Chapter 12

Communication and Social Networking Processes and Systems

Businesses depend crucially on communication within the organization and between the organization and its environment. Communication is indeed a part of organization, which is obvious when considering how communication-intensive management tasks are. This chapter discusses basic communication concepts, organizational communication, communication technologies and systems, and social networking and systems.

Communication, Face-to-Face and Mediated Channels

Communication is the process of creating, exchanging and interpreting messages between communication actors playing the roles of message sender and receiver. As a process, communication involves steps of creating a message, sending it, receiving, and interpreting it (Figure 1). The first two steps are performed by the sender, and the last two by the receiver. Think of your talking to a friend. You create a sentence in your mind; speak it up which amounts to sending it via the air waves; the friend receives the message via his/her audio senses; and the friend interprets it in mind. This is usually called face-to-face model (FtF) of communication. This general model of FtF communication process is shown in Figure 1.

You know from the previous study that what is passed between people is data. Therefore, “message” is some data content created for transfer purposes. If these data are interpreted by the receiver, the meaning or information is created in the receiver’s mind. But note that information is not simply “passed” between the sender and the receiver, because the receiver’s interpretation of a message may not be exactly what the receiver intended to convey. In fact, perfect communication in reality is an exception rather than a rule. In face-to-face communication, things are complicated by body language – facial expressions, arms’ movement, body posture, and other non-verbal cues.

Figure 1. Face-to-face communication
People use non-verbal cues to express thoughts and emotions, both intentionally and spontaneously. But these cues broaden the space for interpreting the message on the receiver’s side. In other words, a message is created and sent in part by body language.

Communication can be mediated as well. Indeed, a prevalent part of communication in modern organizations is mediated via various communication systems. For example, voice can be transferred via the telephone, or messages can be in written format, such as texting on the cell phone. Figure 2 shows mediated communication with a new swim lane “Communication System.” Let us assume it represents the cell phone. On the sender side, the mental creation of a message blends with typing a text on a cell phone. The sender’s phone is the input part of the overall communication system. The message is formatted and passed to the transfer part of the communication system – a telecommunications network. In this case, it is a cell phone network made of transmitters. A message is sent in the form of digital signals. In case of voice transfer, the analog voice signal is modified to digital format.

On the receiver’s side, the receiving cell phone accepts the textual message. A voice message is modified back to the analog format. The end of the process on the receiver’s side is same as with FtF communication.

![Figure 2. Mediated communication](image)

Mediated communication is made possible by communication systems. Historically, these started with the text recorded on paper and transported physically in geographical space. Business communications are still in part carried by paper letters. On the one hand, text eliminates non-verbal cues and reduces turns taking present in FtF communication. On the other hand, text allows for a more precise expression on the sender’s side and it makes a permanent record of business.
These differences between oral and textual communication play differently in different parts of the world. While text-based communication is preferable for doing important business in North America, in some countries oral communication may be more trusted and valued by business people. To be sure, even in North America text-based communication may not work well when a business task involves complex thoughts, opposed opinions, and emotionally charged situations. Therefore, it is important to choose a communication channel fitting the task and situation in order to avoid unintentional effects on both the receiver and the sender side.

It is also important to know differences between paper and electronic textual messages. When writing a business letter on paper, a person typically tries to write clearly and precisely. A notion of permanence attached to paper form might be a motive. These standards tend to drop in communication based on electronic text, such as email, phone texting, and chat. Messages are created fast and the speed of exchanging them resembles dynamic turns taking in FtF communication. Still, there are non-verbal cues to assist the receiver, and what is sent once becomes a permanent record. It has even been found that some people are less self-controlled in mediated than in FtF communication. These are important implications for the use of communication systems in today’s organizations that increasingly depend on such systems.

**Organizational Communication**

Communication explored in this chapter belongs to the category of organizational communication. Such communication is different than communication in family, among friends, mass communication created by news media, and other forms. Two important segments of organizational communication are management communication and professional communication.

Managers are among the most active communication actors in companies. As shown in Figure 3, managers communicate in order to

A. Announce news
B. Delegate work (issue orders)
C. Report to superior managers.

Figure 3. Management communication
Managers are major news brokers in organizations. As they have a broader scope of view, they are in the position to be informed about many issues that are invisible to workers. News help the employees to understand a bigger picture of the organization and its place in the environment.

**Delegating** work (ordering, directing) is one of basic management activities (the “D” item in the POSDCORB acronym cited in a previous chapter). This is usually done through a formal act of communication, which is often in a written format. Electronic templates keep replacing long used paper forms.

**Reporting** is another basic management activity. In reporting on the transpired business managers rely significantly on TPS and MIS. Supervisors use TPS to report to mid-level managers, while these managers use MIS to report to executives. Management reports can be fully programmed, that is, the output of TPS and MIS.

Management communication runs along the lines of official hierarchy (Figure 3). In fact, announcing and delegating downward and reporting upward are the ways of materializing a hierarchy. For that reason, this communication is characterized as *vertical*. Vertical communication is one-way. The manager sends messages either up or down the hierarchy. In the case of paper trail, hierarchical paths are usually memorized and enforced by the staff serving managers. Communication systems can be set up to filter messages in support of official hierarchy.

Organizational communication also makes a big component in professionals’ work. This is *horizontal* communication since it transpires at the same level, among equals (peers) (Figure 4). Also in contrast to management communication, professional communication runs both ways. Remember that working together (collaborating) provides opportunities for mutual sharing of ideas by taking turns in talk. This was discussed in the context of group work as reciprocal interdependence.

Professionals communicate in order to

- Collaborate in executing work inside and outside of an organization
- Share professional knowledge
- Discuss professional issues at meetings.

*Collaboration* occurs both among teammates and individual workers. Communication systems with instant messaging capabilities, such as the chat system, provide much needed support for collaboration. They run on stationary computers as well as on mobile platforms. These systems can show the availability status of a person (on-line, off-line, busy, etc.).

A natural way of *sharing knowledge* is by talking. FtF communication may be the optimal channel when complex work problems are involved. However, it is not always possible. When
professionals are not collocated, voice-based communication systems are indispensable for asking an expert for advice, pooling professional opinions, and sharing professional assessments.

Finally, as part of regular work professionals gather in *meetings to discuss professional issues*. Conferences with spatially distributed attendees must use communication systems. One of these is the teleconferencing system discussed previously in the context of GSS.

*Informal Communication*

Organizational communication also contains an informal segment that is not directly related to work. All organization members communicate in order to socialize. This happens in designated time slots, such as lunches or happy hours in the end of weekdays. Socializing through a relaxed chat also happens around coffee machines and in hallways. Social bonding makes organizational people feel part of the organization. But it is also true that expanding relationships beyond work-related matters actually works in favor of work. People who know each other better may be able to work together more efficiently and effectively. Some companies have recognized this opportunity and provided facilities to take advantage of it (e.g., Microsoft and Google). Such companies have numerous cafeterias and rest areas that attract people to spend longer hours at work. It is assumed that a relaxed chat in the designated spaces may ease professional bonding and even developing of new, creative ideas. Communication systems with video capabilities have been installed to bridge such spaces across different buildings and cities in which a given company operates.

A distinct characteristic of formal organizational communication is that it is *regulated* to a significant extent. Rules constrain the content of organizational communication, its format, timing, and security measures. For example, financial reports are entirely defined in content and format. They are usually confidential, accessible just to designated managers and business analysts. In contrast to regulations by apparent, written rules, organizational communication is also shaped in a tacit manner by organizational culture.

There are several ways in which *organizational culture* shapes organizational communication. It norms acceptable ("politically correct") language, who is supposed to talks with whom, at what times, and so on. As organizations nurture different cultures, the related beliefs and behaviors differ. For example, in organizations with a rigid hierarchy it is unthinkable that an employee
addresses executive manager; contrary, this is quite normal in professional cultures that exist in companies based on teamwork.

Organizational culture can also influence the use and roles of communication systems. For instance, it determines when mediated channels are appropriate to deploy rather than FtF communication; what the appropriate systems for particular tasks are; what acceptable language is like; and how the content of communications is supposed to be treated (e.g., shareable or confidential)? Note that cultural beliefs and behaviors are developed and enforced to different extents in different organizations. Some companies have stronger cultures, others have weaker cultures. The characteristics discussed above are likely to be identified in stronger organizational cultures.

Communication Technologies and Systems

The most pervasive communication systems in business have been based on the telephone. Over time, these systems have evolved and made a few big leaps. Before taking a closer look at the telephone, let us briefly review some significant business technologies and systems. After centuries of paper post, the development of communication systems accelerated with the implementation of electricity for data transfer in the 19th century.

The first important technology was the telegraph. It used a special code made of short and long signals transferred via wire. Each letter was a combination of short and long signals, similarly to the idea of binary encoding of data to be used about a hundred years after in the computer. The telegraph played a big role in the development of commerce in North America. It was succeeded by the teletype, telex, and the fax, that altogether filled a good part of the 20th century. The fax (facsimile) is actually a survivor from the 19th century, although it has gone through several technological transformations to end up in the current computerized form.

The later part of the 20th c. saw the birth of computer-based communication systems. Most prominent ones are electronic mail (email) and electronic bulletin boards, which descended from research labs to the world of business in the 1980s. Both these utilize asynchronous communication, so that the sender and receiver do not interact at the same time. However, email utilizes the push principle the same way postal mail does it: a message pushes into the receiver’s space (email inbox storage). In contrast, electronic bulletin boards rest on the pull principle much like the paper bulletin board does. So, a user is “pulled” to storage of posts (messages) to read them.

The push and pull principles are important because they shape the relationship between message senders and receivers. These principles keep being implemented in communication systems over time. For example, the push principle is implemented in modern chat systems. The difference is that chat works synchronously (the sender and receiver communicate at the same time), while email works asynchronously (there is a time gap between message reception
and the response). The pull principle is implemented in various boards in social media, which a receiver has to visit in order to read the messages posted.

**Telephone**

The telephone is also an old technology. Its inventor actually intended to make a device for assisting persons with hearing problems. As the market did not accept the product, the telephone was then promoted as a technology for broadcasting concerts of the classical music. The market was very limited. Finally, the telephone was placed in bars and then in public booths to serve for communication between individuals. Installations in companies and homes followed the suit.

For decades, the dominating technology was landline telephone that utilized intact, original technical principles. The sender speaks to a microphone that creates analog electrical impulses and transfers these via a wired network to the receiver. An earphone (a tiny speaker) on the receiver’s side converts electrical signals back to sound. A call begins when a circuit is closed between the sender’s and the receiver’s telephone set, which connect through a switching center. Any telephone system is limited in terms of the number of circuits that can be active at the same time.

![Figure 5. A 1896 Telephone from Sweden](image)

The domination of the landline telephone was challenged with the invention of the cellular telephone in the 1970s. The cell phone, is a device that can make and receive telephone calls via radio waves, while the user is moving in space. While the transformations between the voice and electricity are the same in the landline telephone and the cell phone, the latter transfers the signal via radio waves. The air is the transmission medium as it is with the radio and classical television.

The cell phone network consists of receivers and transmitter that cover certain geographical territory. For engineering purposes, the territory is partitioned into units called cells. The term “cell” has been used for naming the technology in North America, while in most of the world the name “mobile telephone” is used. There are links between cell phone networks as well as between a cell phone network and landline telephone networks. These allow for routing a call across cell phone networks as well as for calling a cell phone from a landline phone and reversely.

Several generations of cell phone and various technology standards have been developed, supporting two basic services – voice and text transmission, that is, short messaging service. (Note that the term SMS is used in many countries, while the term “texting” is less known.) The
The number of cell phone users has reached a figure that equals 95% of the global population. This is the fastest saturation of a technology market in history.

The smart phone is a significant improvement over the cell phone since it adds computing capabilities to the cell phone. A transition from the telephone to the smart phone was facilitated by the Personal Digital Assistant (PDA). This device integrated cell phone capabilities with everyday tools, such as calendar, address book, task scheduler, world clock, and calculator. Also, the PDA provided the touch screen user interface. The IBM product shown in Figure 6 had all these features, in addition to being capable of making and receiving cellular phone calls, faxes, and e-mail.

The smart phone can support multimedia message service, Internet access, email, short-range wireless communications (e.g., Bluetooth), some business software (e.g., spreadsheets), gaming, photography, video, music, and more.

In business, both cell and smart phones are used for collaboration, performing some data processing tasks, remote access to information systems, research on the Internet, instruction, customer support, schedule-keeping, access to social media, advertising, broadcasting, and other purposes. Business uses of these phones keeps expanding. The possible uses are only limited by the capabilities of application software (aps) and to some extent on the dimensions of the smart phone screens. Enabling organizational processes that are dispersed in space is one of the most significant impacts that mobile phones make on business. The smart phone is one of technologies that enable mobile enterprises.

Prudent management needs to be aware of potential downsides of cell and smart phones. From the business perspective, security of wireless data transfer tops the list. Securing the transfer via encoding is possible, but the security requires continuous care. Moreover, a significant management issue refers to the blurring borderlines between the business and private time and space associated with heavy uses of cell and smart phones. If the use of these phones is a big part of a company’s culture, the vanishing borderline between the business and private domains may be a challenge for organizational members.

Finally, from the health perspective, a prolonged daily exposure to radio waves (a form of electromagnetic energy) can make a heating impact on a part of human brain. Over years, this impact might eventually cause cancers in the brain and adjacent parts of body. Inflammation in finger joints, digital eye strain, and neck and back problems have also been associated with excessive uses of cell and smart phones. Still, medical evidence is not conclusive since the
occurrence of health problems depends on many factors and these technologies keep improving.

**Internet**

Any technical network is a set of pieces of technology that are connected in a certain way. Technically, these two items are called *node* and *link*. For example, a landline telephone network discussed earlier consists of telephones sets, switching equipment, and wired lines. In a computer network, nodes are computers and links are metal cables, fiber-optic cables, or the air in case of wireless networks. Computer networks are additionally defined by special software and hardware running on the nodes and links.

The Internet is a global computer network based on TCP/IP software. (Note that this network’s name is usually written with the article “the” and the capital “I”.) A peculiar aspect of the Internet is that nodes are local networks, which is indicated in its name – inter-net(work). The Internet is sometimes called a “network of networks.” The special hardware of the Internet includes specialized computers such as routers and gateways. Another necessary piece of hardware is modems that transform analog to digital signals.

The Internet started in the 1970s as a computer network for defense purposes in the United States. At the time, the Internet performed file transfer, electronic mail, and logging into a remote computer for a group of exclusive users. These same functions are preserved to date, enriched with others. In the early 1980s, the Internet was split in two parts – a military network and the other public network for researchers and universities in North America and some other parts the world. In the mid-1990s, the Internet began penetrating businesses and homes and spreading internationally. It scaled up the existing electronic transactions between companies and created the sector of electronic retail; these two areas are today known as business-to-business and business-to-consumer electronic commerce. The Internet penetration has reached one third of the world’s population.

The central part of the Internet is the TCP/IP software. We say that a computer, a smart phone, or a local computer network is on the Internet when these support TCP/IP. This network software processes messages and their routing. TCP/IP makes the Internet a packet-switched network. This means that a message (text, video, voice, any data) is routed through the Internet in small chunks called packets that travel via different routes. At the receiving point, these packets are reassembled into the original message.

To understand better how the Internet works, focus on Figure 7. The sender sends a message that is broken down to four packets (P1, P2, P3, and P4). The numbered nodes represent routers. Let us assume that the Internet is idle, and the packets P1, P2 and P3 are sent via different routes at the same time to speed up the transfer. In other words, the Internet routes work in parallel. However, node 6 gets temporarily non-operational, and so packet P4 is sent via
a route bypassing this node. As all the packets have already been sent, P4 has a clear way and there is no delay in the message transfer.

![Diagram of packet routing on the Internet]

Packet-switching brings significant benefits. First, there is no limit to the number of connections that can be made between senders and receivers. Therefore, the limitation of circuit-switched networks used in the landline telephony is removed. Second, as the packets travel via different routes depending on the conditions of traffic, the network load is balanced better than in the case of messages travelling always via certain routes. This yields (a) better economizing with network resources, (b) a higher transfer speed (no wait times or delays), and (c) a higher reliability of transfer. The last item has to do with initial military assumptions behind the Internet: It was supposed to support communication even in the case of a nuclear war that would destroy the landline telephone network. If some of the Internet lines went down, others could still take over and transfer messages. But what happens with the Internet packets that are not delivered? How does the receiver know if the message received is complete? TCP/IP takes care of these questions.

Although TCP/IP is what distinguishes the Internet from other networks, the Internet software in fact has four layers (refer to Figure 8):

1. Application layer
2. TCP layer
3. IP layer
4. Network layer.

The top layer is the application software. These are some of its key pieces:

- Email transfer supported by software called Simple Mail Transport Protocol (SMTP)
- File transfer via File Transfer Protocol (FTP)
- Remote logon (for logon onto distant computers and working on them)
• Addressing and linking specific content stored on internet nodes via HyperText Transfer Protocol (HTTP); HTTP creates the World Wide Web (Web), essentially the part of the Internet demarcated by HTTP links.

The application layer basically defines what the Internet can do for users. There is cooperation between these different pieces of application software. For example, when a user clicks on a hypertext link referencing an online store, HTTP software on his machine contacts HTTP running on the store’s server. The server sends the content of the store’s home page to the user’s machine (text, images, etc.) via FTP software. But the other three layers of the Internet software also get to work, and particularly the TCP and IP layers. Figure 8 illustrates how they work. In this example, an email message is being transferred.

On the sender’s side, SMTP supports message creation and then it passes it to TCP as if saying “take this message and send it to this email address.” Of course, the message is not any more a readable text but a stream of digital signals. Then, TCP breaks the message into packets and passes these to IP. IP reads the receiver’s Internet address (IP address) and copies it into the header of each packet. IP also pools downstream routers to figure out which one is free to take over the packets. Finally, IP passes the packet to the Network layer that physically puts these on the communication medium (e.g., on a cable).

On the receiver’s side, the software layers work by reversing the tasks and order of operations. The Network layer gets packets off the communication medium and passes them to IP. IP Accepts packets and reports back to the upstream routers which packets are received. IP passes the packets to TCP. TCP puts the packets back together and performs its control function. It checks the packet numbers and sizes, to ensure the reliability of transfer. If any mismatch is detected, the receiver’s TCP asks the sender’s TCP to send again the failed packets. Finally, the TCP presents the whole message to the SMTP software. It restores it back to the original textual format and presents it to the user-receiver. Although this whole Internet-based communication process appears complex, it executes within seconds even at large distances.

The original Internet was made for alphanumerical data (text and numbers). However, graphical and video formats popular today are much more demanding. A packet loss on the Internet reduces the quality of video streaming. This may not be such a big loss if the user is a casual film
watcher. But imagine how this loss can be problematic when a surgeon watches a video of an unfamiliar operation performed in a remote hospital while he is trying to imitate it in a current operation in his hospital. The TCP/IP keeps improving in order to support the demands for such larger and high quality data transfers.

*Wireless Internet*

The Internet can use wireless transmission channels in addition to the original wired ones. Many mobile machines and devices today have the Wireless Fidelity (WiFi) capability enabling them for wireless transfer. A network device called hot spot supports linking a wireless node (a smart phone, a tablet, a laptop) to the wired part of a local network that further links up with an Internet router. The hot spot has antennas used for signal transmission, which can cover the range of over 100 meters. WiFi networks are used to connect to the Internet in companies, airports, hotels, educational institutions, and in homes.

In rural areas, the access point can be a router that links wirelessly to both the network nodes and to the Internet. This is WiMAX technology that can cover a 50 km range. An example of using this sort of access to the Internet is virtual school that was created between Somalia and Canada. A WiMAX router operated on the Somalian side transferring video and other teaching materials between Canada, where the teachers were, and Somalia, the location of students.

*Voice over IP*

Voice over IP (VoIP) is a new capability of the Internet. VoIP brings together telephony and computers in a different way than the smart phone does. With VoIP, computers and the Internet are used as a telephone system. The sender and the receiver use computers, VoIP telephones, smart phones, or landline telephones with signals converted to digital format; the messages travel via the Internet. The messages can be of any format transferable over the Internet – voice, text, graphics, video, etc. All other Internet capabilities apply to VoIP systems as well.

Figure 9 demonstrates how VoIP works. Notice a VoIP phone and a classical phone hooked into a VoIP adapter. These are linked via a modem to the Internet as is the computer. The receiver can get and respond to the calls by deploying equivalent technologies. An example of VoIP by using computers for voice communication is Skype; an example using VoIP on classical telephones is MagicJack made for the home market.

Companies increasingly move from their private telephone systems to VoIP systems for several reasons. Since VoIP uses the packet-switched Internet, there is no limitation to the number of calls that can be made within a company premises at the same time. Costs of owning and operating a landline telephone system are eliminated. In addition, a VoIP system can be easily changed by simply accessing the Internet anywhere in the world. This is possible because each
piece of sending or receiving technology is identified by its IP address. Benefits of convenience and of cost savings result from this capability.

![VoIP configuration](image)

**Figure 9. VoIP configuration**

**Social Network**

As there are computer and telephone networks, there are also social networks. A social network SN can be defined as an informal social gathering based on regular communication. A SN also has *nodes* and *links* (also called *ties*). Nodes are individuals, and a link is a message flow between two nodes. In contrast to the work group as a social form, a SN needs to have a defined task, duration in time, and clear individual roles. What creates a SN is communication – mediated or FtF.

More specifically, a SN exists if

A) messages flow regularly, and

B) the communication actors value the messages.

Condition A implies that messages are exchanged with a certain frequency rather than just sporadically. What keeps a social network together is the links based on regular message flows. It is also important that messages are valued as being important for the communication actors. Messages that keep flowing between people who really do not pay much attention are not really valuable. The frequency of communication can be precisely measured, while the message value is subjective and specific to each individual communication actor.

The two conditions above imply that a social network has to be formed as any other social form does. Remember how a project team is formed through the steps of forming, storming, and
norming. The process by which a social network is formed does not have that clear composition and is much more flexible. But when it results with frequent communication of valued messages, we can say that a social network is born. However, this sort of critical thinking is not seconded by promoters of social media systems and lay people. There is usually a tacit assumption that a social network arises as soon as there is a social media and some people using it.

Members of a social network differ on the number of links and thus the extent of their communication. This is called social network centrality. Some members are more central than others. For example, they can be in the role of hub (Figure 10). The hub is a node through which all links pass, thus interfacing other members who do not communicate directly. Or an SN member can fill the role of communication star (Figure 11). An example is “popular” people gathered around social media (Facebook, LinkedIn, etc.).

Understanding social network centrality is important for utilizing social networks for knowledge management purposes (knowledge sharing), in marketing, or in the process of adopting new IS. For example, the members with a higher centrality may be more effective in sharing professional knowledge or the motivation for adopting a new IS. Also, they may be targeted by marketing contents in an effort to promote new products.

Links in a SN can be created via communication mediated by communication systems. An email system can do the job, but it is not considered to belong to social media. Social media can be defined as Internet-based communication systems designed to support informal communication for socializing purposes.
The expected potential of social media to support the creation of SN is the reason why they are called “social.” This is in contrast to classical news or mass media, such as TV, radio, and press. These are designed for one way informing (broadcasting) performed by specialized news companies. But in reference to the discussion above, keep in mind that just subscribing to a social media does not mean that a person becomes a member of a SN.

Social media are a recent development coinciding with the new millennium. This discussion will cover some of the typical social media – multifunctional Websites, cell phone-focused media, and blogging.

**Social Networking Websites**

A social networking Website is a kind of social media that supports communication for socializing purposes and related functions. Currently, the most known of these is Facebook that started in 2004 and by 2013 has passed the landmark figure of one billion users. Facebook uses various communication systems belonging to the types of electronic bulletin boards and of chat. It also contains functionality for user account management, member circles’ creation, digital photo album, photos’ labeling (“tagging”), votes’ collection (“likes”), and others.

Facebook attracts various age and interest groups mostly for social communication and casual purposes. It also has business-related uses. One is related to advertising that is the key source of Facebook’s revenue. With such a big number of subscribers, social marketing finds its domain on the Facebook. Some studies show that advertisements placed on Facebook are lower on effect measures compared to the Web average ad. However, Facebook maintains rich profiles of its users, based on multiple communication venues, “likes,” and “tagging.” This enables the company to identify a closer match between products and potential customers.

Another business use of Facebook is the hosting of business pages. Companies do this for promotional purposes, which is one step in electronic commerce but still not full trading. Another goal has to do with public relations (PR), that is, managing public perceptions of companies. This Facebook function has created a market for software companies that offer Facebook page maintenance services to small businesses.

Facebook has faced criticism on the grounds of privacy and some adverse social impacts. Examples of the latter are social detachment or mistaking Facebook “friends” for real friends; monetizing socializing needs of users unaware of Facebook’s profit motives; envy aroused through social comparison; and publishing inappropriate content (e.g., photos and text featuring alcoholic beverages). In addition, different parties may use Facebook for different interests. For example, employers may be checking Facebook pages of their employees, which these employees may not be aware of.
There are thousands multifunctional Website-based social media. They are usually focused on shared interest, such as profession, belief systems, and life styles. For example, LinkedIn attracts professionals who publicize their profiles, discuss professional matters, or look for a job.

**Twitter**

Twitter is an Internet-based communication system that connects to cell phone networks and is used for broadcasting short text messages. Due to the length of messages some call it “microblogging” medium. The message sender is a tweet creator, and the receiver is the “follower” in Tweeter’s vocabulary. The number of monthly active users has been growing since the company was founded in 2007, nearing 285 million in the third quarter of 2014.

Twitter has been used in PR and advertising. Some news media have found Twitter to be useful for reporting brief news.

Twitter has also experienced privacy challenges. It is not always clear who the sender’s follower is and what their motives are. Problems with message accuracy and copyright breaches have prompted the company to revise the terms of use several times.

**Blog**

Blog is a Web-based system for self-styled publishing inside and outside organizations. The name comes from the words “Web” and “log.” Blogs are used by various experts and opinion leaders to publicize their views and commentaries. This happens both in organizations and on the wide Internet. For this reason, the blog also belongs to the KWS that were discussed in a preceding chapter. Sometimes a classical news medium runs a blog of their prominent commentators.

Blogs are used for marketing purposes, such as brand management (an example is Adidas). Customer service and PR is another use of blogs (e.g., Winnipeg International Airport).

Anyone can run their own blog for free, since there are public providers of blog software and of the websites where blogs are stored (e.g., Google and WordPress). Blog software allows for easy creation and posting of text. This is word processing functionality accessible via a blog dashboard. Another function is accepting posts created by the readers in response to a blogger’s post. This function may not be enabled; but when it is, it enables two-way communication. Another blog function is summarizing text and sending news to other websites; this is called “syndication.”
Blogging has faced challenges related to protection of intellectual property. In particular, the disclosure of trade secrets has been a sensitive issue. Another issue is accuracy of blogs posts and implications this may have on readers’ action. There are also trade-offs from the blogger perspective. For example, an expert spends some time to publish his/her opinions via blogs but visibility gains are uncertain. Another undesired effect could be a loss of competitive knowledge, which affects both the blogger and the blogger’s host organization.

Questions for Review and Study

1. How is organizational communication different from everyday communication? (Hint: think of the purposes, actors, content, timing, and channels.)

2. What is the relationship between organizational culture and organizational communication?

3. Discuss occupational groups involved in organizational communication. What are the purposes and systems for the communication? (Hint: think of managers, professionals, clerks, marketers, HR staff, etc.).

4. Differentiate between different generations of the telephone.

5. Define a communication system and list two organizational uses of it.

6. What are the main wireless technologies?

7. What is the Internet and why does it matter for business?

8. What is packet switching, and what are its advantages?

9. How does the Internet work? (Hint: focus on the four network layers, including TCP/IP.)

10. What is VoIP and why does it matter from the management perspective?

11. How does a social network come into being? (Hint: focus on the criteria that define a social network.)

12. What is social network centrality? Give an example.

13. Discuss three pros (advantages) and three cons (disadvantages) of specific social media from the standpoint of organizational or individual.

14. Compare and contrast two social media of choice.
15. If you need to perform a task of ________ (fill in), what social media would you use and why? (Hint for fill in: customer relations, advertising, public relations, customer profiling, HR, socializing...)