COMMUNICATION: MASS AND OTHER FORMS

This chapter will prepare you to

- recognize the elements of the communication process;

- understand the different types of communication settings;

- identify the function of gatekeepers;

- describe how the Internet has changed mass communication;

- explain the various types of mass media convergence; and

- explain the implications of disintermediation on the media.

Had you been surfing the Web on January 25, 2003, you might have been mildly perplexed that it was taking longer than normal to load some popular Websites. Had you been aware, however, of what was actually causing the slowdown, you would have been extremely concerned. The slowdown was due to an Internet worm called "Slammer," a worm that demonstrated how it might be possible to take down the whole Internet in just 15 minutes.

It started in a computer, probably somewhere in Asia, when someone sent a tiny piece of code, just a few lines long, to a computer hooked to the Internet. The code was a worm, a self-contained program that can replicate and send copies of itself to other machines on the network. (Note that a worm is not a virus; a virus attaches itself to some other program, like an e-mail attachment, and its spread depends upon people opening the attachment. A worm is self-sufficient; it doesn't need any human help. Also, note that a worm can contain a virus.)

Unlike the destructive and annoying SoBig worm that clogged up e-mail inboxes during the summer of 2003, Slammer wasn't aimed at home computers. It was far more threatening. The worm burrowed itself into a piece of Microsoft software called SQL Server
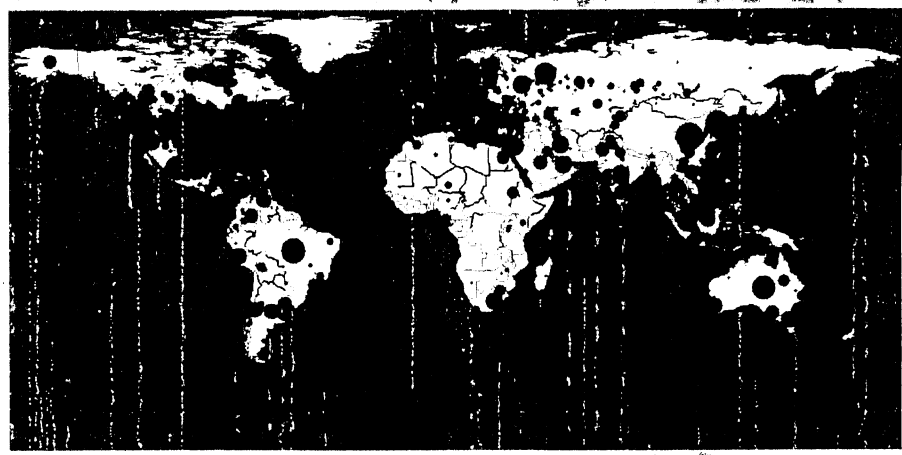
This map shows the spread of the Slammer word 30 minutes after its release. The bigger the circle, the more computers that were affected.
From www.cs.berkeley.edu~weaver/sapphire/.

2000, a database program that many companies use to build their network server applications. It exploited a flaw in the software that allowed it to clog up and eventually shut down the entire system; hence, its name *SQL Slammer*, or just *Slammer* for short.

When Slammer first got into a computer it started looking for other computers to infect by generating random IP addresses (these are four sets of numbers that identify computers hooked to the Internet, such as 10.200.122.144). When it infected a vulnerable computer, that computer also started sending out messages. An avalanche effect occurred quickly. Thousands of infected computers were sending so many messages back and forth, as many as 10,000 messages per second, that they clogged the system.

In the United States, companies that relied on the Internet to carry data felt the effects. Bank of America customers could not withdraw money from any of the bank's 13,000 ATMs. Some Continental Airlines flights were canceled when the airline's online reservations center could not process requests. Some investment banks in New York City found that their e-mail was no longer working. In Washington state, the computers connected to the 911 emergency number ran so slowly that dispatchers started taking notes with pencil and paper.

The results were worse in Asia and Europe. In South Korea, people couldn't access the Internet for hours. Japan and India reported similar problems. People in Finland had trouble placing phone calls.

By the time the weekend was over, more than 200,000 computer servers had been infected. Five of the 13 Internet "root" servers, the computers that contain the databases that translate names such as "weather.com" into machine-readable num-

bers, were overwhelmed by the traffic. The total cost to clean up after the worm was about $1 billion.

Still, it could have been worse. Slammer hit on a weekend, a low traffic period. Had it struck on a Monday, the worm might have shut down the entire Internet. Big investment firms would have been paralyzed; 911 numbers would have been useless; the travel industry would have ground to a halt. In addition, Slammer was easily controlled. The worm didn't write itself to a hard drive but simply resided in a computer's memory. Turning the machine off and then installing a patch killed the worm. Finally, Slammer wasn't malicious. It didn't destroy files or capture passwords or credit card numbers; it simply replicated itself over and over again. Had Slammer carried a mean and nasty virus embedded in its code, the outcome might have been disastrous.

>> Warhol Worms

Even more frightening is how fast Slammer traveled through the Internet. Computer experts estimated that the worm was doubling in size every nine seconds after it first appeared. After three minutes, Slammer was scanning for vulnerable servers at a rate of more than 55 million scans per second. Within 10 minutes, Slammer had affected 90 percent of all vulnerable computers.

Many scientists warned that Slammer was the forerunner of a "Warhol worm." Pop artist Andy Warhol once remarked that in the future everybody would be famous for 15 minutes. A Warhol worm would become famous, or perhaps infamous, because it would spread fast enough to infect the entire Internet in 15 minutes. Is such a feat possible? A research paper from the University of California published in 2001 suggests how it might happen.

Rather than using Slammer's technique of generating random IP addresses, a true Warhol worm would first target vulnerable computers with extensive connections to the Internet. Once these machines were infected, the worm would replicate itself and look for others. After 15 minutes, more than a million key computers would be contaminated. What if a deranged individual or terrorists attached a malicious virus to this hyperfast worm? It's possible that the whole Internet would grind to a halt. The damage would be incalculable. Software designers and computer security experts face a neverending battle to safeguard the system from such threats.

Communication between people is fragile. Technological advances have increased the speed and reach of human communication but, as the Slammer example illustrates, communication can become even more fragile when machines are involved. The following examples may not be as disturbing as the Slammer incident, but they are no less illustrative:

- Thanks to a glitch, a computer at a Michigan hospital sent a letter to 8,500 former patients informing them that they were dead.

- In Sweden, a computer error accidentally changed the amount of a government check for a woman's monthly child support from about $322 to $10 billion, a sum that's more than the Gross Domestic Product of Bolivia. When the woman notified the bank about the error, the bank sent her flowers and thanked her for not cashing the check.

- In a Canberra, Australia, shopping center, someone tampered with public weight and body mass machines. Instead of printing out for users cherry messages such as "Happy New Year" and "Best Wishes for the Future," the machines printed out insults such as "You weigh 200 pounds, you fat pig" or "Get off the scale. You're hurting me."

- A man got a bill from his gas company for $3.7 trillion. When he ignored it, the company threatened to take him to court if he didn't pay the full sum immediately. It turns out that a computer glitch accidentally confused the 13-digit property reference number with the amount due.

- Some lucky travelers were able to book a room at New York's swank W Hotel for $25 rather than the normal $259 nightly rate when an employee accidentally loaded an incorrect room rate into the hotel's computer. (That's not the first time a computer slipup has helped consumers. The website for Hilton Hotels mistakenly offered rooms for $0 a night at some of their U.S. hotels. A mistake by United Airlines on their Website let tourists fly round trip to Europe for less than $30. Both Hilton and United honored the incorrect rates.)

Even with low-tech devices, human communication often goes awry:

- A London bank sent out 15,000 letters promoting its new telephone help line. Unfortunately, there was a typo in the phone number and everybody who dialed the wrong number was connected to a sex chat line.

- An Atlanta radio station released a Christmas CD with songs by popular artists. The CD label was supposed to say that the proceeds from sales of the CD were to be used to "fight illiteracy." Regrettably, the station distributed 10,000 of the CDs with a label that said that the proceeds were to be used to "fight illliteracy."

■ In April of 2003, Peter Jennings, the anchor of ABC *World News Tonight*, informed viewers that Federal Reserve Chairman Alan Greenspan was in the hospital "with an enlarged prostate." The typist who was preparing the closed-captioned text that accompanied the newscast hit a couple of wrong keys and wrote that Greenspan was in the hospital "with an enlarged prostitute."

■ In Miami, a T-shirt manufacturer printed shirts for the Spanish-speaking communi-ty to commemorate the pope's visit to the city. Rather than reading, "Ví el papa" (I saw the pope), the shirts read, "Ví la papa" (I saw the potato).

Despite their apparent lack of similarity, these illustrations share certain elements common to human communication. They serve as a starting point for an examination of the difference between mass and other forms of communication.

THE COMMUNICATION PROCESS

At a general level, communication events involve the following:

1. A source.
2. A process of encoding.
3. A message.
4. A channel.
5. A process of decoding.
6. A receiver.
7. The potential for feedback.
8. The chance of noise.

Figure 1–1 depicts the communication process. We will refer to this figure as we examine the process more fully.

>> **Transmitting the Message**

To begin with, the **source** initiates the process by having a thought or an idea that he or she wishes to transmit to some other entity. Naturally, sources differ in their communication skills ("Garçon, I will have du Boeuf Haché Grillé au Charbon de Bois" versus "Gimmeahamburger"). The source may or may not have knowledge about the receiver of the message. As I write these lines, I have only a general notion about the kinds of people who will read them, and I have absolutely no idea what you'll be doing while you're reading them (that's probably for the best). Sources can be single individuals, groups, or even organizations.

Encoding refers to the activities that a source goes through to translate thoughts and ideas into a form that may be perceived by the senses. When you have something to say, your brain and your tongue work together (usually) to form words and spoken sentences. When you write a letter, your brain and your fingers cooperate to produce patterns of ink or some other substance that can be seen on paper. Encoding in a communication setting can take place one or more

FIGURE 1–1

Elements of the Communication Process
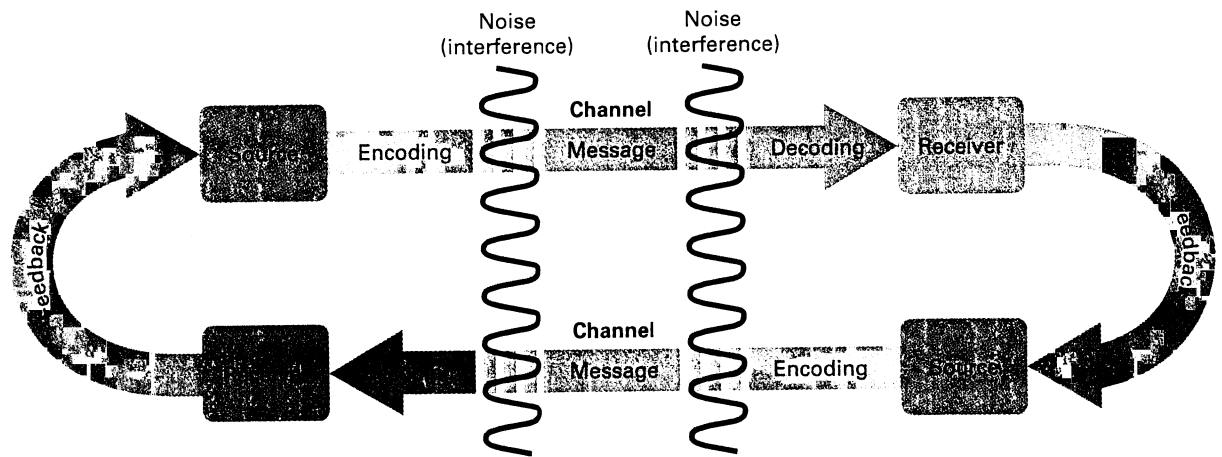
times. In a face-to-face conversation, the speaker encodes thoughts into words. Over the telephone, this phase is repeated, but the phone subsequently encodes sound waves into electrical energy.

The **message** is the actual physical product that the source encodes. When we talk, our speech is the message. When we write a letter home, what we put on the paper is the message. When a television network presents *Frasier* or *ER*, the programs are the message. Human beings usually have a large number of messages at their disposal that they can choose to send, ranging from the simple but effective "No!" to something as complicated as Darwin's *On the Origin of Species*. Messages can be directed at one specific individual ("You turkey!") or at millions (*People* magazine). Messages can be cheap to produce (the spoken word) or very expensive (this book). Some messages are more under the control of the receiver than others. For example, think about how hard or easy it is for you to break off communication (1) in a face-to-face conversation with another person, (2) during a telephone call, and (3) while watching a TV commercial.

Channels are the ways the message travels to the receiver. Sound waves carry spoken words; light waves carry visual messages. Air currents can serve as olfactory channels, carrying messages to our noses—messages that are subtle but nonetheless significant. What kind of message do you get from someone who reeks of Chanel No. 5? Of Brut? Of garlic? Touch is also a channel (e.g., braille). Some messages use more than one channel to travel to the receiver. Radio signals travel by electromagnetic radiation until they are transformed by receiving sets into sound waves that travel through the air to our ears.

>> Receiving the Message

The **decoding** process is the opposite of the encoding process. It consists of activities that translate or interpret physical messages into a form that has eventual meaning for a receiver. As you read these lines, you are decoding a message. If you are playing the radio while decoding these lines, you are decoding two messages

Regulating the Olfactory Channel

Bend, Oregon, recently passed a city ordinance banning anybody who gives off a "grossly repulsive odor" from getting on a city bus.

simultaneously—one aural, one visual. Both humans and machines can be thought of as decoders. The radio is a decoder; so is a videotape playback unit; so is the telephone (one end encodes and the other end decodes); so is a film projector.

A single communication event can involve many stages of decoding. A reporter sits in on a city council meeting and takes notes (decoding); he or she phones in a story to the rewrite desk where another reporter types the story as it is read (decoding). The story is read by an editor (decoding). Eventually it is printed and read by the audience (decoding). What we said earlier about encoding also applies to decoding: Some people are better at it than others. Many of you will not be able to decode "¿Dónde está el baño?"; others will. Some people are able to read 1,500 words a minute; others struggle along at 200.

The **receiver** is the target of the message—its ultimate goal. The receiver can be a single person, a group, an institution, or even a large, anonymous collection of people. In today's environment, people are more often the receivers of communication messages than the sources. Most of us see more billboards than we put up and listen to more radio programs than we broadcast. The receivers of the message can be determined by the source, as in a telephone call, or they can self-select themselves into the audience, as with the audience for a TV show. It should also be clear that in some situations the source and receiver can be in each other's immediate presence, while in other situations they can be separated by both space and time.

>> Feedback

Now let us examine the bottom half of Figure 1–1. This portion of the figure represents the potential for **feedback** to occur. Feedback refers to those responses of the receiver that shape and alter the subsequent messages of the source. Feedback represents a reversal of the flow of communication. The original source becomes the receiver; the original receiver becomes the new source. Feedback is useful to the source because it allows the source to answer the question "How am I doing?" Feedback is important to the receiver because it allows the receiver to attempt to change some element in the communication process. Communication scholars have traditionally identified two different kinds of feedback—positive and negative. In general terms, positive feedback from the receiver usually encourages the communication behavior in progress; negative feedback usually attempts to change the communication or even to terminate it.

Consider the following telephone call:

"Bambi?"

"Yes."

"This is Harold. I sit in front of you in econ class."

"Are you the one who keeps scratching your head with a pencil?"

"Gee, I never noticed it. I guess I do it unconsciously. Say, I was wondering if you would like to have coffee with me sometime after class."

"Are you kidding?"

Click.

Negative feedback. The original receiver terminated the message. Here is another conversation:

"Bambi, this is Rod."

"Oh, hi, Rod. Has your leg healed up from the last game yet?"

"Yeah."

"How are your classes going?"

"I can't get econ."

"I'll be over in 20 minutes to give you some help. OK?"

"OK."

Click.

Positive feedback. The original receiver encouraged the communication.

Feedback can be immediate or delayed. Immediate feedback occurs when the reactions of the receiver are directly perceived by the source. A speech maker who hears the audience boo and hiss while he or she is talking is getting immediate feedback. On the other hand, suppose you just listened to the latest CD by a popular group and decided it wasn't very good. To communicate that evaluation to the source, you would first have to find out the company that distributed the CD, find a mailing address, phone number, e-mail address, or website address. You would then have to send your feedback via the appropriate channel. If you got your message through to the company, it would still have to be passed on to the group, a process that might take several days or even longer.

>> Noise

The last factor we will consider is **noise.** Communication scholars define *noise* as anything that interferes with the delivery of the message. A little noise might pass unnoticed, while too much noise might prevent the message from reaching its destination. There are at least three different types of noise: semantic, mechanical, and environmental.

Semantic noise occurs when different people have different meanings for different words and phrases. If you ask a New Yorker for a "soda" and expect to receive something that has ice cream in it, you'll be disappointed. The New Yorker will give you a bottle of what is called "pop" in the Midwest. An advertising copywriter penned the following slogan for a cough syrup company: "Try our cough syrup. You will never get any better."

Noise can also be mechanical. This type of noise occurs when there is a problem with a machine that is being used to assist communication. A TV set with a snowy picture, a pen run-ning out of ink, and a static-filled radio are all examples of mechanical noise.

A third form of noise can be called environmental. This type refers to sources of noise that are external to the

Jewel may sing about intuition but what she and other performers really want is positive feedback.

SOUND BYT

Stumbling Across the Language Barrier

Semantic noise is bad enough in English, but imagine the problems that crop up when messages are translated into a foreign language.

- The slogan made popular by Frank Perdue, founder of Perdue's Chickens, "It takes a strong man to make a tender chicken," was translated into Spanish as "It takes an aroused man to make a chicken affectionate."

- Parker Pens launched a campaign in Mexico with ads that were supposed to read, "It won't leak in your pocket and embarrass you." Unfortunately, the company used the incorrect Spanish verb "embarazar" for "to embarrass" in its ad. As a result, the ad read, "It won't leak in your pocket and make you pregnant."

- Pepsi's slogan "Come Alive with the Pepsi Generation" was translated into Chinese as "Pepsi brings your ancestors back from the grave."

communication process but that nonetheless interfere with it. Some environmental noise might be out of the communicator's control—the noise at a restaurant, for example, where the communicator is trying to hold a conversation. Some environmental noise might be introduced by the source or the receiver; for example, you might try to talk to somebody who keeps drumming his or her fingers on the table.

As noise increases, message fidelity (how closely the message that is sent resembles the message that is received) goes down. Clearly, feedback is important in reducing the effects of noise. The greater the potential for immediate feedback—that is, the more interplay between source and receiver—the greater the chance that noise will be overcome.

COMMUNICATION SETTINGS

>> Interpersonal Communication

Having considered the key elements in the communication process, we next examine three common communication settings, or situations, and explore how these elements vary from setting to setting. The first and perhaps the most common situation is **interpersonal communication,** in which one person (or group) is interacting with another person (or group) without the aid of a mechanical device. The source and receiver in this form of communication are within each other's physical presence. Talking to your roommate, participating in a class discussion, and conversing with your professor after class are all examples of interpersonal communication.

The source in this communication setting can be one or more individuals, as can the receiver. Encoding is usually a one-step process as the source transforms thoughts into speech and/or gestures. A variety of channels are available for use. The receiver can see, hear, and perhaps even smell and touch the source. Messages are relatively difficult for the receiver to terminate and are produced at little expense. In addition, interpersonal messages can be private (whassup?) or public (a proclamation that the end of the world is near from a person standing on a street corner). Messages can also be pinpointed to their specific targets. For example, you might ask the following of your English professor: "Excuse me, Dr. Iamb, but I was wondering if you had finished perusing my term paper?" The very same message directed at your roommate might be put another way: "Hey, Space Cadet! Aren't you done with my paper yet?" Decoding is also a one-step process performed by those receivers who can perceive the message. Feedback is immediate and makes use of visual and auditory channels. Noise can be either semantic or environmental. Interpersonal communication is far from simple, but it represents the least complicated setting.

>> Machine-Assisted Interpersonal Communication

Machine-assisted interpersonal communication (or technology-assisted communication) combines characteristics of both the interpersonal and mass communication situations. The growth of the Internet and the World Wide Web has further

Microsoft's Bill
Gates uses
machine-assisted
communication to get
his point across at
the annual meeting of
the World Economic
Forum. *(Raymond
Reuter/Sygma)*
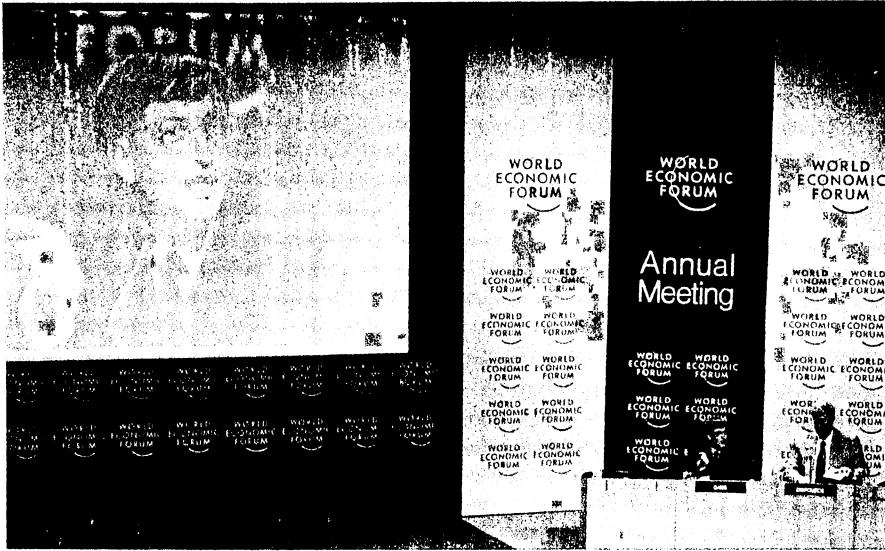
blurred the boundaries between these two types of communication. This section concentrates on those situations that are closer to the interpersonal setting. The next section examines how the computer and the Internet have redefined many of the features of mass communication.

In the machine-assisted setting, one or more people are communicating by means of a mechanical device (or devices) with one or more receivers. One of the important characteristics of machine-assisted interpersonal communication is that it allows the source and receiver to be separated by both time and space. The machine can give a message permanence by storing it on paper, magnetic disk, or some other material. The machine can also extend the range of the message by amplifying it and/or transmitting it over large distances. The telephone, for example, allows two people to converse even though they are hundreds, even thousands, of miles apart. A letter can be reread several years after it was written and communicate anew.

A tremendous variety of modern communication falls into this category. Here are some diverse examples of machine-assisted communication:

1. E-mail allows people to send messages across the country in a matter of seconds.
2. People get money from automatic teller machines by inserting a magnetic card and following the machine's instructions.
3. The Sports Nightmare Reminder Service allows you to torment sports fans you don't like. For a small fee, the service will mail an unmarked envelope to whomever you choose with news clippings of a particular team's biggest loss.
4. Telephone companies offer 900 or 976 lines, over which, for a fee, people can hear recorded horoscopes, erotic fantasies, or information regarding the latest Elvis sightings.

The source in the machine-assisted setting can be a single person (as in the e-mail example) or a group of people (as in the Sports Nightmare example) who

may know the receiver (e-mail) or not have firsthand knowledge of the receiver (the automatic teller example).

Encoding in this setting can be complicated or simple, but there must be at least two distinct stages. The first occurs when the source translates his or her thoughts into words or symbols. The second occurs when one or more machines encode the message for transmission or storage. When you speak on the telephone, for example, you choose and pronounce your words (stage one), and a machine converts them into electrical impulses (stage two).

Channels are more restricted in the machine-assisted setting. Whereas interpersonal communication can make use of several channels simultaneously, machine-assisted settings generally rely on only one or two. E-mail, for instance, relies on sight; a phone call uses electrical energy and sound waves.

Messages vary widely in machine-assisted communication. They can range from messages that can be tailor-made for the receiver (such as e-mail) or limited to a small number of predetermined messages that cannot be altered once they are encoded (the automatic teller can't comment on your new haircut). Messages in this setting can be private or public and relatively cheap to produce.

Decoding can go through one or more stages, similar to the encoding process. Reading a letter requires only one stage, but reading e-mail requires two: one for the computer to decode electrical energy into patterns of light and dark and another for your eyes to decode the written symbols.

The receiver in this setting can be a single person, a small group, or a large group. Receivers can be in sight of the source or out of view. They can be selected by the source (as with a phone call) or self-select themselves into the audience (taking a pamphlet from somebody on the street).

Feedback can be immediate or delayed. A band playing at a concert will hear the audience applaud following a song. A band that provides streaming audio of a new song on its website might have to wait for days to see if people liked it. In many situations, feedback is limited to one channel, as in a phone conversation. In some situations feedback can be difficult if not impossible. If the automatic teller gives you a message that says, "Insufficient funds," you cannot tell it, "I just made a deposit this morning. Look it up."

Noise in the machine-assisted setting can be semantic and environmental as in interpersonal communication, but it can also be mechanical. Interference with the message might be due in part to difficulties with the machine involved.

In the future, machine-assisted communication will become more important. New mobile media, such as cell phones, personal digital assistants, and laptop computers will become more and more popular and continue to expand the scope and impact of personal communication (see Chapter 3). The Internet may come to function more as an aid to interpersonal communication than as a mass medium (see Chapter 11). Finally, the differences between machine-assisted communication and mass communication will continue to blur.

>> Mass Communication

The third major communication setting is the one that we will be most interested in. The differences between machine-assisted interpersonal communication and mass communication are not that clear. **Mass communication** refers to the process by which a complex organization with the aid of one or more machines produces and transmits public messages that are directed at large, heterogeneous, and scattered audiences. There are, of course, situations that will fall into a gray area. How

large does the audience have to be? How scattered? How heterogeneous? How complex must the organization be? For example, a billboard is constructed on a busy street in a small town. Obviously, this would qualify as machine-assisted communication (a machine was used to print the billboard), but is this example better defined as mass communication? An automatic letter-writing device can write thousands of similar letters. Is this mass communication? There are no correct answers to these questions. The dividing line between machine-assisted interpersonal communication and mass communication is not a distinct one.

The line is even less distinct when the Internet and the World Wide Web are considered. Take an e-mail message, for example. It can be addressed to one person, much like machine-assisted interpersonal communication, or it can go to thousands, a situation closer to mass communication. Or take the case of a chat room where one person might be communicating with dozens of others. If two people want more privacy, they can move to a "private" room, a situation that resembles machine-assisted interpersonal communication. On the other hand, feedback in the chat room is limited, a feature of mass communication. The usual clues from personal appearance, tone of voice, and gestures are not present.

Source　Until the advent of the Internet and the Web, the source in the traditional mass communication situation was typically a group of individuals who acted in predetermined roles in an organizational setting. In other words, mass communication was the end product of more than one person's efforts. For example, think about how a newspaper is put together. Reporters gather news; writers draft editorials; a cartoonist draws an editorial cartoon; the advertising department lays out ads; editors lay out all these things on a sample page; technicians transfer this page to a master; other technicians print the final paper; the finished copies are given to the delivery staff; and, of course, behind all this is a publisher who has the money to pay for a building, presses, staff, trucks, paper, ink, and so on. This institutional nature of mass communication has several consequences that we will consider later in this book.

The advent of Internet-based mass communication changes this situation. Thanks to the World Wide Web, one person can become a mass communicator. The full implications of this change may take some time to become clear.

For both traditional and Internet-based mass communication, the source usually has little detailed information about its particular audience. The author of a website has little detailed information about the individual people who visit the site. Traditional mass media may have collective data, but these are typically expressed as gross audience characteristics. The newspaper editor, for example, may know that 40 percent of the readers are between 25 and 40 years old and that 30 percent earn between $20,000 and $50,000, but the editor has no idea about the indi-

E-mail is fast and environmentally friendly; it uses no paper and vehicles burn no gasoline delivering the message. It is no wonder then that American businesses send billions of e-mail messages every year. (Courtesy Lotus Development Corporation)
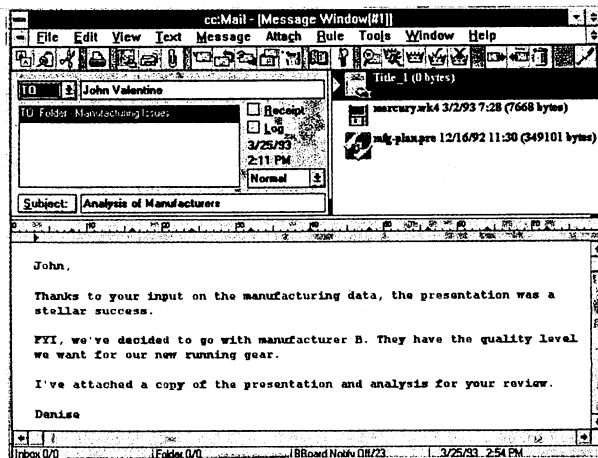
vidual tastes, preferences, quirks, or identities of these people. They are an anonymous group, known only by summary statistics.

Encoding/Sending Encoding in mass communication is always a multistage process. A film producer has an idea. He or she explains it to a screenwriter. The writer goes off and produces a script. The script goes to a director, who translates it for the camera. Cinematographers capture the scenes on film. The raw film goes to an editor, who splices together the final version. The film is copied and sent to motion picture theaters, where a projector displays it on the screen, where the audience watches it. How many examples of encoding can you find in that oversimplified version of moviemaking?

Mass communication channels are characterized by the imposition of at least one, and usually more than one, machine in the process of sending the message. These machines translate the message from one channel to another. Television makes use of complicated devices that transform light energy into electrical energy and back again. Radio does the same with sound energy. Unlike interpersonal communication, in which many channels are available, mass communication is usually restricted to one or two.

Decoding/Receiving Messages in mass communication are public. Anyone who can afford the cost of a newspaper or a CD player or a TV set can receive the message. Additionally, the same message is sent to all receivers. In a sense, mass communication is addressed "to whom it may concern." Of all the various settings, message termination is easiest in mass communication. The TV set goes dark at the flick of a switch, an automatic timer can turn off the radio, the newspaper is quickly put aside. There is little the source can do to prevent these sudden terminations other than bullying the audience ("Don't touch that dial!") or trying to stay interesting at all times ("We'll be back after these important messages").

Mass communication typically involves multiple decoding before the message is received. The CD player decodes patterns of light waves into sound waves for our hearing mechanism. The TV receiver decodes both sight and sound transmissions.

Receiver One of the prime distinguishing characteristics of mass communication is the audience. First, the mass communication audience is a large one, sometimes numbering in the millions of people. Second, the audience is also heterogeneous; that is, it is made up of dissimilar groups who may differ in age, intelligence, political beliefs, ethnic backgrounds, and so on. Even in situations where the mass communication audience is well defined, heterogeneity is still present. (For example, consider the publication *Turkey Grower's Monthly*. At first glance, the audience for this publication might appear to be pretty homogeneous, but upon closer examination we might discover that members differ in intelligence, social class, income, age, political party, education, place of residence, and so on.) Third, the audience is spread out over a wide geographic area; source and receiver are not in each other's immediate physical presence. The large size of the audience and its geographic separation both contribute to a fourth distinguishing factor: The audience members are anonymous to one another. The person watching the *CBS Evening News* is unaware of the several million others in the audience. Lastly, in keeping with the idea of a public message, the audience in mass communication is self-defined. The receiver chooses which film to see, which paper to read, which

Encoding at the movies. Director John Singleton sets up a shot in *2 Fast, 2 Furious*. A motion picture goes through several stages of encoding before it gets to the audience: idea, story, script, filming and editing.

website to visit, and which program to watch. If the receiver chooses not to attend to the message, the message is not received. Consequently, the various mass communication sources spend a great deal of time and effort to get your attention so that you will include yourself in the audience.

Feedback   Feedback is another area where there are differences between interpersonal and mass communication. The message flow in mass communication is typically one-way, from source to receiver, and feedback is more difficult than in the interpersonal setting. The growing popularity of the Internet and the World Wide Web has made feedback somewhat easier, but there are still situations in which sending feedback to the source takes a great deal of effort. Suppose, for example, you were offended by the content of a TV program. You might call the station immediately. If you got through, you would probably be referred to the network if what you saw was a network show. You could choose to call the network (a long-distance call for most), in which case you would probably reach a receptionist, who would suggest you put your complaint in writing or send an e-mail message. Alternatively, you could search for the network's website and find a place to post your comments. In any case, you would not be sure how long it would take for your message to be read, and you might never know if it was read by anybody associated with the program. Systematic, large-scale feedback gathered by media companies is even more delayed since it is typically gathered by an outside organization, such as Nielsen Media Research for television and the Audit Bureau of Circulations for newspapers.

Noise   Finally, noise in the mass communication setting can be semantic, environmental, or mechanical. In fact, since there may be more than one machine involved in the process, mechanical noise can be compounded (watching a scratchy copy of an old film on a snowy TV set).

Table 1–1 summarizes some of the differences among the three communication settings that we have talked about.

>> Defining Mass Media

In the broadest sense of the word, a *medium* is the channel through which a message travels from the source to the receiver ("medium" is singular; "media" is plural). Thus in our discussion, we have pointed to sound and light waves as media of communication. When we talk about mass communication, we also need channels to carry the message. **Mass media** are the channels used for mass communication. Our definition of a mass medium will include not only the mechanical devices that transmit and sometimes store the message (TV cameras, radio

TABLE 1–1

Differences in
Communication
Settings

Element	Setting		
	Interpersonal	**Machine-assisted interpersonal**	**Mass**
Source	Single person; has knowledge of receiver	Single person or group; great deal of knowledge or no knowledge of receiver	Organizations or single person; little knowledge of receivers
Encoding	Single stage	Single or multiple stage	Multiple stages
Message	Private or public; cheap; hard to terminate; altered to fit receivers	Private or public; low to moderate expense; relatively easy to terminate; can be altered to fit receivers in some situations	Public; can be expensive; easily terminated; same message to everybody
Channel	Potential for many; no machines interposed	Restricted to one or two; at least one machine interposed	Restricted to one or two; usually more than one machine interposed
Decoding	Single stage	Single or multiple stage	Multiple stages
Receiver	One or a relatively small number; in physical presence of source; selected by source	One person or a small or large group; within or outside physical presence of source; selected by source or self-defined	Large numbers; out of physical presence of source; self-selected
Feedback	Plentiful; immediate	Somewhat limited; immediate or delayed	Highly limited; usually delayed
Noise	Semantic; environmental	Semantic; environmental; mechanical	Semantic; environmental; mechanical

microphones, printing presses), but also the institutions that use these machines to transmit messages. When we talk about the mass media of television, radio, newspapers, magazines, sound recording, and film, we will be referring to the people, the policies, the organizations, and the technology that go into producing and distributing mass communication. A **media vehicle** is a single component of the mass media, such as a newspaper, radio station, TV network, or magazine.

In this book we will examine eight different mass media: radio, television, film, books, sound recordings, newspapers, magazines, and the Internet. Of course, these eight are not the only mass media that exist. Billboards, comic books, posters, direct mail, matchbooks, and buttons are some other kinds of mass media one could choose to examine. The eight types of media we have chosen, however, have the largest audiences, employ the most people, and have the greatest impact. They are also the ones with which most of us are most familiar.

TRADITIONAL MASS MEDIA ORGANIZATIONS

Since a large portion of this book will examine the institutions that are in the business of mass communication, it will be to our advantage to consider some common characteristics that typify mass communicators. This task has been made more complicated by the emergence of the computer and the Internet as communications media. Internet mass communication is distinctly different from the traditional forms of mass communication. We will first explore the salient characteristics of traditional mass communicators and then examine how communication on the Internet has blurred the established definition of mass communication sources. Here are the traditional defining features:

1. Mass communication is produced by complex and formal organizations.
2. Mass communication organizations have multiple gatekeepers.
3. Mass communication organizations need a great deal of money to operate.
4. Mass communication organizations exist to make a profit.
5. Mass communication organizations are highly competitive.

>> Formal Organizational Structure

Publishing a newspaper or operating a TV station requires control of money, management of personnel, coordination of activities, and application of authority. Accomplishing all these tasks requires a well-defined organizational structure characterized by specialization, division of labor, and focused areas of responsibility. Consequently, traditional mass communication is the product of a bureaucracy. As in most bureaucracies, decision making takes place at several different levels of management, and channels of communication within the organization are formalized. Thus, many of the decisions about what gets included in a newspaper or in a TV program, for instance, are made by committees or groups. Further, decisions are made by several different individuals in ascending levels of the bureaucracy, and communication follows predetermined and predictable patterns within the organization. This results in end products that seldom resemble the original idea of the creator.

>> Many Gatekeepers

Another important factor that characterizes the traditional mass communicator is the presence of multiple **gatekeepers.** A gatekeeper is any person (or group) who has control over what material eventually reaches the public. Some are more obvious than others, such as the editor of a newspaper or the news director at a TV station. Some gatekeepers are less visible. To illustrate, imagine that you have the

Ruben Studdard and Clay Aiken, the 2003 finalists on *American Idol,* perform a song with 2002 winner, Kelly Clarkson. The producers of the program capitalized on *Idol's* appeal to young viewers to get the gatekeepers at Fox to air the series.

world's greatest idea for a TV series, an idea that will make *ER* and *Friends* look mediocre. You write the script and mail it off to Universal Studios in California. A clerk in the mailroom judges by the envelope that it is a script and sees by the return address that it has come from an amateur writer. The clerk has been instructed to return all such packages unopened with a note saying that Universal does not consider unsolicited material. Gate closed.

Frustrated, you decide to go to Los Angeles in person and hand deliver your work. You rush to the office of Universal's vice president in charge of production, where a receptionist politely tells you that Universal never looks at scripts that are not submitted through an agent. Gate closed. You rush out to a phone booth and start calling agents. Fourteen secretaries tell you that their agencies are not accepting new writers. Fourteen closed gates. Finally, you find an agent who will see you (gate open!). You rush to the agent's offices, where he or she glances through your script and says, "No thanks" (gate closed). By now the point is probably clear. Many people serve as gatekeepers. In our hypothetical example, even if an agent agreed to represent you, the agent would then have to sell your script to a producer who, in turn, might have to sell it to a production company which, in turn, might have to sell it to a network.

In the newsroom, an assignment editor decides whether to send a reporter to cover a certain event. The reporter then decides if anything about the event is worth reporting. An editor may subsequently shorten the story, if submitted, or delete it altogether. Obviously, gatekeepers abound in mass communication. The more complex the organization, the more gatekeepers that will be found.

>> Large Operating Expenses

It costs a large sum of money to start a mass communication organization and to keep it running. Recently, the Gannett Company bought 21 newspapers from the Thomson Corporation for $1.13 billion. Cable TV company Comcast paid $53 billion to acquire AT&T Broadband in 2002.

Once the organization is in operation, expenses are also sizable. In the late 1990s, it cost approximately $4 million to $5 million annually to run a small daily newspaper (one with a circulation of about 35,000 to 40,000). A radio station in a medium-sized urban market might spend $700,000 annually in operating expenses. A TV station in one of the top 10 markets might need more than $10 million to keep going. Only those organizations that have the money necessary to institute and maintain these levels of support are able to produce mass communication.

Media economics have contributed to another trend that made itself evident at the end of the decade: consolidation of ownership. Companies that have strong financial resources are the likeliest to survive high operating expenses and are better able to compete in the marketplace. Consequently, by 2000 a number of global media giants had emerged to dominate the field. Table 1–2 lists these "megamedia" companies. The names listed in the table will turn up frequently in succeeding chapters.

>> Competition for Profits

In the United States, mass communication organizations exist to make a profit. Although there are some exceptions (the Public Broadcasting System, for example), most newspapers, magazines, record companies, and TV and radio stations strive to produce a profit for their owners and stockholders. And while radio and television stations are licensed to serve in the public interest and newspapers commonly assume a watchdog role on behalf of their readers, if they do not make money, they go out of business. The consumer is the ultimate source of this profit. When you buy a CD or a movie ticket, part of the price includes the profit. Newspapers, TV, magazines, and radio earn most of their profits by selling their audiences to advertisers. The cost of advertising, in turn, is passed on by the manufacturers to the consumer. The economics of mass communication is an important topic, and we will explore it later in this book.

Since the audience is the source of profits, mass communication organizations compete with one another as they attempt to attract an audience. This should come as no surprise to anyone who has ever watched television or passed a

TABLE 1–2	Company (home country)	2002 revenue (in billions)
Global Media Giants	1. Time Warner (United States)	$41.8
	2. Vivendi Universal (France)**	31.1
	3. Walt Disney Co. (United States)	25.3
	4. Viacom (United States)	24.6
	5. Sony (Japan)	19.9***
	6. Bertelsmann (Germany)	19.4
	7. News Corp. (Australia)	17.5
	8. Comcast (United States)	12.5

*To give some perspective to these data, General Motors' revenue for the same period was $186 billion; General Electric's was $130 billion.

**General Electric, parent company of NBC, acquired Vivendi's media assets in 2003.

***Includes revenue from only media sources.

magazine stand. The major TV networks compete with one another to get high ratings. Millions of dollars are spent each year in promoting the new fall season. Radio stations compete with other stations that have similar formats. Record companies spend large sums promoting their records, hoping to outsell their competitors. Daily newspapers compete with weeklies and with radio and television. Motion picture companies gamble millions on films to compete successfully. This fierce competition has several consequences, and we will return to this topic time and again.

THE INTERNET AND MASS COMMUNICATION

The emergence of the Internet has created a new channel for machine-assisted and mass communication. (Chapter 11 offers a more detailed look at the Internet.) As we have seen, e-mail and chat rooms are examples of machine-assisted communication via the Internet. The World Wide Web brings the Internet into the realm of mass communication and reverses the traditional pattern of one-to-many communication. Websites offer everybody the *chance* to become mass communicators; mass communication is never guaranteed, but the potential is there.

This situation is possible because the Internet brings down the cost of mass communication to a level at which almost anybody can afford it. A single individual can create and maintain a website for a relatively small sum. The affordability of this channel can make anybody an electronic publisher with access to a potential audience of millions, thus creating a whole new type of mass communicator.

These new Web communicators represent exceptions to the five characteristics of mass communication sources listed on page 17. First, websites can be produced by single individuals; there is no need for a large staff. Second, many websites bypass gatekeepers, a circumstance that has both positive and negative consequences. (On the one hand, individuals have the freedom to post whatever they want to without fear that somebody will censor or change the content. On the other hand, there's no guarantee that what is made available is accurate or worthwhile. Rumors, conspiracy theories, and truly tasteless content abound on the Net. There are no editors to sort out the credible from the bizarre or to distinguish merit from trash.) Third, as already noted, start-up and operating costs for websites are not typically expensive. Fourth, although many companies have started websites to make a profit, many others have no such motivation. Some websites apparently exist to serve the public or to gain attention and prestige for their owners. Fifth, competition for an audience may be typical of many commercially sponsored websites, but there are many others for which competition is not a factor.

It should be pointed out that just because the Internet gives everybody the chance to become a mass communicator doesn't mean that everybody who puts up a website is automatically engaging in mass communication. If nobody visits the website, no mass communication takes place. The fact that Uncle Harold publishes a Web page does not necessarily mean that Uncle Harold is on the same level as Time Warner as a mass communicator. True, both Uncle Harold and Time Warner face the same challenges—creating Web content that people want to see, persuading them to visit the site, and convincing them to return—but Time Warner has far more resources with which to meet the challenges. In short, the potential to be a mass communicator exists for everybody, but actually becoming one is difficult.

The World Wide Web has changed the nature of mass communication: Anybody can imitate Milos Radakovich and become a mass communicator. Yahoo! has a listing of more than 20,000 personal pages such as this one.

In addition, the Internet seems to be evolving into more of an interpersonal than a mass medium. There are, of course, many websites that fit the criterion of traditional mass communication (CNN.com, ESPN.com, usatoday.com), but consider the operations that have been most successful on the Internet (e-mail, instant messages, eBay, weblogs, file-sharing a la Napster and successors). All of them are not so much examples of mass communication as they are examples of machine-assisted interpersonal communication involving targeted communications between single individuals or among small groups of people. In addition, none of them was started by a big media company; they grew thanks to the efforts of individuals.
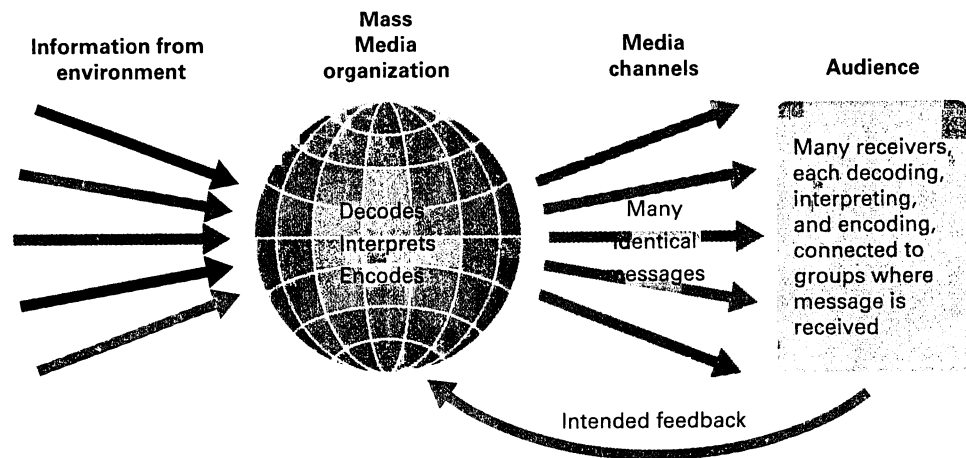
Many media professionals have predicted that traditional mass media content (TV, movies, recordings, newspapers) will eventually converge into digital formats and be delivered into the home via the Internet, making the Net the single most important channel of mass communication. This prediction may come true someday, but for the moment most Americans don't go online to get their news or to watch TV shows and movies. They go online to communicate with others. Take the terrorist attacks of September 11, 2001. Most Americans learned about the attacks from TV and followed events on that medium rather than going online. They used the Internet to send e-mail to friends, family, and coworkers and to enter chat rooms, looking for comfort and consolation from other people (see page 36).

Whatever its ultimate use, the Internet has prompted mass communication scholars (and textbook writers) to rethink conventional definitions and categories of mass communication. This new channel has also necessitated fresh models to describe the mass communication process, a topic that we will turn to next.

MODELS FOR STUDYING MASS COMMUNICATION

Figure 1–1 outlined the elements present in the general process of communication. When we want to talk about mass communication, however, we need to construct a new model that adequately represents its distinctive features. The following dis-

FIGURE 1–2

Traditional Mass Communication Model

Information from environment | Mass Media organization | Media channels | Audience

Decodes Interprets Encodes

Many identical messages

Many receivers, each decoding, interpreting, and encoding, connected to groups where message is received

Intended feedback

cussion introduces two models of the process. The first (Figure 1–2) applies to the traditional mass communication situation, while the second (Figure 1–3) is a new model for describing Internet mass communication.

The traditional representation of mass communication represented in Figure 1–2 is adapted from an early model described by Wilbur Schramm.[1] Although a half century old, it still illustrates the main concepts. Let's begin our discussion at the far left of the model and work toward the right. Information from the environment (both news and entertainment) is filtered through a mass media organization (newspaper, TV network, movie studio, recording company, etc.) where it is decoded, interpreted, and encoded. In other words, the media organization serves as a gatekeeper. Of all the possible CDs that a recording company could release, only a few are noted, interpreted as potential hits, and reproduced in large numbers. At a newspaper, reporters cover potentially newsworthy events and then encode a story. In turn, the story is reviewed by editors who decide if it should make it through the gate and into the newspaper.

Once through the gate, the message is reproduced many times over and sent through the appropriate channel. A recording company, for example, produces a large number of CDs that are sent to retail outlets or directly to consumers. Hundreds or thousands of copies of a newspaper are printed and distributed to subscribers.

The far right side of the model represents the receivers, or the audience. The model suggests that these audience members are not just passive recipients of messages. They decode, interpret, and encode messages themselves. In addition, audience members are not isolated from one another. They are connected to groups, such as family, peers, and coworkers, in which the messages they receive from the media are talked about, reinterpreted, and often acted upon. Some audience behavior (buying a product, subscribing to a paper, watching a TV show) is observed by the media organization and is used as feedback to help shape future messages. There is little direct interaction between sources and receivers. All in all,
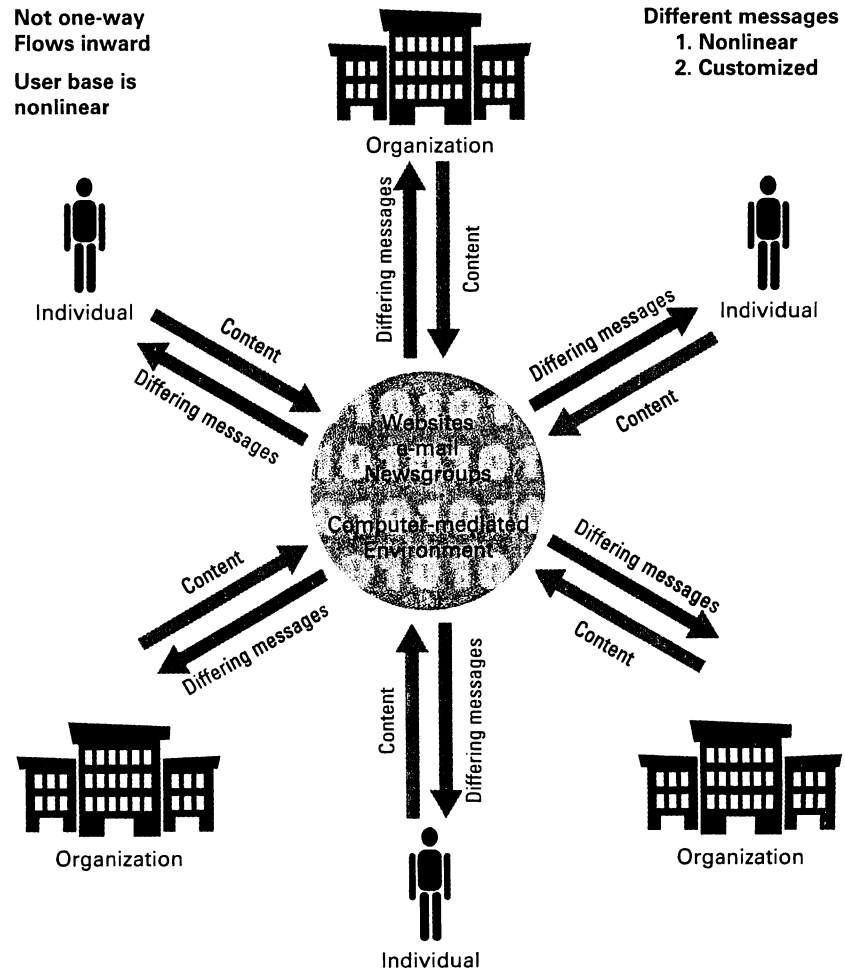
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[1]Adapted from Wilbur Schramm, *The Process and Effects of Mass Communication* (Urbana, IL: University of Illinois Press, 1954).

the Schramm model represents the traditional few-to-many world, where only those sources that can afford to do so publish and distribute information to everyone else.

In contrast, Figure 1–3 is a rough attempt to represent Internet communication, a new arrangement that makes possible several different levels of communication: one source communicating with one receiver (e-mail); one source communicating with many receivers (CNN.com); a few sources communicating with a few receivers (chat rooms, weblogs); and many sources communicating with many receivers (eBay).

Note that in this simplified model, content is provided not only by organizations, but also by individuals. In this circumstance, there are no organizational gatekeepers. A single individual performs the decoding, interpreting, and encoding functions. Also note that Figure 1–3 is not a one-way model. Communication doesn't proceed from left to right but flows inward. The traditional mass communicator no longer necessarily initiates the process. Instead, it is possible for the receiver to choose the time and manner of the interaction. Suppose you wanted to find out what happened in a game involving your favorite baseball team that

FIGURE 1–3

Internet Mass Communication Model

Not one-way
Flows inward

User base is nonlinear

Different messages
1. Nonlinear
2. Customized

Organization

Individual

Differing messages

Content

Content

Differing messages

Individual

Differing messages

Content

Websites
e-mail
Newsgroups
Computer-mediated
Environment

Content

Differing messages

Content

Differing messages

Content

Differing messages

Organization

Content

Differing messages

Organization

Individual

went into extra innings and finished late at night. With the traditional media, you would have to wait for a newspaper to be published or wait for your favorite TV station, cable network, or radio station to report the score. With the Internet, you could visit a sports news website and find the information immediately. Furthermore, if you wanted to know more, you could visit your team's website for more details and check message boards for the reactions of others to the outcome. In short, the audience member has more control of the process.

Another area of contrast between the traditional and Internet models is that the messages that flow to each receiver are not identical. For example, you have many different choices about what you can use as your starting page when you access the Internet. In addition, it's possible to customize the information you receive. Excite, for example, offers many different configurations that allow you to choose specific sports scores, news headlines, stock market reports, weather forecasts, and entertainment news. Each receiver can customize the information that he or she receives. Some writers have characterized the traditional mass communication model as a "push" model (the sender pushes the information to the receiver), whereas the Internet model is a "pull" model (the receiver pulls only the information that he or she wants).

Moreover, in the traditional model, many messages proceed in a linear manner. A newspaper, for instance, is designed to be read from page 1 to page 2, and so on. A book is designed to be read from Chapter 1 to Chapter 2. Thanks to **hypertext,** a means of presenting information in which text, sounds, images, and actions are linked in a way that allows you to jump around among them in whatever order you choose, the receiver no longer has to start at the beginning to find the information he or she wants.

Finally, Figure 1–3 shows that both individuals and organizations are linked through a computer-mediated environment. This makes interaction and feedback much easier. The online magazine Slate.com, for example, has a site labeled "Enter the Fray," where readers can comment on stories in the magazine. This environment allows people and organizations to be linked in unprecedented ways, in totally new forms of interaction. The auction site eBay joins buyers and sellers all over the world. The newsgroup humanities.classics brings together people who were probably never aware of one another and lets them talk about Descartes and Wagner. The Internet links producers and customers and makes e-commerce possible (see Chapter 11). All in all, the new model, incomplete as it might be, suggests a new way of conceptualizing communication in the age of the Internet.

THE FUTURE OF MASS MEDIA SEGMENTATION

The past two decades have seen a basic change in the mass communication process: It's become less mass oriented and more selective. In the 1930s, for example, almost everybody tuned their radios to *Amos 'n' Andy.* Today the top-rated network radio show gets about 2 or 3 percent of the audience. In the 1950s, virtually everybody watched Milton Berle on TV. The typical top-rated shows would attract about 45 percent of all TV households. Currently, top-rated shows get about 20 percent of the audience, thanks to competition from cable; broadcast networks such as Fox, the WB, Paxnet, and UPN; VCRs; video games; and the Internet.

In the 1940s and 1950s, general-interest, mass circulation magazines, such as *Life, Look,* and *Collier's,* were popular. Today *Reader's Digest,* the most widely read

general-interest magazine, is down from its all-time high of 18.4 million readers in 1977 to about 12 million in 2002. In 1960, about 75 percent of the adult population read a newspaper. In 2003, that figure was down to about 50 percent.

What we are seeing is the fractionalization, or segmentation, of the mass audience. What are the forces behind this fundamental change? First, today's audiences are different. There has been an increase in one-parent families. In many households both spouses bring home paychecks. Time has become a scarce commodity, and much of it is devoted to commuting, working, and child raising. All this means less time devoted to the media, and when audience members do spend time with the media, they look for content geared to their special interests. Second, the emergence of new media, such as DVDs, cable TV, the Internet, and direct broadcast satellites, has given today's consumers more media to choose from. Consequently, the audience for any one media vehicle is divided into smaller and smaller segments. Finally, manufacturers and service organizations have turned from mass to target marketing. This has led to an era in which Americans now have more choices than ever before. Large movie theaters with a single screen have given way to 12- or 14-screen multiplexes. Instead of having a handful of radio stations, most big cities now have a couple dozen. There are magazines for seemingly every demographic and special interest group. Back in the 1960s, most households could get just four TV channels. Now most get more than 100.

Does all this mean that *mass communication* is no longer a meaningful term? Should this book be titled *The Dynamics of Segmented Communication?* Well, not quite yet. First, the definition of *mass communication* given earlier still applies. Complex organizations still use machines to transmit public messages aimed at large, heterogeneous, and scattered audiences. Audiences are still large (even a flop TV show can reach four million households), scattered, and heterogeneous enough to justify using the term *mass communication*. Second, the channels of mass communication are unchanged, although there are more and more mass media using these channels: about 13,000 radio stations today compared with half that number a couple of decades ago, more than 3,000 new magazines in the last decade, a record number of TV stations, and so on. The messages sent by these mass media through the channels of mass communication have become more specialized. Magazines, newspapers, radio, TV, and websites are aiming their content at more defined audience niches, in part to meet the demands of advertisers and in part because it's more cost-efficient. Consequently, it's harder for any one

media vehicle to reach a large number of audience members. Nonetheless, the potential is still there for the right message in the right medium to transcend the limits of specialized content and to attract a mass audience in the broadest sense of the term. This happened, for example, with *Roots*, *Who Wants to Be a Millionaire*, *Titanic*, and the coverage of the September 11 attacks. Obviously, although the content of the media has become more specialized, the potential for reaching a mass audience still exists.

>> Convergence

The dictionary defines *convergence* as the process of coming together or uniting in a common interest or focus. Convergence is not a new idea (some past examples are sporks, clock radios, and brunch), but the word has enjoyed renewed popularity in the last few years and has become the centerpiece in discussions about future trends in mass communication. It is a difficult term to discuss, however, because it has been used to refer to several different processes.

At one level, it refers to **corporate convergence**. This trend started in the 1980s with *synergy*. Companies that were content providers such as movie studios and record labels acquired distribution channels such as cable TV. As digital technologies emerged, synergy turned into *convergence*, a vision of one company delivering every service imaginable.

The biggest example of corporate convergence was the 2001 merger of "new media" AOL with "old media" Time Warner. At the time, the merger looked like a good idea. Nearly 60 percent of American households had a computer, and everybody had a TV. The convergence enthusiasts envisioned a future in which each household would have a high-speed broadband connection to the Internet that provided interactive TV, movies on demand, online magazines, e-mail, and Web surfing. Time Warner had the content with its magazines, movies, and TV shows, and AOL had the pipeline into more than 20 million homes. The merger, however, proved disastrous as the company's stock dropped more than 60 percent in the years that followed. It got so bad that "AOL" was officially dropped from the company name in 2003.

In France, Vivendi bought "old media" Universal Music and Universal Studios along with a French pay-TV service to go with its "new media" telecommunication and data transmission networks. As in the Time Warner–AOL merger, the convergence of old and new media didn't live up to expectations, and by 2003 Vivendi had sold its music and entertainment assets to General Electric, parent of NBC. Finally, old media company Bertelsmann spent about $90 million trying to resurrect Napster as a legitimate online music service, a venture that eventually failed.

Why didn't corporate convergence work? One reason was technical. Americans were slow to adopt the high-speed broadband connections needed for convergence to occur. Another reason was bad timing. The mergers occurred shortly before Internet-related stocks went into a tailspin, drying up potential capital for advancing the process. A third had to do with misreading consumer psychology. Just because somebody connects to the Internet through AOL doesn't necessarily mean that he or she wants to watch CNN or Warner Brothers movies or read *Time* magazine. There's no fundamental relationship between content and distribution channels. Will corporate convergence reemerge as a viable business model in the future when more Americans are connected to the Internet via broadband? Maybe, but for now the trend in corporate circles seems more toward divergence than convergence.

The trend toward more mass media and more specialized content seems irreversible. Several consequences of this movement, however, bear scrutiny. To begin, the traditional media, whatever their shortcomings, did provide a national agenda for society and helped define a national consensus. They focused the attention of the nation and mobilized its resources. The fireside chats of Franklin Roosevelt, for example, were credited with helping the country survive the hardships of the depression. Could such a phenomenon take place in the 21st century? Douglas Cater is a media critic who was among the first to question whether media specialization was beneficial to society. In a 1973 *Wall Street Journal* article, Cater posed the fundamental question "What happens when each minority group listens to its own prophets? When there are no more Walter Cronkites each evening to reassure us that despite its afflictions the nation still stands?"

Mass communication scholar Wilson Dizard described the traditional mass media as a kind of social "Elmer's glue" that bound people together (see the discussions on "Linkage" and "Transmission of Values" in the next chapter). Communication researcher Gladys Gantley in a 1991 *Washington Quarterly* article speculates that the growth in the number of specialized and personalized media might have political repercussions. Increased access to a greater range of information could serve as a democratizing force, but there might be a downside: "[If] [s]pread to millions of individuals throughout the world, each literally following his or her own agenda, such power could remove the glue of social cohesion. . . . Power to the people could mean that nobody is in control."

Neil Postman, in his provocative book *Amusing Ourselves to Death*, suggests another troubling possibility. The proliferation of media and messages could result in a flood of trivialized content that distracts us from the key social issues of the day. We might, as his title suggests, amuse ourselves to death.

Another type of convergence is **operational convergence.** This occurs when owners of several media properties in one market combine their separate operations into a single effort. For example, in Florida, WFLA, the *Tampa Tribune,* and TBO.com operate a converged news department. In Lawrence, Kansas, convergence occurred when the Lawrence *Journal-World* combined the news reporting functions of the paper, the paper's website, and its local cable news channel. All in all, it is estimated that there are about 50 examples of this kind of convergence currently underway. If cross-media ownership rules are relaxed, this trend may accelerate.

The advantages of this type of convergence are obvious. It saves money because rather than hiring a separate news staff for each medium, an operation can have the same reporters produce stories for the paper, Website, and TV operation. In addition, each medium can promote its partners. The TV newscast can encourage readers to visit the website or the print newspaper.

There are, of course, disadvantages as well. Reporters require additional training to master various media. This has generated some controversies among print reporters who are not eager to become "backpack journalists" (see Chapter 12) and carry around video cameras and audio recorders as part of their reporting tools. Further, many critics worry that converged operations mean fewer independent and diverse forms of journalism. Some conclude that, although operational convergence may be good for the media companies, it may not be good for consumers. In any case, the jury is still out on the merits of operational convergence.

Finally, there is **device convergence,** combining the functions of two or three devices into one mechanism. Examples of this trend are numerous. Laptop computers play DVDs. Many Personal Digital Assistants are combination computers and cell phones. Some cell phones incorporate digital video cameras. Experts predict that eventually there will be one information appliance in the house that combines the functions of a TV set with those of a computer. Of course, the fact that two functions can be merged in a single device doesn't mean that con-

sumers will snap it up. In addition, if convergence results in a piece of equipment that is too complex to operate, not much is gained.

>> Disintermediation

This rather ungraceful, tongue-twisting word refers to the process whereby access to a product or a service is given directly to the consumer, thus eliminating the intermediary, or "middleman," who might typically supply the product or service. The Internet and the World Wide Web have created a ubiquitous and easily accessible network over which buyers and sellers make direct contact. The Internet has already provided several examples of **disintermediation.** Travelers bypass travel agents and book airline tickets directly online; traders bypass brokers and purchase stocks directly online; consumers bypass salespeople and buy insurance online. (Some businesses have more to fear from disintermediation than others. It's unlikely that consumers will bypass restaurants because of the Internet.)

Disintermediation is of obvious concern to mass media organizations. Those media that can easily be distributed over the Internet are the first to feel its effects. Take sound recording, for example: An artist can use the Web to distribute a CD directly to consumers. The recording company, distributor, and retailer are no longer needed in the process. Or consider book publishing: An author can put a book directly on a website for readers to download, thereby bypassing publishing companies and bookstores altogether.

Other mass communication organizations that do not have the immediate fears of the recording and publishing industries will have to face the implications of this phenomenon. For example, audience members can listen to radio on the Web; local stations are no longer necessary. Before long, movie fans will be able to download current full-length films onto DVDs. Will motion picture theaters become obsolete? The chapters in Parts Two and Three of this book will have more to say about disintermediation and its impact on the various media.

MAIN POINTS

- The elements in the communication process are a source, encoding process, message, channel, decoding process, receiver, feedback, and noise.

- The three types of noise are semantic, environmental, and mechanical.

- The three main settings for communication are interpersonal, machine-assisted interpersonal, and mass communication.

- Each element in the communication process may vary according to setting.

- *Mass communication* refers to the process by which a complex organization, with the aid of one or more machines, produces public messages that are aimed at large, heterogeneous, and scattered audiences.

- Traditionally, a mass communicator was identified by its formal organization, gatekeepers, expensive operating costs, profit motive, and competitiveness. The Internet has created exceptions to these characteristics.

- New models have been developed to illustrate Internet mass communication.

- Communication content has become more specialized in the past 40 years, but the channels of mass communication still have the potential to reach vast audiences.

- The recent history of mass communication contains examples of corporate, operational, and device convergence.

- The Internet makes possible disintermediation, eliminating the intermediary, or middleman. This phenomenon has implications for many media.

QUESTIONS FOR REVIEW

1. What are the eight elements in the communication process?
2. What are the three types of noise?
3. Compare and contrast interpersonal communication with machine-assisted interpersonal communication.

4. How has the Internet changed the characteristics of the sources of mass communication?
5. What is the difference between a "push" and a "pull" model of mass communication?

QUESTIONS FOR CRITICAL THINKING

1. What's the most embarrassing communication breakdown that's happened to you? Analyze why it happened. Semantic noise? Environmental noise? Mechanical noise?
2. Keep a media diary for a day. Tabulate how much of your time is spent in interpersonal, machine-assisted interpersonal, or mass communication. What conclusions can you draw?

3. What are some of the shortcomings of the communication models in Figures 1–2 and 1–3? Are there some elements that are missing?
4. Disintermediation is becoming more common as more people use the Web. Can you find additional examples? Are there some mass media that won't be affected by this trend? Do you think this is a positive or negative development?

KEY TERMS

source (p. 5)
encoding (p. 5)
message (p. 6)
channels (p. 6)
decoding (p. 6)
receiver (p. 7)
feedback (p. 7)

noise (p. 8)
interpersonal communication (p. 9)
machine-assisted interpersonal communication (p. 9)
mass communication (p. 11)
mass media (p. 14)

media vehicle (p. 15)
gatekeepers (p. 16)
hypertext (p. 23)
corporate convergence (p. 25)
operational convergence (p. 26)
device convergence (p. 26)
disintermediation (p. 27)

INTERNET RESOURCES

Online Learning Center

At the Online Learning Center home page, www.mhhe.com/dominick8, *select* Student Center *and then* Chapter 1.

1. Use the Learning Objectives, Chapter Outline, Main Points, and Time Line sections to review this chapter.
2. Test your knowledge of the chapter using the multiple choice, crossword puzzle, and flashcard features of the site.

3. Expand your knowledge of concepts and topics discussed in the chapter by going to *Suggestions for Further Reading* and *Internet Exercises.*

PowerWeb

At the Mass Communication home page of PowerWeb, www.dushkin.com/powerweb, *log in, select* Mass Communication *and on the next screen select* Topics.

Under "Gatekeeping," read Article 19, "You Can't Report What You Don't Pursue." Then answer the following questions: How is self-censorship an example of gatekeeping? Can the audience ever be aware of how much self-censorship exists? What impact will increasing media consolidation have on self-censorship?

2. Under "Internet," read Article 26, "The Real Computer Virus." Recall that Chapter 1 mentioned that one feature of Internet communication is the lack of gatekeepers. In addition to the examples mentioned in this article, can you think of any examples of false information that first appeared on the Internet and made its way into legitimate mass media channels? Is there any way to prevent this from happening?

Surfing the Internet

Listed here are sites that deal with interpersonal and mass communication.

http:excellent.com.utk.edu/JMCE/
The home of *Journalism and Mass Communication Educator,* a periodical that examines instruction, curriculum, and leadership in mass communication education.

http:pertinent.com/
A website that lists articles on various aspects of interpersonal communication, including business communication skills.

www.digital-convergence.org
The latest research on and experiments about convergence sponsored by the Convergence Center at Syracuse University.

http://www.tcpd.org/McCain/Handouts/NotNet.pdf
Site that contains several examples of the disintermediation phenomenon.