Lesson 6: Digital Communication

Lesson Objectives

In this lesson, you will learn about different tools for digital communication, and you will review a few guidelines for staying safe while online. On completion you will be familiar with:

☐ real-time vs. delayed communication

☐ instant messaging and chat

☐ text messaging

☐ social media sites

☐ online safety

☐ blogs

☐ email

How Can I Communicate with Others?

Communication is the process of interacting with others. One person "sends" information and another person (or several persons) "receive" it.

We communicate with other people all the time – through speaking, writing, and even facial expressions and body language. We also communicate electronically by using email and instant messaging, or by posting to a blog or social media site.

Real-Time Communications

IC3 Objective 3-2.2

Real-time communication is instant. A face-to-face conversation is an example of real-time communication. If Mary and Bob are having a face-to-face talk, then as soon as Mary says something, Bob hears it. Bob can also respond immediately. And as soon as Bob says something in reply, Mary hears his reply.

Real-time communication requires that all the people involved in the communication are available at the time the communication takes place. For example, if Mary calls Bob on the phone, Bob must be available to answer the phone, or the call will not take place.

Several technologies provide real-time communication.

Phone Calls

Phone calls are an obvious example of real-time communications. If you are in an emergency situation and need to reach someone, a phone call is probably the best choice.

A phone call can be placed to one or several people at the same time. When more than two people are joined into a call, the call is a conference call. You can place a phone call using:

- a standard "landline" telephone – this technology uses the phone lines owned by the phone company (for example, Sprint, or AT&T) to send communications between two telephones.

- a cell phone – this technology uses a cellular network (for example, the Verizon Wireless or T-Mobile network) to send communications between two telephones.

- VoIP – this technology uses the Internet to send communications between VoIP telephones, or telephones and computers, or computers and computers.

Instant Messages (IM)

Instant Messaging (or IM) is an example of real-time communication.

It allows two or more people to "talk" with one another in real time by typing messages in a message window.

Skype, Google Hangouts and Yahoo! Messenger are just a few of the many instant messaging programs available. Some programs, such as Skype and Google Hangouts, can be used for more than just instant messaging – you can use them to make phone calls and even video calls.


To use an instant messaging program, you begin by signing in. When you sign in, you let the program know that you are available to receive communications. Your contacts (the people you regularly communicate with) will also be able to see that you are available.

Your availability is also called your *online status*. Most communications programs let you set your online status to a couple of different settings, including:

- **Available** – you are online and ready to receive communications.

- **Away** – you are online, but may be away from your computer.

- **Busy** – you are online, but you are busy.

- **Do Not Disturb** – you are online and do not want to receive communications right now.

- **Invisible** – you are online, but no one can see you (that is, you appear offline to everyone else).

The following figure shows an instant message session in Skype.
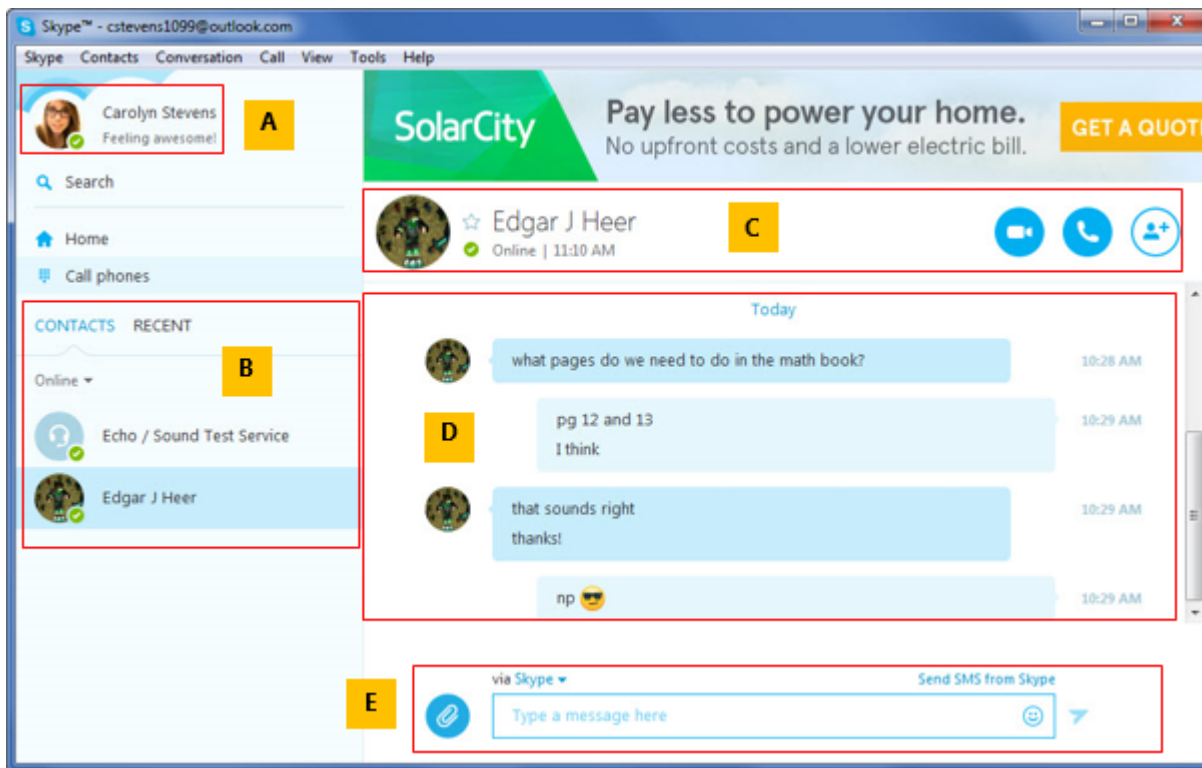
Most instant messaging programs look similar and include many of the features listed in the following table.

| Your Name	A	Shows your name and a personal greeting or message. In Skype, this is called your "mood."
Contact List	B	Displays your contacts (the people you communicate with) and their current status. A green symbol usually means "available."
Contact Summary	C	Displays information about the person you are communicating with. Skype also displays buttons for other methods (video call, audio call) of communicating with the currently selected contact.
Conversation window	D	Displays the instant messaging conversation you are having.
Conversation box	E	Type your messages in the box, then press Enter .

Most instant messaging programs allow for group conversations, so more than two people can chat electronically. Instant messaging is a very useful when you need to get an answer quickly.

In order to use an instant messaging program, you must create an account with a username and password.

Chat

Many social media sites (such as Facebook and Google+) also include built-in chat features that perform many of the same functions as instant messaging. Chat is also a form of real-time communication. The following figure shows a chat session in Facebook.
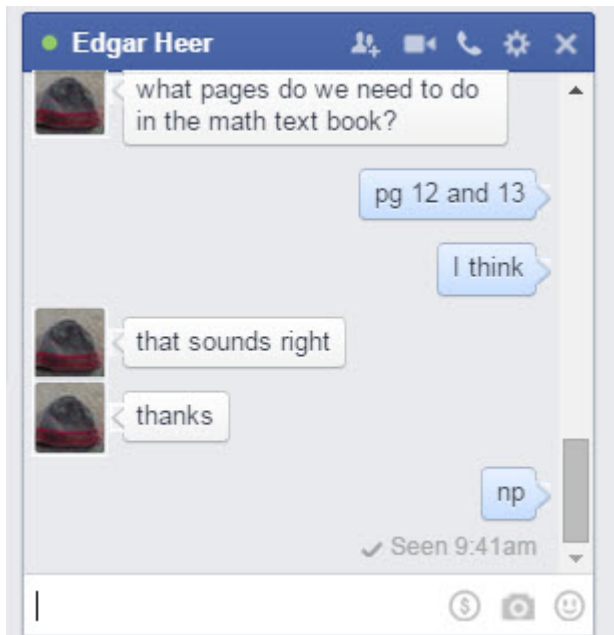
The icons at the top of the window show that Edgar can switch to video chat, or a phone call. He can also click the settings button (⚙) to send files (for example, photos or documents) through the chat window.

You can also change your availability status for chat.

Other Real-Time Technologies

Other technologies that offer real-time communication include:

- **Video-conferencing** – this is a conference call that includes video. Video conferences are made on computers that include cameras and speakers (or on expensive video conferencing equipment).

- **Real-time video** – several programs allow you to add live video to a chat session. Skype, Google Chat, iChat and ooVoo make it easy to see your family and friends while you talk with them.

Delayed Communication

IC3 Objective 3-3.2, 3-4.1

Delayed communication is not instant. There is a time delay between the sending and receiving of information. A mailed letter is an example of delayed communication. Mary writes Bob a letter. She puts the letter in an envelope, addresses and stamps the envelope and drops it off at the post office. In a few days, a letter carrier delivers Mary's letter to Bob's mailbox. When Bob comes home from school, he checks the mail, brings it inside, and then opens and reads Mary's letter.

Although all the people involved in delayed communications may be available at the time a communication is sent, their availability is not required. Mary may text Bob, and Bob may reply right away, but if Bob is not available, the text message will be waiting for him the next time he turns on his phone.

Several technologies provide delayed communication.

Text Messages

Text messages (or "texts") are similar to instant messages except they are sent over a cell phone network using a communication protocol called Short Message Service (SMS).
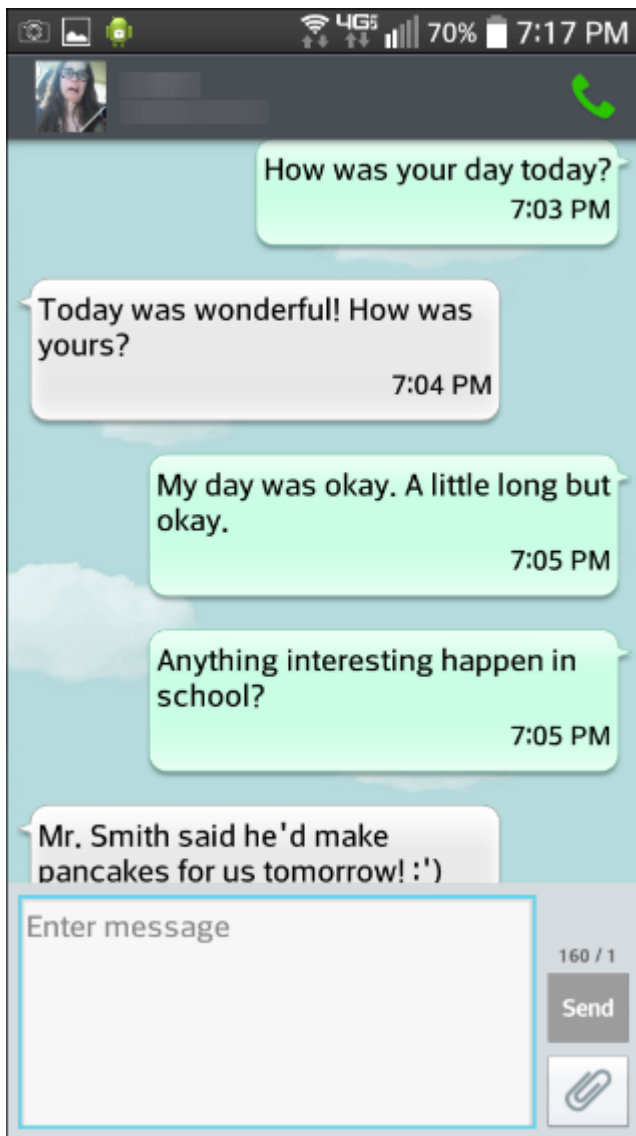
Text messages are created and sent from mobile devices such as cell phones or tablets with cellular ability. Messages are short; they can contain about 100 to 200 characters per message.

In order to send a text message, you must know the cell phone number of the person you want to text. It is easiest if you enter that person into your Contacts list in your phone.

To send a text, open the messaging application on your phone or tablet, specify one or more contacts who will receive the message, type your message, and then tap the Send button.

You can send a text message to one person or to many people. When you send a text message to more than one person, your phone uses the Multimedia Messaging Service (MMS) protocol.

MMS also lets you send messages that include multimedia content such as pictures, video, audio recordings, maps, contact cards or drawings, in the text message.

Social Media Sites

Social media sites are web sites you can join to connect with people you know and to meet new people too. Facebook, Twitter, LinkedIn, Pinterest, Tumblr, Instagram, Flickr and Vine are just a few examples of popular social media sites. The following figure shows pages from Facebook, Twitter and Tumblr.
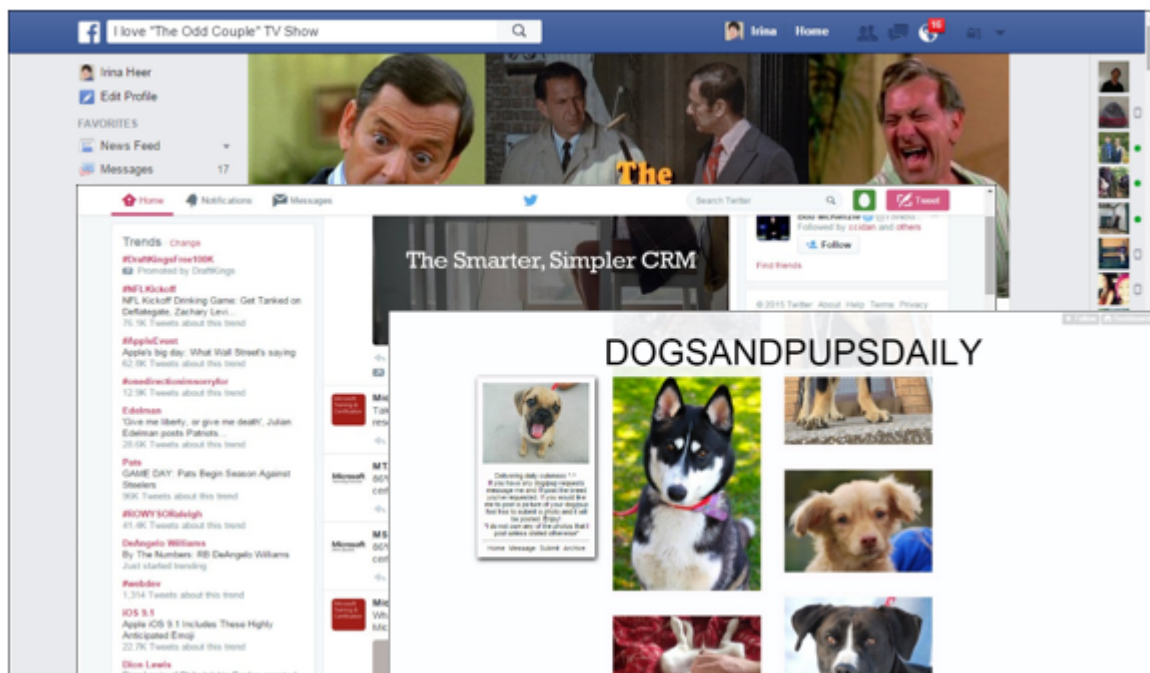
You must create an account on a social media site before you can use it, and you may need a parent's permission if you are under the age of fifteen.

When you join a site, you create a profile. A *profile* is a collection of information about you. It usually includes your name, your picture, a list of your interests and hobbies, and perhaps general information about where you live.

Once you create a profile on a social media site, the site creates a page for you. You can then post pictures, video, or text about yourself on your page. Other people can then comment or respond to your posts.

Social media sites provide both delayed and real-time communication. Posts are an example of delayed communication; live chat features provide real-time communication.

Friends and Friend Requests

Once your page has been created, you can invite people you know to be your "friends" on the site. Friends can see your page and your information. Anything you post on your page can be seen by all your friends, unless you take extra steps to share certain items with only selected friends.

You will probably also receive friend requests from other people who have their own pages on the site. A friend request is an invitation to become online friends.

You should accept friend requests only from people you know. If you receive a friend request from someone you do not know, decline the request.

Be Smart about What You Share

You should always be very careful not to share too much personal information in any online site – even one which you have joined. For example, avoid listing:

• your complete name and address

• your phone number

• details about your birthday or your age

• details about where you live or go to school

People who want to steal identities can steal yours using the personal information you share in your online profile. Kidnappers and other predators also browse social media sites. Protect your personal information!

Don't announce on social media sites when you and your family are going away on vacation. Burglars browse social media sites too. They love to know when a house will be empty.

Even if you don't show your address anywhere in your profile, be careful about sharing details that could allow someone to determine where you live or spend your time, such as a picture of the front of your home, or of the

unique street signs in your neighborhood.

Be Careful in Chats

Chatting online with people you don't know can be dangerous. Not everyone puts true and honest information into their profile. Your online fourteen-year-old friend "Amanda" could actually be a forty-three-year old man named Dave.

For your personal safety, you should never agree to meet privately with someone who you know only online. If you must meet, always bring a parent or adult friend with you, and always insist on meeting in a public place.

Tell an Adult

Remember that parents and teachers are here to help you. If you see content on a social media site that makes you uncomfortable or is inappropriate, tell a trusted adult. He or she can advise you and/or help you block out unwanted content.

Online is "Out There"

You should understand that once you post a picture or a video or a story to a social media site, anyone who can visit your page can copy what you posted and share it with other people – even with people you don't know or don't like.

Even if you remove a picture or video from your page, anyone who copied it still has it, and can still do with it whatever they like. That is, your picture is still "out there" on the Internet. Be careful about what you post on your page.

Blogs

Blogs are online journals. You can publish or "post" your thoughts or an article on a specific topic to your blog, and then other people can post comments in response.

To create a blog, you visit a blog site and create an account. Some popular blog sites are:

- Blogger www.blogger.com

- WordPress wordpress.com

- Tumblr www.tumblr.com

Most sites include templates or samples to help you get started. To post an article to your blog, you have to sign in with a username and password (you select these when you create your account). You can also send a link to your blog to other users.

Email

Electronic mail (email) is a lot like postal mail. Messages are sent to a specific person at a specific address. Your email Inbox is very much like a postal mail mailbox; your messages arrive at the Inbox and sit there until you log in and check your mail.

> Here's a Tip:
> Your email username and password are referred to as "credentials."

Popular email programs include Microsoft Outlook.com (formerly called Hotmail), Google Gmail, or Apple Mail.

To use email, you must create an account and select a username and password.

You don't need to be logged in to your email account in order for messages to be delivered to you. You need to log in only to send and retrieve messages.

Email is a good communications choice when a reply is not urgent, and it is a popular way to share files (which you can send as email attachments). You can send an email message to one person or to many people.

Contacts List/Address Book

Most email programs include an address book (or Contacts list), which is a list of stored names and email addresses. Using the address book is a fast and accurate way to insert email addresses into an email message.

Using an Email Program

IC3 Objective 3-2.1

There are many free email programs available for you to use. In this course, we use Outlook.com, but you can use almost any web-based email program and follow along. Email programs are different in how they look and where specific commands and features are located, but they all work in pretty much the same way.

Outlook.com is a free web-based email program from Microsoft. You can use it to send and receive email and to use online versions of several Microsoft products such as Word, Excel and PowerPoint.