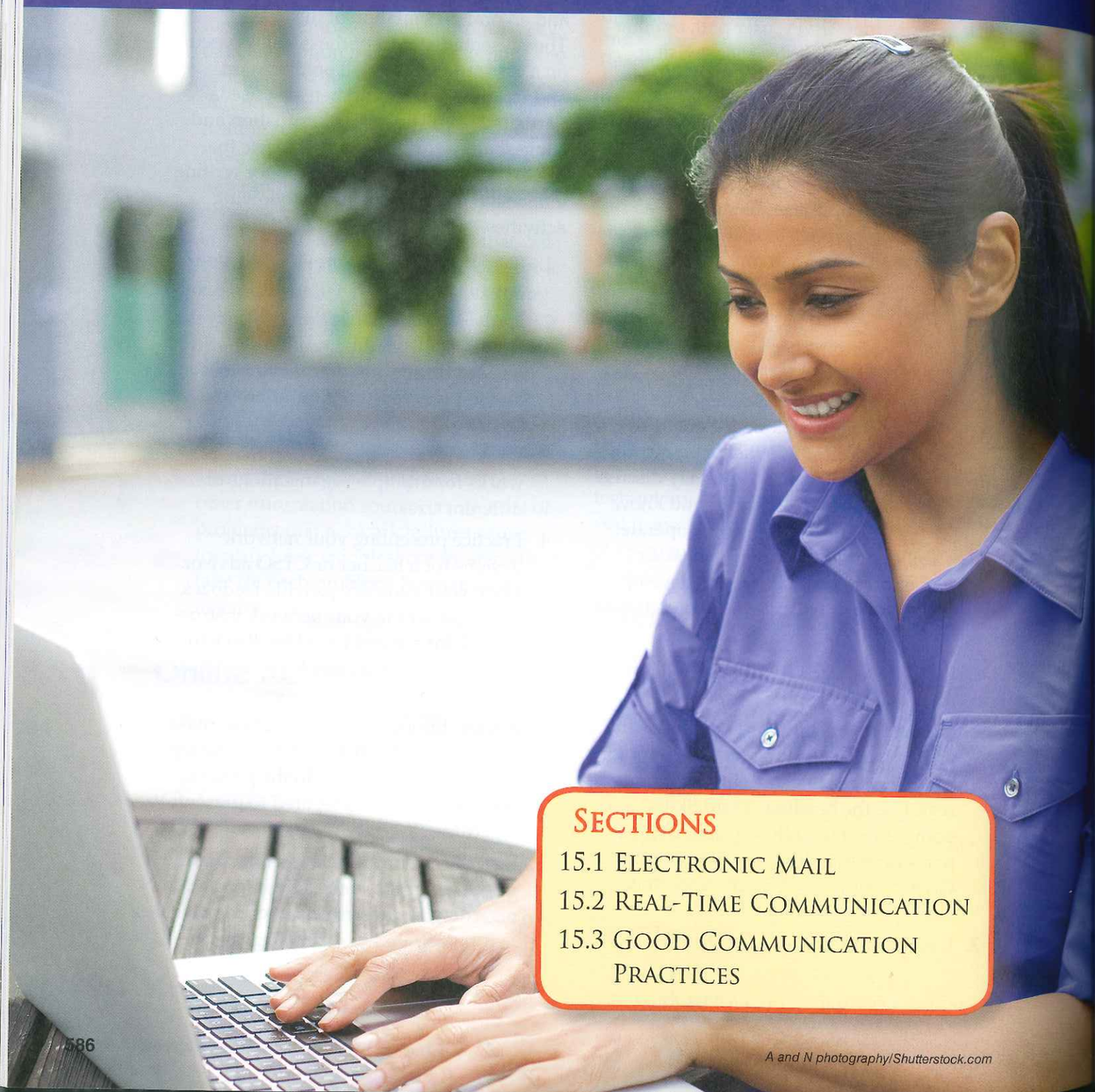
15 Electronic Communication and Collaboration



A and N photography/Shutterstock.com

Sections

Check Your IT IQ

Before you begin this chapter, see what you already know about information technology by scanning the QR code to take the chapter pretest. If you do not have a smartphone, visit www.g-wlearning.com.

The Pew Internet Project recently studied mobile technology and released these facts about American adults: 90 percent have a cell phone, 58 percent have a smartphone, 32 percent own an e-book reader, and 42 percent own a tablet computer. Today's telephones are small computers with more computing power than many desktop computers of just a few years ago. Messages are shared using smartphones, other mobile devices, and traditional computers via e-mail and social media. In addition to sharing messages, people use online collaboration tools to videoconference and share files in real time. This allows projects to be staffed by people around the world.

With the increased speed of conversations occurring via e-mail and social media, taking shortcuts in writing is more common. However, this can lead to a poor image of the sender. Additionally, without the inflection and tone of voice found in face-to-face encounters, communication can be misinterpreted. Video connections tend to minimize those troubles. This chapter explores facets of online communication and collaboration.

College and Career Readiness

Reading Prep. Arrange a study session to read the chapter aloud with a classmate. At the end of each section, discuss any words you do not know. Take notes of words you would like to discuss in class.

IC3 Certification Objectives

GS5

Computing Fundamentals

Domain 1.0 Mobile devices
- **Objective 1.1** Understand cellular phone concepts
- **Objective 1.4** Understand the use of hard-wired phones
- **Objective 1.5** Use of instant messaging
- **Objective 1.6** Know how to configure notifications

Domain 2.0 Hardware devices
- **Objective 2.10** Know the difference between cellular, Wi-Fi, and wired networks

Domain 5.0 File sharing
- **Objective 5.1** Understand file transfer options and characteristics

Domain 6.0 Cloud computing
- **Objective 6.4** Web apps vs. local apps

Living Online

Domain 3.0 E-mail clients
- **Objective 3.1** Identify e-mail applications

Domain 4.0 Calendaring
- **Objective 4.1** Know how to create events and appointments
- **Objective 4.2** Know how to share calendars
- **Objective 4.3** Know how to view multiple calendars
- **Objective 4.4** Understand how to subscribe to calendars

Domain 5.0 Social media
- **Objective 5.1** Understand what a digital identity is (identity on social media)
- **Objective 5.2** Recognize the difference of internal (school/business) vs. open media sites
- **Objective 5.3** Know what blogs, wikis, and forums are and how they are used
- **Objective 5.4** Know what cyberbullying is

Domain 6.0 Communication
- **Objective 6.1** Know the best tool for the various situations and scenarios
- **Objective 6.2** Know how to use SMS texting
- **Objective 6.3** Know how to use chat platforms
- **Objective 6.4** Understand options for and how to use distant/remote/individual learning technologies

Domain 7.0 Online conferencing
- **Objective 7.1** Understand and identify online conference offerings

Domain 8.0 Streaming
- **Objective 8.1** Understand what streaming is and how it works with devices

Domain 9.0 Digital principles/ethics/skills/citizenship
- **Objective 9.1** Understand the necessity of coping with change in technology
- **Objective 9.3** Understand an online identity management
- **Objective 9.4** Know the difference between personal vs. professional identity

GS4

Key Applications

Domain 6.0 Collaboration
- **Objective 6.1** Comments
- **Objective 6.2** Sharing files

Living Online

Domain 3.0 Digital communication
- **Objective 3.1** E-mail communication
- **Objective 3.2** Real-time communication

Domain 4.0 Digital citizenship
- **Objective 4.1** Communication standards

SECTION 15.1

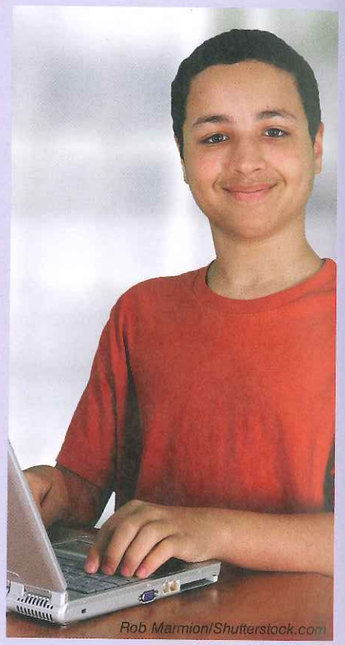
ELECTRONIC MAIL

Essential Question

What would society look like without e-mail?

Electronic mail is the process of trading digital messages from one person to one or more receivers. Early e-mail programs required both sender and receiver to be logged into the e-mail program at the same time. In function, this was more like text messaging than what today is thought of as e-mail. Now, e-mail messages are saved on a server and downloaded when a user opens the local e-mail program.

Electronic communication is supported by many devices and many software programs. Today, electronic communication is outpacing telephony, which was once the most popular method for communication between people at a distance. There are two parts to the process of sending and receiving e-mail: a client e-mail program and a server-side e-mail program. This section explores the technology of e-mail, its applications, and its features.



Rob Marmion/Shutterstock.com

TERMS

- address book
- archiving
- auto-respond option
- contact group
- credential
- digital citizenship
- e-mail client
- e-mail server
- Internet message access protocol (IMAP)
- junk e-mail
- message header
- netiquette
- out-of-office message
- post office protocol (POP)
- simple mail transfer protocol (SMTP)
- spam
- username

LEARNING GOALS

After completing this section, you will be able to:

- Discuss various e-mail technologies.
- Describe typical e-mail account settings.
- Explain appropriate e-mail use.
- Manage e-mail communication.

E-mail Technologies

GS5 Living Online 6.1.1

In the early days of the Internet, while using the FTP to send files between networks, Ray Tomlinson thought it would be nice to send a text message describing what was being transferred. To do this, he created the first electronic mail program. Electronic mail, today known as *e-mail*, is communication sent to a computer address where the message is stored to be read at a later time by the recipient.

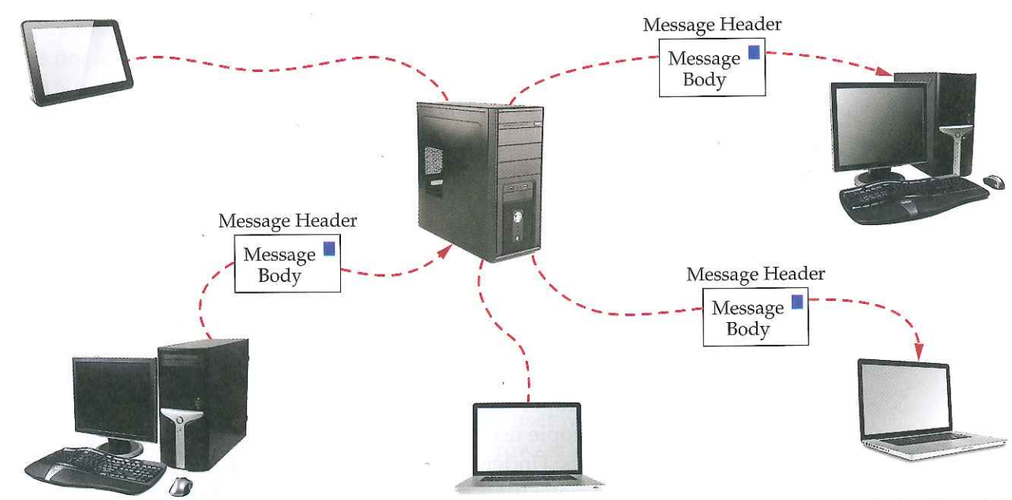
The **e-mail client** is the program used to create and send the message. When the message is sent from an e-mail client program, it ends up on the e-mail host or server, as shown in Figure 15-1. The **e-mail server** handles the storing and delivery of the message. The message is stored there and a copy is forwarded to the recipient when that user opens his or her e-mail client. The message is stored on the client device until the user deletes it. The copy on the server is not deleted.

E-mail Message

An e-mail message has three components:

- message body
- message header
- message envelope

The *message body* contains the text of the message itself. The **message header** contains a variety of information necessary to ensure the proper delivery of the message. Items such as the sender's e-mail address, the receiver's e-mail address, the e-mail subject line, and the date and time sent are included. The *message envelope* is the encrypted bundle of the header and the body that is sent as a unit according to e-mail protocols. There are several protocols associated with e-mail, including IMAP, POP, and SMTP.



Goodheart-Willcox Publisher; Roman Samokhin, Igor Lateci, Dmitry Melnikov, indigolotos/Shutterstock.com

Figure 15-1. The e-mail server is at the center of sending and receiving e-mail messages.

FYI

IMAP sends copies of messages to all e-mail devices used by the account holder.

IMAP

The **Internet message access protocol (IMAP)** describes how to store and retrieve e-mail messages. It is an application-layer protocol that provides an e-mail client's access to a mail server. An e-mail box is set up on the server for each user. Messages are stored in the e-mail box and delivered to the user either on demand or automatically. One of several different e-mail clients can be used to interact with the e-mail server. An e-mail application program such as Microsoft Outlook, web-based mail service, and smartphone mail programs can be used to access the e-mail server.

POP

The **post office protocol (POP)** is also an application-layer protocol that describes how to store and retrieve e-mail messages. The main difference between IMAP and POP is that in POP each e-mail client must independently download the messages from the server. POP predates IMAP, and both protocols are supported by most e-mail systems.

SMTP

The **simple mail transfer protocol (SMTP)** is used to transfer mail from one e-mail system to another over the Internet. It was the first standard that emerged from the ARPANET. SMTP is how the message gets to the e-mail server, and then IMAP or POP delivers it to the e-mail client.

GS4 Living Online 3.1.1

E-mail Account Settings

Access to an e-mail account is restricted. Each user of an e-mail system must have a unique account username. The general format for an e-mail address is the username followed by the at sign (@) and the DNS name of the e-mail server, such as JaneDoe@easymail.xyz.

Username

The **username** is the online identity of the account holder. The username must be unique for that e-mail provider to ensure the e-mail address does not conflict with other e-mail functions. Username requirements vary by e-mail system. These restrictions will be noted as an account is being created. A common example of a restriction is not permitting the use of special characters, such as /, @, and %.

If the account will be used only for personal e-mail, a playful username is acceptable, such as FunnyCat. However, if you plan to conduct business using the e-mail address, including conducting job searches, a proper username is better, such as your first and last names. Many people use variations of their own name for business e-mail usernames. Underscores, hyphens (dashes), or periods (dots) can be used to make the e-mail address easy to read and recall, such as Mateo_Vasquez@mail.xyz.

Password

Guidelines for creating a safe password are discussed in Chapter 16. Different e-mail providers may enforce stricter password rules. All rules for creating a password will be outlined as the account is created.

Some e-mail clients offer to remember your password. From a security standpoint, do not allow this. The password is meant to protect you and your messages. The time it takes to enter a password is far less than the amount of time it would take to repair damage done by unauthorized access. If you are the only user of the computer and a password is required to start the computer, you may consider allowing the e-mail client to save your password, but it is still better not to do so.

STEM

Technology

The technology used for mass communication has evolved drastically. One of the earliest known forms dates to 3000 BC, when the Egyptians perfected hieroglyphics. Just in the last 400 years, humans have gone from the first newspaper to the telegraph to video conferencing in real time on smartphones.

Credentials

In terms of information technology, a **credential** is a record that saves the authentication criteria required to connect to a service, such as e-mail or other database-supported resource. A credential can be as simple as a username and password. It may additionally contain security questions, require a phone number, or require a valid e-mail address. A credential is most often used to verify a user's identity. In the case of retrieving a forgotten password, the user may be required to provide information in the credential to verify he or she is the actual user, not somebody trying to hack into the system.

Microsoft Outlook

GS5 Living Online 3.1.1

Microsoft Outlook is an e-mail client in the Microsoft Office suite. The user interface is shown in Figure 15-2. Take some time to learn the interface and investigate the features supported. Notice the common elements used by all Microsoft Office applications.

Outlook is not an e-mail *service*, it is an e-mail *client*. That is, Outlook can combine all of the e-mail accounts you have with e-mail providers, but it does not allow you to create a new e-mail service. For example, Outlook supports adding an existing Gmail account. To add an account to Outlook, use the **Add Account** command found on the **File** tab of the ribbon. A wizard guides you through adding an existing e-mail account to Outlook.

Web-based E-mail

GS5 Living Online 3.1.1.1

Many e-mail clients run as a specific program on a local computer, such as Microsoft Outlook, and access to e-mail is from that client alone. This is popular with many businesses and organizations because of the control and security it offers. More flexible access to e-mail can be had with a web-based e-mail client. Examples of web-based e-mail are Gmail, Yahoo! Mail, and Outlook.com (formerly Hotmail).

The benefit of this type of e-mail client is that a user has access to it anywhere there is an Internet connection. A web browser is used to access the e-mail client via the Internet. Navigate to the log-in web page for the client, and enter your username and password. Once logged in, you will have access to the messages as well as the features of the client.

Web-based e-mail clients tend to be used for personal accounts. Many are free, but the user may be exposed to advertising on the website. Additionally, since these domains are widely known, they are often the targets of spam. Another downside to web-based e-mail clients is that these sites experience frequent attacks by cyber criminals.

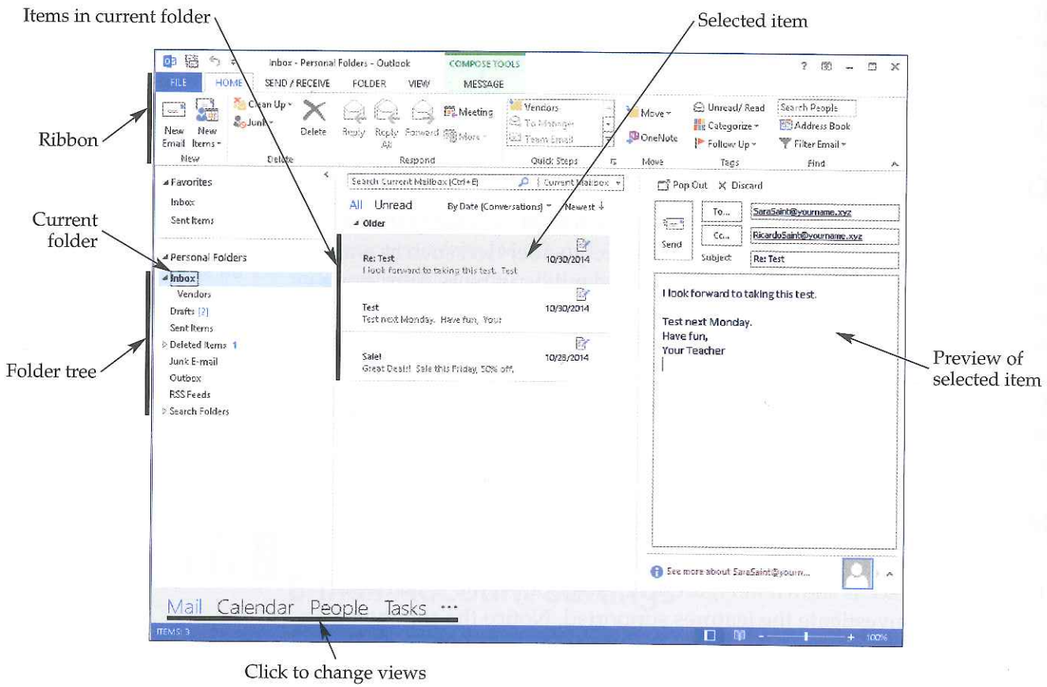


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Figure 15-2. Microsoft Outlook is the e-mail client for the Microsoft Office suite.

HANDS-ON EXAMPLE 15.1.1

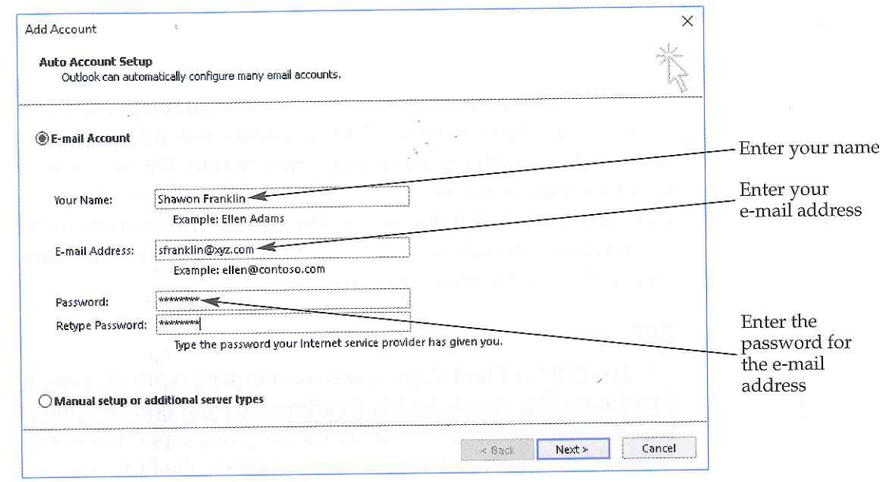
ADDING AN ACCOUNT TO OUTLOOK

Microsoft Outlook is a personal communication tool that can be used to manage a single e-mail account or multiple accounts. A wizard is used to add an account to Outlook.

1. Launch Microsoft Outlook 2013.
2. Click the **File** tab in the ribbon to display the backstage view.
3. Click **Info** on the left of the backstage view, and then click the **Add Account** button on the right. The **Add Account** wizard is launched.

HANDS-ON EXAMPLE 15.1.1 (CONTINUED)

4. Complete the first page of the wizard by entering your name, the e-mail address you wish to add, and the password for that account, as shown.



5. Click the **Next** button. Outlook attempts to automatically configure your account.
6. When Outlook has configured the account, click the **Finish** button. Outlook displays the e-mail messages on the e-mail server waiting to be delivered to this account.

Appropriate E-mail Use

GS4 Living Online 3.1.2, 4.1.1

Digital citizenship is the standard of appropriate behavior when using technology to communicate. Good digital citizenship focuses on using technology in a positive way rather than using it for negative or illegal purposes. E-mail has grown beyond personal uses. In many cases, e-mail has taken the place of traditional printed business correspondence. In addition, many social engagements are set up using e-mail. It is important to use Standard English to conduct these types of communication. Complete sentences, correct spelling and proper grammar are required. For casual e-mail conversations with family and friends, less importance can be placed on this.

FYI

Always strive for proper spelling and grammar use, even in casual messages; it reflects on you.

Header

GS5 Living Online 3.1.2.4

The header contains the e-mail addresses of all who will receive the e-mail and a subject line. The main recipients of the e-mail are listed in the To line. Enter the e-mail address of each person who is required to act on the message in this line.

In addition to the main recipients, copies of the message can be sent to other people. This is similar to other people in a room who are listening to your conversation with another person.

GS5 Living Online 3.1.2.2

CC

The CC or Copy line is used for e-mail addresses of people who will receive the e-mail, but who are not the main recipient. Somebody who is copied on an e-mail is provided the message for informational purposes only. He or she usually is not required to act on the message. These e-mail addresses are visible to the recipients.

CC stands for carbon copy. In the past, when typewriters were used to compose letters and papers, the only way to make a copy of the document was with carbon paper. A sheet of carbon paper was placed between two sheets of paper. Each keystroke was printed on the top sheet of paper with the inked typewriter ribbon. The keystroke was also transferred to the second sheet of paper by the carbon paper. The top sheet was the original document. The bottom sheet was the carbon copy. The term carbon copy is still used for e-mail copies, but the term *computer copy* is also used to mean the same thing.

GS5 Living Online 3.1.2.2

BCC

The BCC or Blind Copy line is used to send a private copy to somebody. *BCC* stands for blind carbon copy or blind computer copy. E-mail addresses in this list are not seen by any other recipient. When sending an e-mail to a large number of people, the BCC line can be used for all of the recipients. The sender enters only his or her e-mail address in the To line. This keeps all e-mail addresses confidential. Only the sender's e-mail address is visible to the recipients.

FYI

A blind computer copy is often used to send a targeted mass e-mail, such as a product announcement, so the e-mail addresses of all recipients remain private.

Subject Line

The *subject line* should clearly and concisely state the topic of the e-mail. A clear subject line provides information to the recipient and helps to determine the priority for reading the message and where to store it. By focusing the subject line on the topic of the e-mail, readers can more easily keep track of replies.

The subject line is also important because it is the information displayed by the IMAP protocol, as shown in Figure 15-3. The sender's username or e-mail address, the subject line, and the delivery time to the server are listed along with a few words of the message body. The full message is not downloaded to the e-mail client until the message is clicked.

GS4 Living Online 4.1.3

Body

The body of the message contains all of the communication from the sender to the recipient. Until the reader replies, this is one-way communication. Therefore, take care to provide all of the information the reader needs to respond fully.

Some e-mail clients offer a choice of formatting the message as plain text, rich text, or HTML. Plain text is text only without any formatting. The rich text and HTML options support simple text formatting and including images. However, be aware that some e-mail clients do not support incoming mail in rich text and HTML formats. Recipients with

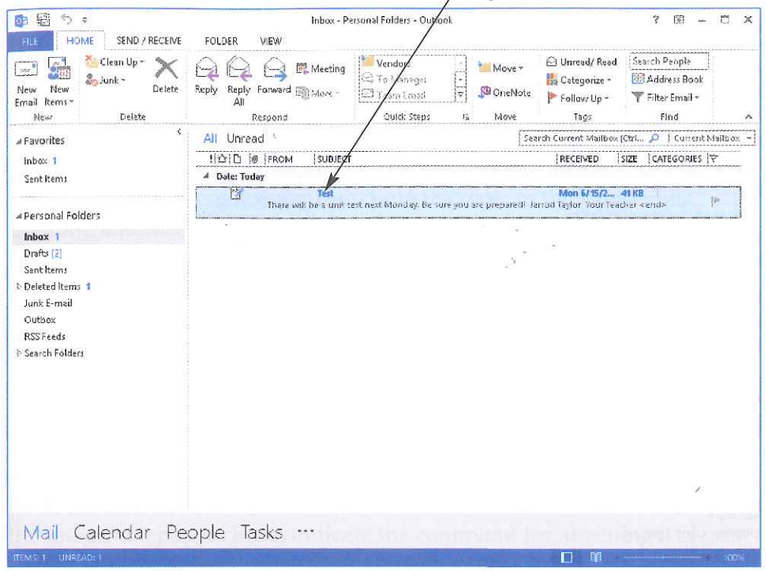


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Figure 15-3. The subject line is displayed in the user's inbox when an e-mail message is received.

these clients will either receive a plain-text version of the e-mail or the e-mail will be bounced back to the sender.

When sending a formal e-mail, it should include a salutation, the message, and a complimentary close and signature. Casual e-mail to family and friends does not need to be as formal.

FYI

As with all Microsoft Office applications, by default Outlook automatically displays spelling and grammar errors.

Salutation

The *salutation* is the greeting in the message. The general rule is to use traditional salutations, but e-mail tends to be more informal than letters. You may use the salutation "Dear" as in a letter, depending on whether you are writing a formal or informal e-mail. People often address each other by their first names in e-mails. Use your judgment based on your relationship with the recipient. If you address the recipient by first name in person, it is usually correct to do the same in written communication.

Message

Format the e-mail message the same as a letter or a memo. Use appropriate spacing, as shown in Figure 15-4. Always follow netiquette when writing both personal and business e-mails. **Netiquette**, or Internet etiquette, is a set of guidelines for appropriate behavior on the Internet, including e-mail. When you are sending e-mail as a representative of an organization or business, use Standard English and the spell-check feature before sending. Remember, your e-mail could be forwarded to others who might make judgments about what you have written.

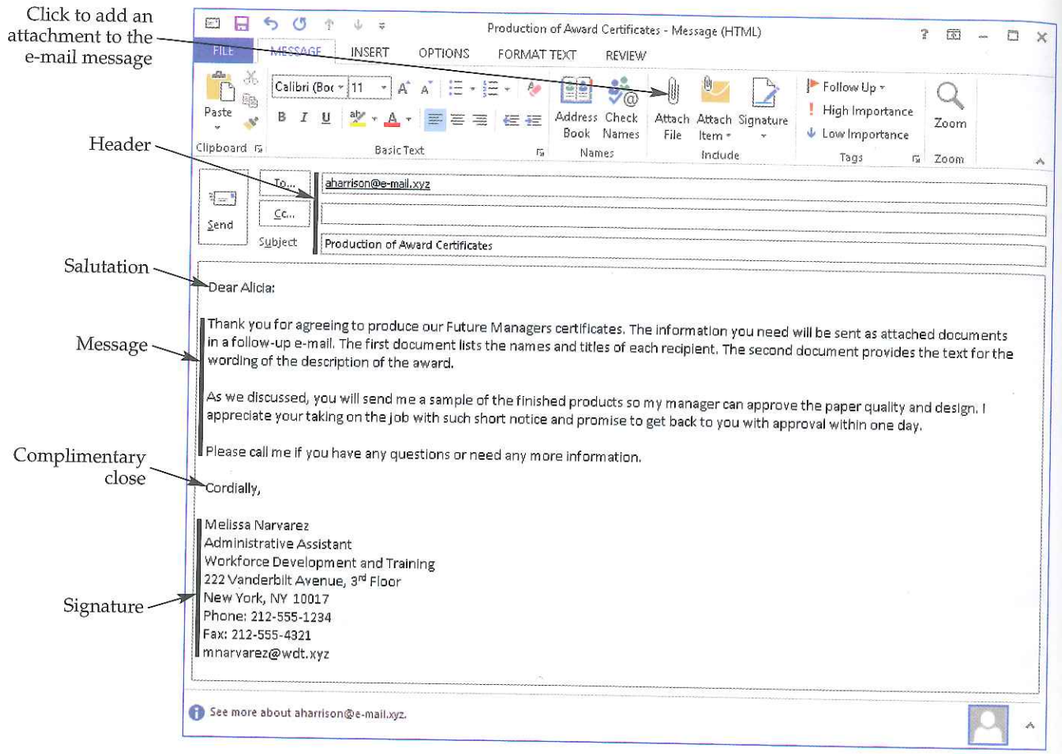

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Figure 15-4. This e-mail is properly formatted.

Complimentary Close and Signature

GS5 Living Online 3.1.2.3

E-mail often takes the place of routine phone calls and face-to-face conversations. Writers often forego including a closing and formal signature in these kinds of messages. However, a courteous thank-you at the end of the message is usually appropriate.

For an e-mail that is used in place of a formal letter, it is important to include a complimentary close just as in a printed letter. Include your full name and contact information at the bottom of the e-mail for the convenience of the reader. A handwritten signature can be included as a graphic, but this is not common. Most e-mail programs allow the user to set up a signature to be automatically inserted, which is discussed later in this chapter.

Replying and Forwarding Messages

GS5 Living Online 3.1.2.1

If you receive an e-mail message, it may require a response. There are three basic ways to respond to an e-mail message:

- reply
- reply all
- forward

The *reply* option sends your comments to the sender. Depending on the settings of your e-mail client, the original message may or may not be included. The default is usually to include the original message. The *reply all* option sends the return message to everyone who received the original e-mail, except blind copy recipients. The *forward* option sends the reply to a new recipient. A new e-mail address must be entered in the To line.

Stay with the original topic in your reply. If you want to bring up a new topic, send a new e-mail and note the topic in the subject line. Creating a new e-mail with a new subject line makes it easier to keep the information flow understandable. Additionally, it allows both the sender and recipient of the e-mail to electronically file and organize the e-mail.

Attachments

GS5 Computing Fundamentals 5.1.1
Living Online 3.1.4
GS4 Key Applications 6.2.1

Most e-mail clients allow files to be sent along with the text part of the e-mail message. Any type of file can be sent. It is common to share work with others by sending attachments. Reports, spreadsheets, presentations, databases, or just about any other type of work in digital form can be shared as an attachment to e-mail. Most e-mail clients use the image of a paper clip to indicate the command for attaching a file, as shown in Figure 15-4.

However, because of the danger posed by malicious attachments, some e-mail clients or servers will not accept them. One of the file types most often rejected is compressed files, such as a ZIP file. This is because compressed files can hide executable files within that may bring malware to the client computer. It may be a good idea to send an e-mail to alert the recipient you will be sending another e-mail with an attachment.

This danger is real. Any attachments that arrive on e-mail messages must be carefully handled. In general, do not open an attachment without a subject line, if you do not know the recipient, or if it is not fully explained in the body of the message.

Ensure both the e-mail client and the recipient can handle the size and type of the file. Many e-mail servers have limits on the size of files that can be received. Limits are placed on attachment size for most mobile e-mail clients as well. In general, files that are smaller than 1 MB can be accepted by most e-mail servers. If a file is larger than that, you may need to first send an e-mail to ask if the person will be able to receive a large file. For very large files, a better option may be to set up an FTP or cloud site that can be used to transfer the files.

Green Tech

Paperless Society

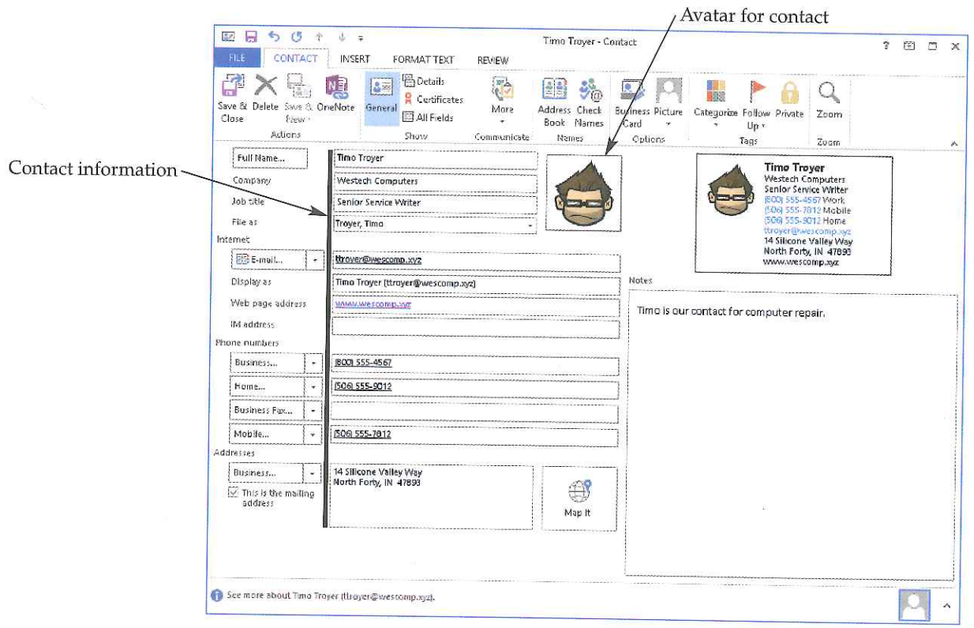
Even though much written communication today is in the form of e-mail, paper still helps people communicate. Paper is still used in business to take notes, write reports, and perform other tasks. IT companies can take measures to reduce the consumption of paper by adopting eco-friendly practices.

Address Book

GS5 Living Online 3.1.5.1

Remembering a variety of e-mail addresses is difficult. To accommodate this, most e-mail clients provide an electronic address book. An **address book** contains the e-mail addresses of contacts and may contain other information for each, such as a phone number and notes about the person, as shown in Figure 15-5. Most e-mail clients will suggest contacts from the address book as the To line is filled in. This makes it easy to select a recipient without having to enter the entire e-mail address.

Whenever a group of people is sent the same types of messages, a contact group can be created in the address book. A **contact group** is a named collection of e-mail addresses from the address book. One name is applied to the entire list. When this name is entered in the To line of an e-mail message, the e-mail will be sent to all contacts within the group. Alternate names for contact group are distribution list, contact list, and group.



Goodheart-Willcox Publisher

Figure 15-5. This is the information for an entry in the user's address book.

HANDS-ON EXAMPLE 15.1.2

CREATING A NEW CONTACT GROUP

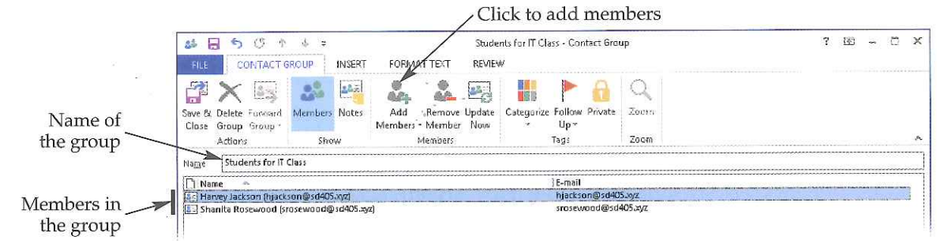
Contact groups make it easy to send an e-mail to a large number of addresses at the same time. It is easy to set up a contact group in Microsoft Office.

1. Launch Microsoft Outlook 2013.

HANDS-ON EXAMPLE 15.1.2 (CONTINUED)


New Items

2. Click the **New Items** button in the **New** group on the **Home** tab of the ribbon, and click **More Items>Contact Group** in the drop-down menu. The **Contact Group** dialog box is displayed, as shown.




Add Members

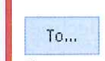
3. Click the **Add Members** button in the **Members** group on the **Contact Group** tab of the ribbon in the dialog box, and click **New E-mail Contact** in the drop-down menu. The **Add New Member** dialog box is displayed.
4. Click in the **Display name:** text box, and enter your first name.
5. Click in the **E-mail address:** text box, and enter your e-mail address.
6. Click the **OK** button to create the contact and add it to the contact group being created.
7. Applying what you have learned, add two more contacts using the information for two of your friends.


Save & Close

8. Click in the **Name** text box at the top of the **Contact Group** dialog box, and enter Me and My Friends. This is the name of the contact group. Notice the title bar of the dialog box reflects the name once the [Enter] key is pressed.
9. Click the **Save & Close** button in the **Actions** group on the **Contact Group** tab of the ribbon in the dialog box.


New Item

10. Click the **New Item** button (new e-mail) in the **New** group on the **Home** tab of the ribbon. A new e-mail message is opened.



To...

11. Click the **To...** button. The **Select Names** dialog box is displayed, which lists all of the contacts and contact groups saved in the address book.
12. Select the Me and My Friends group in the list, and click the **To->** button at the bottom of the dialog box.
13. Click the **OK** button. Notice the name of the contact group appears in the **To** text box in the message. When the message is sent, it will go to all contacts in this contact group.

Managing E-mail Communication

GS4 Living Online 3.1.3

Most e-mail clients have several features to help manage communication. Automated features can be set to send a reply or forward a message. Personal folders can be created to organize messages. Filters can be set to manage unwanted e-mail. E-mail messages can be deleted or archived.

Automated Features

In today's world of instantaneous news feeds, messaging, and social media communication, often e-mail is expected to function like a text or instant message. Sometimes, it can function like that, with a reply being received seconds after the original message was sent. However, in most cases, it will take minutes, hours, or even days for somebody to reply to your e-mail. When you find yourself in a situation where you will not be able to reply to a message in a timely manner, there are automated features that can help.

Auto Respond

The **auto-respond option** sends a set reply to every e-mail message received. A message such as:

> Thank you for your e-mail. We will respond as soon as possible.

allows the sender to know you received his or her e-mail. This provides feedback even if you cannot send a direct reply. If the sender does not hear from you for a few hours or even a few days, he or she can be assured you received the e-mail. This does not, however, let him or her know whether or not you actually opened the e-mail.

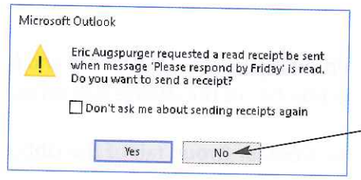


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Figure 15-6. The recipient usually can decline to send a read receipt, depending on the e-mail client.

Read Receipt

There are times where you, as the sender, need to know if somebody read the e-mail. If the recipient has set up an auto-respond message, then you will know if he or she *received* it, but not if the message was opened. A *read receipt* is a return message sent when the original message has been opened. Not all e-mail clients support read receipts. Also, the person receiving the original message usually has the option to decline sending the read receipt, as shown in Figure 15-6. Therefore, this is not a foolproof method of knowing if somebody has read a message.

FYI

Read receipts can be distracting to the recipient, and some people consider them rude. Use them only when there is a critical need to do so.

Out of Office

The **out-of-office message** is an auto-response message generated once for each user who sends e-mail to the address. When you will be unavailable for a long period of time, use the out-of-office feature to send a message stating when you will return. This is a courtesy. It allows the sender to know you are unavailable instead of not responding to his or her message.

Auto Forwarding

The auto-forwarding feature automatically sends a copy of any received e-mail to a different e-mail account. This is useful for a POP account when you will be away from the client computer for some time.

For example, you may wish to forward the e-mail to an account that can be accessed from your smartphone or other mobile device.

Signatures

A *signature*, or signature block, is content, usually text, that is automatically entered each time you start a new e-mail message. In the signature block, include your name, job title, department, and contact information. It is customary to include the e-mail address in the signature, since many e-mail clients display the sender's full name instead of the e-mail address.

It is also common to include graphics and hyperlinks in the signature. For example, many businesses and organizations will include a logo. Icons are also often included for social media, such as Twitter and Facebook. Each graphic is typically hyperlinked to the corresponding web destination.

Personal Folders

GS5 Living Online 3.1.3.4

Received messages appear in the Inbox folder. Sent messages are automatically placed in the Outbox until sent by the e-mail client. Once sent, they are automatically moved to the Sent or Sent Items folder. There are typically other default folders as well, depending on the e-mail client.

Subfolders can be created in the Inbox folder. These can be used to sort and hold your old mail messages. Create folders by project, sender, or whatever scheme you desire, as shown in Figure 15-7. The fewer files in your inbox, the faster your e-mail client will load.

Junk Mail

GS5 Living Online 3.1.2.6, 3.1.3.1

Unsolicited e-mail messages are known as junk or **junk e-mail**. Junk e-mails are often unsolicited marketing notices. Many junk e-mails are the result of checking or failing to uncheck a "subscribe to receive updates" check box on an order form. Once you provide an e-mail address to one company, it may be sold to other companies. The company you gave your e-mail address to in the first place may also send junk e-mails.

Most e-mail servers have junk e-mail filters. There are several *e-mail blacklists* the IT industry uses to help protect clients from junk e-mail. If a server IP address appears on one of these blacklists, most e-mail servers will block any e-mail from that address. Some e-mail servers are stronger in enforcing the blacklists than are other servers.

Most e-mail clients also have some form of junk e-mail filter. If an e-mail is detected as junk, it is automatically moved to the Junk or Junk E-mail folder. Unfortunately, sometimes e-mails that are not junk can be flagged and moved to the Junk folder. Therefore, it is a good idea to check the Junk folder every once in a while to see if any of the messages are not really junk. Adding the address of the misdirected e-mail message to your address book may prevent this mishap in the future.

FYI

In some e-mail clients, manually moving a message to the Junk folder will set a rule so similar e-mail messages are automatically flagged as junk.

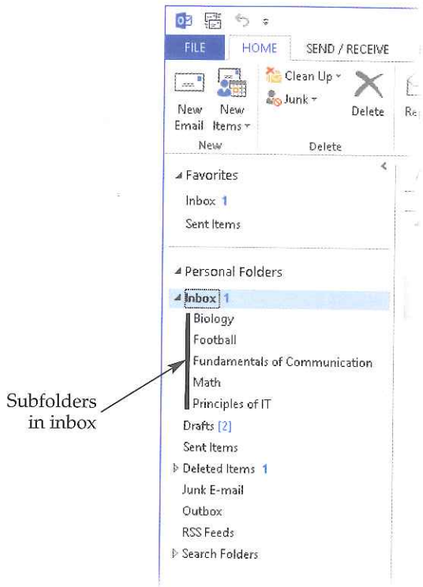

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Figure 15-7. Folders can be created to arrange messages by topic, such as by class or activity.

GS5 Living Online 3.1.2.5, 3.1.3.1

GS4 Living Online 4.1.4

Spam

Spam is a type of junk mail. **Spam** is one unwanted e-mail message sent to a large number of users or multiple identical unwanted messages sent to a single e-mail address. Spamming is unethical. It is usually part of a scam or done to overload an e-mail server.

FYI

The term *spam* originated as a reference to a Monty Python skit about the canned-meat product Spam. During the skit, the name Spam is repeated over 100 times.

Cleaning Up E-mail Folders

When messages are kept in an e-mail Inbox folder, Sent folder, or other subfolders, disk space is consumed. Also, these messages are loaded each time an e-mail client starts up. This takes extra time. In order to free space and speed up loading, messages may be archived or deleted.

Archiving E-mail Messages

GS5 Living Online 3.1.3.2

If an e-mail message is not needed at the moment, but important enough to keep, it can be archived. **Archiving** consists of storing e-mail messages in a place where they will not load every time the e-mail client is launched, but can be accessed if needed. Many e-mail clients archive e-mail messages in a compressed file that is saved on the hard drive. This file can be opened to access the messages it contains, as shown in Figure 15-8. Once the archive file is closed, the messages are no longer available until the file is again opened.

Some e-mail clients will prompt you to archive old messages. Messages can also be manually archived. This is useful to store all e-mail

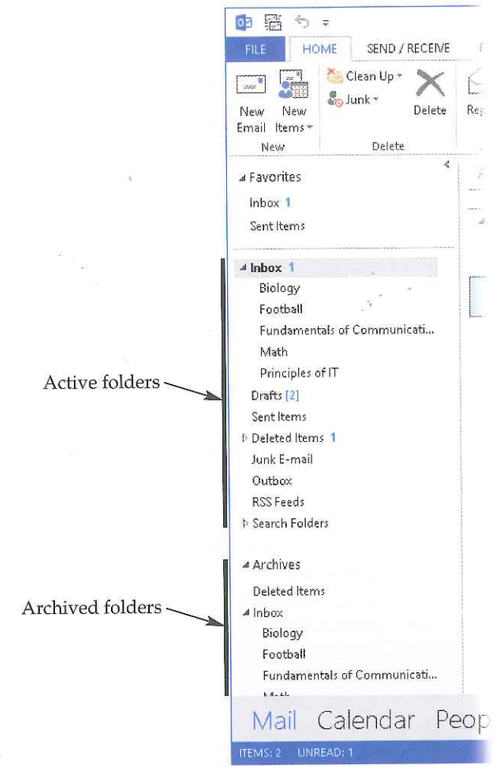

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Figure 15-8. Archived messages are not loaded each time the client is launched, but can be accessed if needed.

messages related to a project with the other project files. If personal folders are created by project, it is a simple step to archive the project e-mails.

Deleting E-mail Messages

GS5 Living Online 3.1.3.3

To delete an e-mail, simply highlight it and press the [Delete] key or click the **Delete** button in the e-mail client. However, this does not remove the e-mail. Most e-mail clients move deleted e-mails to the Deleted folder. The messages remain there until the folder is emptied. Some e-mail clients are set up to automatically empty the Deleted folder when the client is closed. In other cases, the folder must be manually emptied.

What you say in an e-mail likely will always be accessible by somebody. Even when the Deleted folder is emptied, the e-mail is not permanently removed. E-mail servers generally do not delete e-mail messages for legal reasons. E-mail providers may be subpoenaed by law-enforcement agents when investigating crimes.

15.1 Section Review

Check Your Understanding

1. What stores and delivers e-mail messages?
2. Which protocol is used to transfer e-mail from one system to another?
3. What is the simplest credential for an e-mail account?
4. Why are compressed files, such as ZIP files, sent as attachments often rejected by e-mail clients or servers?
5. How does a junk e-mail filter work?

IC3 Certification Practice

The following question is a sample of the types of questions presented on the IC3 exam.

1. Interactive question.
   Demonstrate how to set up an out-of-office reply using a Microsoft Exchange server.

Build Your Vocabulary

As you progress through this course, develop a personal IT glossary. This will help you build your vocabulary and prepare you for a career. Write a definition for each of the following terms and add it to your IT glossary.

address book
archiving
auto-respond option
contact group
credential
digital citizenship
e-mail client
e-mail server
Internet message access protocol (IMAP)
junk e-mail
message header
netiquette
out-of-office message
post office protocol (POP)
simple mail transfer protocol (SMTP)
spam
username

Real-Time Communication

Section 15.2

One of the most noteworthy innovations in the recent past is the development of mobile technologies. Beginning over 70 years ago with the invention of cellular technology, the evolution of the mobile industry has been fascinating. The first handheld mobile phone weighed 2.5 pounds and had a range of only five miles. Now they are pocket-sized and virtual full-fledged computers. In addition to phones, laptops and tablets provide computing on the go.

There are many technologies that support real-time communication. Technologies such as SMS and IM support text messages. MMS supports multimedia messages, while VoIP supports voice. Videoconferencing and streaming video support transfer of video. This section explores the technologies that form the foundation of mobile communication.

Essential Question

How has social media changed the way in which news is reported?

Learning Goals

After completing this section, you will be able to:

- Discuss telephone technologies.
- Explain various communication tools.

Terms

blog
carrier
cell
cellular technology
flaming
forum
instant messaging (IM)
multimedia messaging service (MMS)
really simple syndication (RSS)
short messaging service (SMS)
streaming
videoconferencing
Voice over Internet Protocol (VoIP)