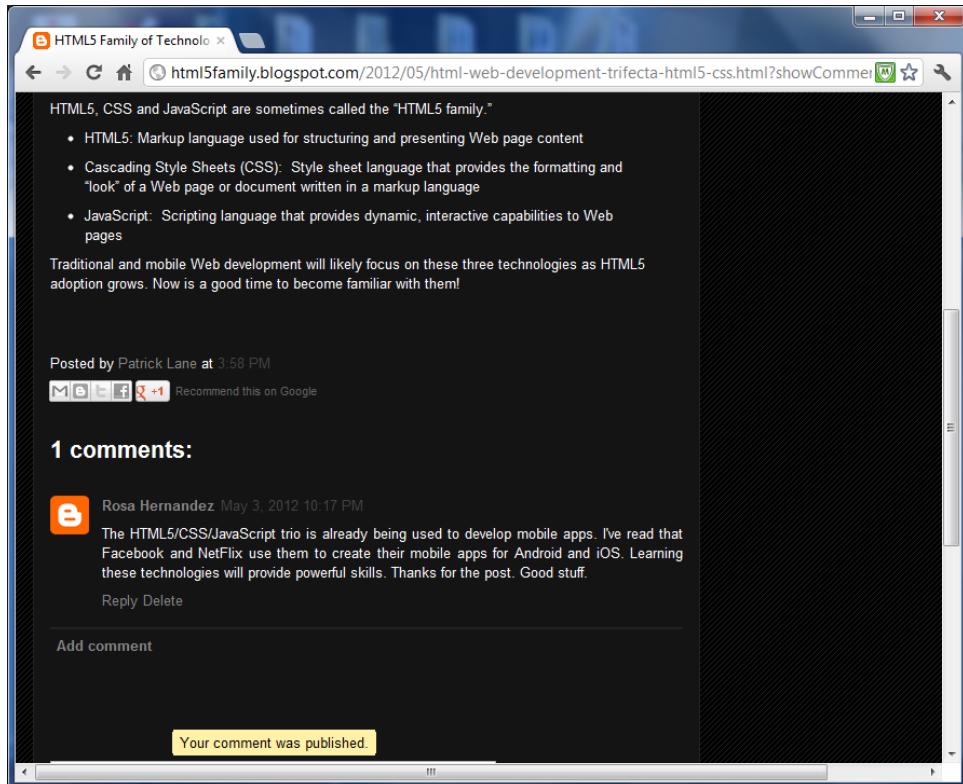


Figure 2-18: Posted comment entry

10. In the upper-right corner of the screen, click the **Sign Out** link to sign out of Google.
11. Close your browser.

What is your opinion of Blogger? Was it easy to set up your own blog site? Was the interface intuitive enough for you to easily navigate and communicate with other users?

## Blogging and trackbacks

### trackback

A method by which a blogger receives notification when other bloggers link to his or her blog entry.

Bloggers can use the **trackback** technique to be notified when other bloggers link to their entries. When a blogger writes an entry in response to another blog or refers to an entry found at another blog, the original blog can receive a trackback "ping." Bloggers typically display summaries of, and links to, all responses to the original entry. The trackback ping lets the recipient know that another blogger has responded to their entry and the entry has been added to their blog thread. With trackbacking, bloggers can view all entries in response to their original entry and carry on a conversation with respondents.

Not all blog sites allow trackbacks. For example, instead of using trackbacks, Blogger ([www.blogger.com](http://www.blogger.com)) provides backlinks (incoming links to a blog) that enable users to show links between blog entries through Google's search infrastructure.

Visit <http://cruftbox.com/cruft/docs/trackback.html> for information about trackbacks and how to use them.

## Blogging and microformats

Web pages consist of rich content encased in structured code, such as HTML and XML. In order for bloggers to refer to Web site content in their posts, they must direct readers to particular Web page URLs. An emerging technology known as microformats is now making it possible for the Web site content to be reused and read in other formats so that it is more accessible to users, such as in blogs.

### microformat

A data format that adds human-readable metadata to existing code so that the data can be processed by other software.

**Microformats** are data formats that add human-readable metadata to existing code so that the data can be processed by other software. The use of microformats allows bloggers to incorporate information from Web sites into their blog entries without making it necessary for the reader to visit the Web site. Initially, the main drawback to using microformats was that the blogger needed to possess programming knowledge and skills to create the microformat instructions to integrate Web sites with blog posts. However, Firefox version 3 (and higher) and Internet Explorer version 8 (and higher) include native support for microformats.



### CIW Online Resources – Online Exercise

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to complete an interactive exercise that will reinforce what you have learned about this topic.

*Exercise 2-1: Modern Web technologies*

## Communicating Effectively over the Internet

Just as there are various guidelines for using e-mail in a professional and productive manner, there are points to consider when using other Internet services for communication.

### OBJECTIVE

1.8.4: Effective messages

### Creating effective messages

When sending e-mail or instant messages, or posting messages to newsgroups, be sure to create messages that are pertinent, appropriate and brief. Be certain that you have communicated your ideas clearly and concisely. Sending a lengthy message takes up other people's time, and many recipients find long messages irritating and difficult to follow.

Including an e-mail thread (a record of the discussion) can be helpful when sending messages back and forth. If the information in the thread is no longer applicable, consider starting a new thread to continue a discussion.

**OBJECTIVE**

1.8.1: Etiquette for Internet-based communication

## Netiquette

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The term netiquette has been coined to encourage common sense and politeness, and to establish general rules for Internet etiquette. These guidelines include the following:

- Use business language in all work-related messages.
- Remember that messages or posts have permanence and may be printed or forwarded to other people.
- Check your spelling and proofread your message before sending or posting it.
- Consider that typing in all capital letters connotes shouting or anger.
- Remember that readers do not have the benefit of tone of voice and facial clues to help understand the intended meaning or tone of your messages.
- Consider that instant messages can display in pop-up boxes on the recipient's computer status bar. Therefore, messages should be kept professional and appropriate while at work.
- Respond immediately to messages and posts sent to you, and think clearly about what you write.
- Remember that using emoticons in e-mail messages or newsgroup postings is not considered a professional practice.
- Consider that common Internet acronyms and abbreviations, such as LOL (Laughing Out Loud) or BRB (Be Right Back), may be unfamiliar to some people.

**OBJECTIVE**

1.8.2: Ethical issues for Internet-based communication

## Internet ethics

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The nature of the Internet makes possible many exciting capabilities. However, it also makes possible some practices that may be questionable, unethical or even illegal. Your behavior online should reflect the same level of integrity with which you conduct yourself in face-to-face dealings with people and businesses.

### **Internet communication**

Internet technology allows us to communicate on a personal level with people we may not know. The ethical issues that apply to face-to-face communication also apply to Internet-based communications. Consider the following:

- Online chat and instant messaging sessions are not secure. Never send credit card or password information to another user.
- Instant messaging and chat rooms make communication easy and anonymous. Remember that when you are in an online chat room with other users whom you do not know personally, you only know what they choose to tell you (which may be true or false). Do not provide personal information, such as your Social Security number or your address, to unknown users.
- You should not ask other users to divulge personal information via these sessions.
- Some people like to adopt online personalities that are different from the way they act face-to-face. If you are in a chat session, are you required to tell only the truth? Are you required to be yourself?
- Parents and older siblings should warn children carefully about the dangers of online chat. Predators lurk on the Internet. Children should never disclose their full names, ages, addresses or school names to people they do not know personally.

## Downloadable software and content

As you have also learned in this lesson, you can use various Internet services to download freeware, shareware and other files from FTP servers and personal systems in peer-to-peer networks. You should consider the following points when using these Internet services:

- Shareware is not free. You can download it for free and try it; if you like it and intend to keep using it, you are expected to forward the indicated fee.
- Copyright laws protect original works of authorship online as well as in print. Works of authorship include literary works; computer programs; musical works; pictorial, graphical and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works. Downloading songs and movies from the Internet or a peer-to-peer network is an illegal use of copyrighted information.
- Plagiarizing online content (copying someone else's written work and presenting it as your own) is illegal and unethical, just as it is with printed books. Using information that you find on the Web in research papers is permissible if you cite the work properly, just as you must do with material you find in printed publications.
- If you publish your own Web page or otherwise make information available via the Internet, be careful about its content. Any writing or picture you publish that subjects another person to public contempt or ridicule can be considered libel and may make you vulnerable to a lawsuit or prosecution.

Software & Information Industry Association (SIIA) ([www.sii.net](http://www.sii.net)) is an industry group that polices the Internet for software piracy. SIIA provides anti-piracy materials for corporations and individuals. Banners and images, such as the banner shown in Figure 2-19, can be downloaded at the SIIA Web site.



Figure 2-19: SIIA piracy banner

**OBJECTIVE**  
1.8.3: Sexual harassment

## Avoiding harassment

Sending threatening e-mail messages, text messages or instant messages is illegal, just as if the threats were made via telephone. Use good judgment when composing a message. E-mail is permanent, and the text of an instant message or text message can be retrieved.

**NOTE:**  
You should never send NSFW-type messages from your workplace or school. Not only is it a misuse of company/school property, it can potentially be a violation of sexual harassment policies.

Keep in mind that any messages you send, especially while at work or at school, should always be "safe for work" (SFW). SFW means that the content of your message can safely be viewed by anyone and does not contain any controversial, sexually explicit, profane or otherwise inappropriate content. In fact, if your message header or text area contains a word or phrase that could potentially be misinterpreted to be non-work-safe, you may even want to include "SFW" in the header. For example, you may send a message that deals with a sexual harassment lawsuit and type "Sex Case" as the message header. There are some who may take offense at the header text, without realizing what the content of the message is about.

It is also possible that you may receive a message containing an NSFW tag in the header. NSFW stands for "not safe for work" and can be used if the content of the message does contain non-work-related or potentially inappropriate content. NSFW may be relevant for

those individuals who send personal messages from their workplace or school, knowing that policies are in place prohibiting such content.

Sometimes harassment is not as obvious as sending a threat. Some people may take offense at material you think is humorous. Think carefully before forwarding jokes or cartoons. Remember that your recipients may forward your jokes non-judiciously to others, who in turn might take offense.

Sending instant messages to someone who does not want to be contacted can also be considered a form of harassment. Although users can set their status to offline and block messages from certain people, not all users know how to use these options. Some IM programs, such as AOL Instant Messenger, provide tools for recipients to issue warnings to users who send unwanted correspondence. Receiving warnings can inhibit your ability to use instant messaging services.

Although sending jokes via e-mail is generally an accepted practice, remember that not everyone wants to receive multiple forwarded jokes a day from you. Ask your intended recipients whether they want to receive such communications regularly. If not, be courteous and respect requests that you do not send such messages.

**OBJECTIVE**

1.8.5: Convergence and unified communications technologies

**unified communications (UC)**

A business trend that seeks to simplify and integrate all forms of communication. Also, a set of technologies that enable voice to be converted into text, and vice versa.

**convergence**

The integration of telephony and data technologies.

## Convergence and Unified Communications Technologies

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Today's communication networks need robust and compatible platforms to meet our global society's changing needs. **Unified communications (UC)** is a business trend that seeks to simplify and integrate all forms of communication. UC enables a user to send a message on one medium and receive it on another. For example, a user can receive a voice mail message, then use a UC program to read it in their e-mail inbox. The following examples are technologies and applications that implement UC technology principles:

- Convergence technology
- Voice over IP (VoIP)
- Call/contact centers
- Presencing
- Mobile computing
- Conversion of voice to text

### Convergence technology

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Businesses and telecommunications companies have traditionally used separate equipment, wiring and personnel to operate and maintain separate voice and data networks. As corporate and public users continue to gravitate toward teleconferencing and other multimedia applications, the current infrastructure will become a tremendous number of networks performing the same functions. This type of architecture is very costly, both to build and to maintain.

However, companies are looking for ways to access more services and utilize resources to their fullest potential. How can a multitude of networks be maintained and used efficiently in an evolving communications environment? The answer is network **convergence**.

Convergence technology is the integration of voice and data networks to create a unified means of exchanging and storing electronic information. This integration includes placing the voice network (telephony), the video network (television, satellite) and the Internet (rich media) onto common platforms. Rich media can consist of images, video and streaming voice.

Telephone companies, Internet Service Providers (ISPs) and manufacturers of data networking equipment (including companies that create software and hardware) now understand that they are in the information business, not simply in the telephony or data networking businesses.

## Voice over IP (VoIP)

### Voice over IP (VoIP)

A technology that converts voice into data packets for transmission over a packet-switched IP network. Allows the use of the Internet for real-time voice and video traffic.

**Voice over IP (VoIP)** is voice information delivered in digital form as packets of data using Internet Protocol (IP) instead of the traditional circuit-switched lines of the public switched telephone network (PSTN). VoIP is free for users if they already have Internet access, allowing them to avoid the tolls charged for using ordinary phone lines. VoIP is forcing telephone companies to offer consumers better deals in order to keep their business, and most local and long-distance providers, cable TV companies and ISPs now offer IP telephony services.

## Call centers and contact centers

### call center

A centralized office used for the purpose of processing a large volume of requests by phone.

A **call center** is a centralized office used for the purpose of processing a large volume of requests by phone. Traditionally, a call center has been a large, open workspace filled with workstations that each include a computer, a telephone and a headset, with one or more supervisor stations in the workspace. A typical call center is shown in Figure 2-20.



Figure 2-20: Typical call center

Companies use call centers to interact with their customers. Utilities companies, commercial banks and credit card companies are just a few examples of businesses that employ call centers. Telemarketing and collections efforts are often performed in call centers as well.

### contact center

A call center that allows consumers to contact agents via avenues other than by telephone.

When a call center allows for consumers to contact agents via avenues other than telephone (for example, through e-mail, fax, Web site, Web chat or instant messaging), it is referred to as a **contact center**.

Contact centers use one or more of the following components:

- Phone.
- Web — Customers visit a Web site and click an icon that either connects them to an agent (click-to-talk) or allows them to type in a number for a return call.
- E-mail — Customers request information via e-mail.
- Chat or instant messaging (IM) — Customers can visit a Web site and click an icon to open a chat window with an agent (click-to-chat).
- Texting — Customers request information via text messaging.

## Presencing

### presence

A status indicator that conveys a person's willingness and ability to engage in communications.

**Presence** information is a status indicator that conveys a person's willingness and ability to engage in communications. For example, when a user signs in to a social networking or instant messaging (IM) service, his status (e.g., online) is advertised (or published) to the people on his contacts list. A user's presence information, or presence state, is provided to a presence service via a network connection.

### Products and features

Most computing devices and applications can participate in presencing:

- Social networking apps
- Instant messaging apps
- Mobile phones
- Laptops, PCs, tablets and other computers
- Electronic calendars
- Home phones

A user may publish his availability (or unavailability) by selecting a particular status, such as "on the phone" or "out to lunch." The status informs his contacts about his availability and willingness to communicate. For example, if Mike is on Rina's contacts list, and Rina signs in to an instant messaging client but sets her status to "in a meeting," Mike can send an e-mail message to Rina instead of interrupting her meeting with an instant message or a phone call. In many cases, users can keep their presence private by choosing to appear offline, or by blocking certain contacts from seeing their presence state.

Presencing can also span different communication channels. Using a single sign-on, a user can automatically publish his presence on various communications fronts. Multiple Points of Presence (MPOP) is a term that describes how multiple communications devices (PCs, phones, etc.) can combine state to provide a multi-dimensional view of a user's availability status. For example, it may be possible to determine whether a user's mobile phone is on, or to see if her electronic calendar indicates that she is in a meeting or on vacation.

MPOP status can be used to direct incoming messages across all the devices that are available. For example, Rina sets her status to "out to lunch." If Mike tries to send her an instant message, that message may be routed as a text message to Rina's mobile phone.

### Collaboration

Presencing requires collaboration among a number of devices (for example, mobile phone, electronic calendar, instant messaging client) and the presence services with which each of them is connected. For presence to work with MPOP, multiple devices must be able to

intercommunicate, and the status information must be appropriately handled by all the connected presence services.

Within enterprises, private messaging servers offer the possibility of MPOP within a company or a specific work team.

### **Privacy concerns**

Presencing is being implemented more and more within the enterprise, making it possible to see who is available in the corporate network as soon as users sign on. This technology offers flexibility in setting up meetings and conference calls, and can eliminate the inefficiency of leaving voice mail or e-mail messages and waiting for a response.

Although it is efficient and convenient to use a single sign-on to authenticate once and gain access to all corporate resources to which you have access rights, that single sign-on can translate into MPOP, and that presence information can lead to privacy concerns. For example, when an employee takes a day off, but he still has his mobile phone on, he can be tracked down and interrupted. In the days when employees used pagers, those pagers could be turned off at the end of the day or over the weekend. Presence state, however, may be available all the time depending on how integrated the devices are.

### **Mobile computing**

**mobile computing**  
A person's ability to use technology while "on the go."

**Mobile computing** refers to a person's ability to use technology while "on the go." Devices that enable a user to engage in mobile computing include:

- Laptop computers.
- Mobile phones.
- Tablets.

These devices are useful because they are portable, can connect to each other via the Internet, allow data storage and contain enough processing power to perform tasks that you can also perform using your computer.

The very features that make mobile computing devices useful also make them a security risk to users when these devices contain proprietary or confidential data. Major features of mobile computing devices that can cause a risk to the user include:

- **Small size** — The devices can be easily misplaced, lost or stolen.
- **Weak user authentication mechanisms** — The user can disable authentication or it can be easily compromised.
- **Ease of interconnectedness** — If one device is compromised by an unauthorized user, it is possible that other connected devices can also be penetrated.

### **Converting voice to text**

Most people can speak much faster than they can type. If you want to dictate words instead of writing or typing them, software programs and online services are available that you can use to convert your voice to text.

You can use speech-recognition software programs to enable your voice to perform tasks such as creating and editing documents and e-mails, opening and closing applications, and controlling your mouse and Desktop. One example of such software is Dragon NaturallySpeaking ([www.nuance.com/dragon/index.htm](http://www.nuance.com/dragon/index.htm)).



Some available online services automatically convert mobile phone and voice mail calls to text. Others convert text messages to recorded voice notes. Additional services also make it possible to remind yourself of an event or appointment, deliver a blog post and so forth. Some popular voice-to-text conversion services include GotVoice ([www.spoken.com/gotvoice](http://www.spoken.com/gotvoice)) and various products by Nuance.



### CIW Online Resources – Online Exercise

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to complete an interactive exercise that will reinforce what you have learned about this topic.

*Exercise 2-2: Convergence and unified communications technologies*



### CIW Online Resources – Course Mastery

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to take the Course Mastery review of this lesson or lesson segment.

*IBA Lesson 2*

## Case Study

### Web 2.0 Travel Guide?

Katerina is planning to meet with her off-site product development staff for a weekend retreat in the Canadian Rockies. She wants to research various bed-and-breakfast establishments that can accommodate up to 12 people in separate rooms.

Katerina decides to create her own intranet site that will be available to her staff over the corporate intranet to solicit their feedback. She hopes to combine data from various sources to provide information that may not be available on any one Web site. She also wants her staff to be able to vote on potential retreat sites, and to read the blogged reviews, post their own reviews and attach them to those already tagged.

- First, Katerina visits Flickr ([www.flickr.com](http://www.flickr.com)) and finds a tagged gallery of bed-and-breakfast establishments in the Canadian Rockies with actual reviews that people have submitted about them.
- Next, she visits Google Maps (<http://maps.google.com>) and finds geographic information about each of the establishments she found in Flickr.

\* \* \*

As a class, discuss this scenario and answer the following questions.

- What can Katerina do with the information she found in Flickr and Google Maps? Can she use Web 2.0 technologies to connect the Flickr photos with geographic information from Google Maps?
- Do you think Katerina's intranet site will provide information that is useful to the product development staff? What other features can Katerina add to increase the site's usefulness?
- For what other department events or projects could Katerina use this intranet site?

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## Lesson Summary



### Application project

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Social networking has dramatically changed the relationship between producer and consumer on the Web. The following rules now apply in the Internet era:

- Consumers trust their social networks instead of sales and marketing pitches.
- Consumers have the power to make or break a business because they can pass along positive or negative comments about its products or services to a wide audience.
- Consumer-generated opinions and feedback have value to other consumers.
- Consumers are able to express their wants, needs and desires to a wide audience.

If your company conducts marketing and sales campaigns the "old-fashioned way," what pitfalls might it encounter? If your company puts out online advertising banners and participates in appropriate blogs, is that enough? How can your company use social networking to its advantage?

Open your browser and go to [www.insidecrm.com/features/50-social-sites-012808](http://www.insidecrm.com/features/50-social-sites-012808). How can you use the contents of this site to help your business navigate the waters of the Internet-era relationship between consumer and producer?



### Skills review

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In this lesson, you learned about Web 2.0 technologies including Ajax, wikis, folksonomy, Web feeds, podcasts, semantic Web, mashups, social networking, instant messaging, text messaging and blogging. You also learned about guidelines for communicating effectively over the Internet, and about unified communications technologies that seek to simplify and integrate all forms of communication.

Now that you have completed this lesson, you should be able to:

- ✓ 1.7.3: Use remote-assistance clients and servers, including Microsoft Remote Services.
- ✓ 1.7.4: Configure and use instant messaging clients.
- ✓ 1.7.6: Identify privacy concerns related to network communications (e.g., e-mail, instant messaging, P2P).
- ✓ 1.7.8: Identify the benefits and drawbacks of text messaging and Short Message Service (SMS) applications (e.g., mobile phone services, Twitter).
- ✓ 1.8.1: Define etiquette for Internet-based services and identify common communications aids.
- ✓ 1.8.2: Identify ethical issues when communicating with others using Internet-based technology.
- ✓ 1.8.3: Recognize and avoid sexual harassment.
- ✓ 1.8.4: Create pertinent, appropriate and brief messages.
- ✓ 1.8.5: Define convergence and unified communications technologies, including Voice over IP (VoIP), presencing, mobile computing, call/contact centers, conversion of voice to text.

- ✓ 1.19.1: Identify common elements of a blog (e.g., creating an entry, posting replies, common features of blogging services).
- ✓ 1.19.2: Define the concept of a mashup.
- ✓ 1.19.3: Distinguish between traditional categories and folksonomies.
- ✓ 1.19.4: Identify key elements of a wiki.
- ✓ 1.19.5: Identify elements of a news feed service (e.g., syndication, RSS-to-e-mail services, Feedblitz, Feedburner).
- ✓ 1.19.6: Define essential social networking terms, including crowdsourcing, social tagging (e.g., Delicious) and semantic Web, and identify social networking sites and resources (e.g., Facebook, Google+).



### CIW Practice Exams

Visit CIW Online at <http://education.Certification-Partners.com/CIW> to take the Practice Exams assessment covering the objectives in this lesson.

*IBA Objective 1.07 Review*

*IBA Objective 1.08 Review*

*IBA Objective 1.19 Review*

*Note that some objectives may be only partially covered in this lesson.*

## Lesson 2 Review

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1. To what does the term "Web 2.0" refer?

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2. How do semantic Web applications make accessible to computer applications the Web page data that was designed to be read by people?

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3. What is a blog?

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4. How can bloggers use trackbacks?

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5. What is convergence technology, and how does it help companies access more services and utilize resources to their fullest potential?

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