

10:

*How project
can be
improved*

Project Communications Management

OPENING CASE

Peter Gumpert worked his way up the corporate ladder in a large telecommunications company. He was intelligent, competent, and a strong leader, but a new fiber-optic undersea telecommunications program was much larger and more complicated than anything he had worked on, let alone managed. The undersea telecommunications program consisted of several distinct projects, and Peter was the program manager in charge of overseeing them all. The changing marketplace for undersea telecommunications systems and the large number of projects involved made communications and flexibility critical concerns for Peter. For missing milestone and completion dates, his company would suffer huge financial penalties ranging from thousands of dollars per day for smaller projects to more than \$250,000 per day for larger projects. Many projects depended on the success of other projects, so Peter had to understand and actively manage those critical interfaces.

Peter held several informal and formal discussions with the project managers reporting to him on this program. He worked with them and his project executive assistant, Christine Braun, to develop a communications plan for the program. He was still unsure, however, of the best way to distribute information and manage all of the inevitable changes that would occur. He also wanted to develop consistent ways for all of the project managers to develop their plans and track performance without stifling their creativity and autonomy. Christine suggested that they consider using some new communications technologies to keep important project information up to date and synchronized. Although Peter knew a lot about telecommunications and laying fiber-optic lines, he was not an expert in using information technology to improve the communication process. In fact, that was part of the reason he asked Christine to be his assistant. Could they really develop a process for communicating that would be flexible and easy to use? Time was of the essence as more projects were being added to the undersea telecommunications program every week.

THE IMPORTANCE OF PROJECT COMMUNICATIONS MANAGEMENT *

Many experts agree that the greatest threat to the success of any project, especially information technology projects, is a failure to communicate. Many problems in other knowledge areas, such as an unclear scope or unrealistic schedules, indicate problems with communications. It is crucial for project managers and their teams to make good communications a priority, especially with key stakeholders, like top management.

The information technology field is constantly changing, and these changes bring with them a great deal of technical jargon. When computer professionals have to communicate with non-computer professionals, like most business professionals and senior managers, technical jargon can often complicate matters and confuse those who aren't technically savvy. Even though most people use computers today, the gap between users and developers increases as technology advances. Of course, not every computer professional is a poor communicator, but most people in any field can improve their communication skills.

In addition, most educational systems for information technology graduates promote strong technical skills over strong communication and social skills. Most IT-related degree programs have many technical requirements, but few require courses in communications (speaking, writing, listening), psychology, sociology, and the humanities. People often assume it is easy to pick up these soft skills, but they are important skills and, as such, people must learn and develop them.

Many studies have shown that information technology professionals need these soft skills just as much or even more than other skills. You cannot totally separate technical skills and soft skills when working on information technology projects. For projects to succeed, every project team member needs both types of skills and needs to develop them continuously through formal education and on-the-job training.

An article in the *Journal of Information Systems Education* on the importance of communications skills for information technology professionals presented the following conclusion:

Based on the results of this research we can draw some general conclusions. First, it is evident that IS professionals engage in numerous verbal communication activities that are informal in nature, brief in duration, and with a small number of people at a time. Second, we can infer that most of the communication is indeed verbal in nature but sometimes it is supported by notes or graphs on a board or a handout and also by computer output. Third, it is clear that people expect their peers to listen carefully during a conversation and respond correctly to the issues at hand. Fourth, all IS professionals must be aware of the fact that they will have to engage in some form of informal public speaking.

Fifth, it is evident that IS professionals must be able to communicate effectively in order to be successful in their current position but they must also be able to do so in order to move to higher positions. Since our respondents, on average, seem to have moved throughout their IS career, from lower to higher positions, and they ranked verbal skills more important for their advancement than for their current job, the ability to communicate verbally seems to be a key factor in career advancement.¹

This chapter will highlight key aspects of project communications management, provide some suggestions for improving communications and describe how software can assist in project communications management.

The goal of project communications management is to ensure timely and appropriate generation, collection, dissemination, storage, and disposition of project information. There are four main processes in project communications management:

1. Communications planning involves determining the information and communications needs of the stakeholders: who needs what information, when will they need it, and how will the information be given to them. The output of this process is a communications management plan.
2. Information distribution involves making needed information available to project stakeholders in a timely manner. The main outputs of this process are updates to organizational process assets and requested changes. Recall from Chapter 4 that organizational process assets include formal and informal

plans, policies, procedures, guidelines, information systems, financial systems, management systems, lessons learned, and historical information that help people understand, follow, and improve business processes in a specific organization.

3. Performance reporting involves collecting and disseminating performance information, including status reports, progress measurement, and forecasting. The outputs of this process are performance reports, forecasts, requested changes, recommended corrective actions, and updates to organizational process assets.
4. Managing stakeholders involves managing communications to satisfy the needs and expectations of project stakeholders and to resolve issues. The outputs of this process are resolved issues, approved change requests and corrective actions, and updates to organizational process assets and the project management plan.

Figure 10-1 summarizes these processes and outputs, showing when they occur in a typical project.

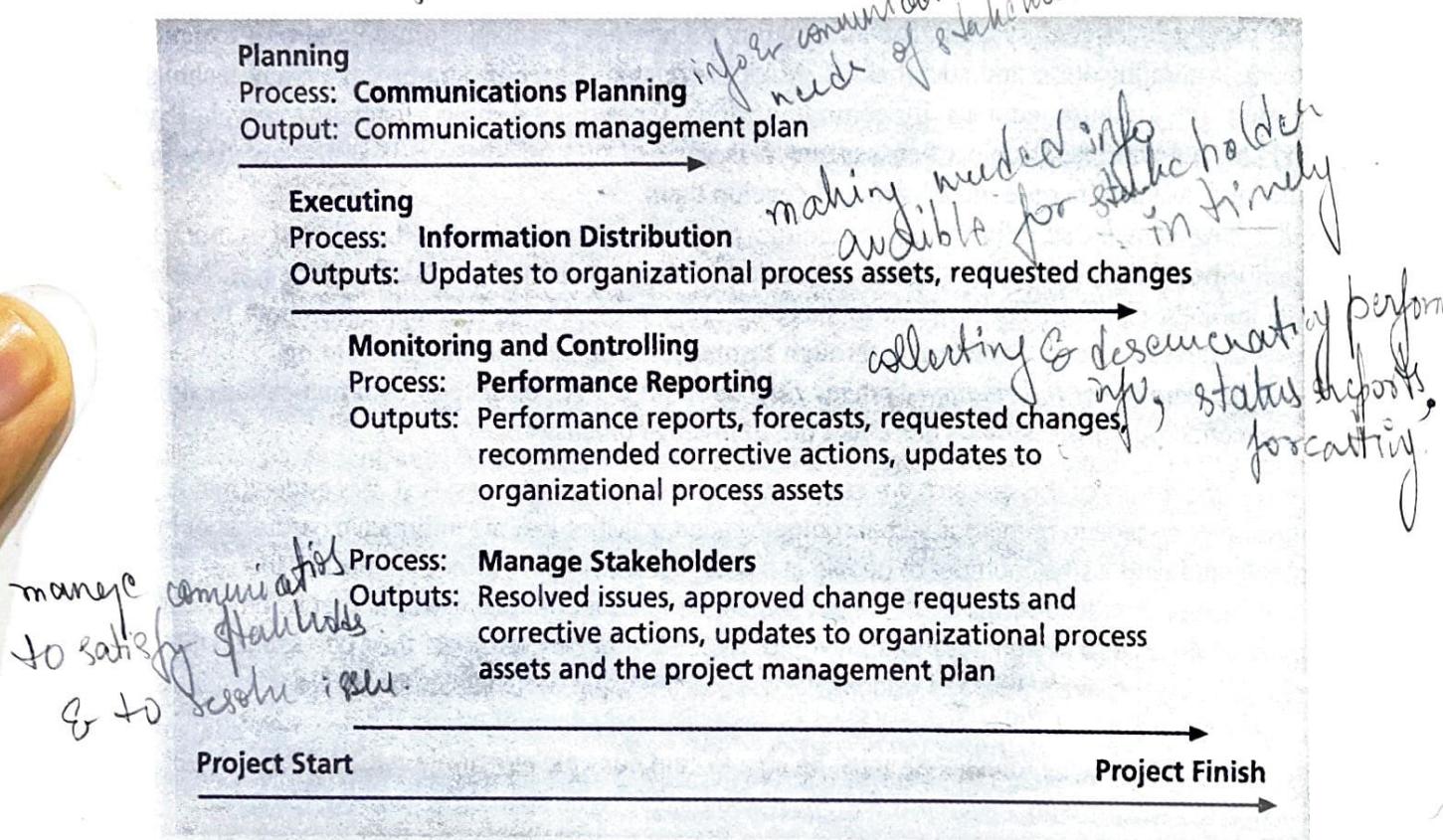


Figure 10-1. Project Communications Management Summary

COMMUNICATIONS PLANNING

Because communication is so important on projects, every project should include a communications management plan—a document that guides project communications. This plan should be part of the overall project management plan (described in Chapter 4, Project Integration Management). The communications management plan will vary with the needs of the project, but some type of written plan should always be prepared. For example, for small projects, such as the Project Management Intranet Site Project described in Chapter 3, the communications management plan can be part of the team contract. The communications management plan should address the following items:

1. Stakeholder communications requirements
2. Information to be communicated, including format, content, and level of detail
3. Who will receive the information and who will produce it
4. Suggested methods or technologies for conveying the information
5. Frequency of communication
6. Escalation procedures for resolving issues
7. Revision procedures for updating the communications management plan
8. A glossary of common terminology

It is important to know what kinds of information will be distributed to which stakeholders. By analyzing stakeholder communications, you can avoid wasting time or money on creating or disseminating unnecessary information. The project's organizational chart is a starting point for identifying internal stakeholders. You must also include key stakeholders outside of the project organization such as the customer, the customer's top management, and subcontractors.

Table 10-1 provides part of a sample stakeholder communications analysis that shows which stakeholders should get which written communications. Note that the stakeholder communications analysis includes information such as the contact person for the information, when the information is due, and the preferred format for the information. You can create a similar table to show which stakeholders should attend which project meetings. It is always a good idea to include comment sections with these types of tables to record special considerations or details related to each stakeholder, document, meeting, and so on. Having stakeholders review and approve all stakeholder communications analysis will ensure that the information is correct and useful.

Table 10-1: Sample Stakeholder Communications Analysis

STAKEHOLDERS	DOCUMENT NAME	DOCUMENT FORMAT	CONTACT PERSON	DUE
Customer management	Monthly status report	Hard copy	Tina Erndt, Tom Silva	First of month
Customer business staff	Monthly status report	Hard copy	Julie Grant, Sergey Cristobal	First of month
Customer technical staff	Monthly status report	E-mail	Li Chau, Nancy Michaels	First of month
Internal management	Monthly status report	Hard copy	Bob Thomson	First of month
Internal business and technical staff	Monthly status report	Intranet	Angie Liu	First of month
Training subcontractor	Training plan	Hard copy	Jonathan Kraus	November 1, 2008
Software subcontractor	Software implementation plan	E-mail	Najwa Gates	June 1, 2008

Comments: Put the titles and dates of documents in e-mail headings and have recipients acknowledge receipt.

Many projects do not include enough initial information on communications. Project managers, top management, and project team members assume using existing communications channels to relay project information is sufficient. The problem with using existing communications channels is that each of these groups (as well as other stakeholders) has different communications needs. Creating some sort of communications management plan and reviewing it with project stakeholders early in a project helps prevent or reduce later communication problems. If organizations work on many projects, developing some consistency in handling project communications helps the organization run smoothly.

Consistent communication helps organizations improve project communications, especially for programs composed of multiple projects. For example, Peter Gumpert, the undersea telecommunications program manager in the opening case, would benefit greatly from having a communications management plan that all of the project managers who report to him help develop and follow. Since several of the projects probably have some of the same stakeholders, it is even more important to develop a coordinated communications management plan. For example, if customers receive status reports from Peter's company that have totally different formats and do not coordinate information from related projects within the same company, they will question the ability of Peter's company to manage large programs.

Information regarding the content of essential project communications comes from the work breakdown structure (WBS). In fact, many WBSs include a section for project communications to ensure that reporting key information is a project deliverable. If reporting essential information is an activity defined in the WBS, it becomes even more important to develop a clear understanding of what project information to report, when to report it, how to report it, who is responsible for generating the report, and so on.

INFORMATION DISTRIBUTION

Getting project information to the right people at the right time and in a useful format is just as important as developing the information in the first place. The stakeholder communications analysis serves as a good starting point for information distribution. Project managers and their teams must decide who receives what information, but they must also decide the best way to distribute the information. Is it sufficient to send written reports for project information? Are meetings alone effective in distributing project information? Are meetings and written communications both required for project information? What is the best way to distribute information to virtual team members?

During project execution, project teams must address important considerations for information distribution, and they often end up updating business processes through improved communications. For example, they might modify policies and procedures, information systems, or incorporate new technologies to improve information distribution. Some aspects of the project might also be changed through formal change requests. For example, Peter Gumpert, the program manager in the opening case, might decide that providing key people on his projects with personal digital assistant devices would enhance communications. He would need to request additional funds to provide these devices and training on how to use them.

After answering key questions related to project communications, project managers and their teams must decide the best way to distribute the information. Important considerations for information distribution include the use of technology, formal and informal communications, and the complexity of communications.

Using Technology to Enhance Information Distribution

Technology can facilitate the process of distributing information, when used properly. Most people and businesses rely on e-mail, instant messaging, Web sites, telephones, cell phones, and other technologies to communicate. Using an internal project management information system, you can organize project documents, meeting minutes, customer requests, and so on, and make them available in an electronic format.

You can store this information in local software or make it available on an intranet, an extranet, or the Internet, if the information is not sensitive. Storing templates and samples of project documents electronically can make accessing standard forms easier, thus making the information distribution process easier. It is also important to have backup procedures in place in case something goes wrong with normal communications technologies. You will learn more about using software to assist in project communications management later in this chapter.

Formal and Informal Methods for Distributing Information *

It is not enough for project team members to submit status reports to their project managers and other stakeholders and assume that everyone who needs to know that information will read the reports. Some technical professionals might assume that submitting the appropriate status reports is sufficient because they are introverts and prefer communicating that way. Occasionally, that approach might work, but many people prefer informal communications. Recall from Chapter 9 that 75 percent of the general population are extroverts, so they enjoy talking to other people. Often, many non-technical professionals—from colleagues to managers—prefer to have a two-way conversation about project information, rather than reading detailed reports, e-mails, or Web pages to try to find pertinent information.

Instead of focusing on getting information by reading technical documents, many colleagues and managers want to know the people working on their projects and develop a trusting relationship with them. They use informal discussions about the project to develop these relationships. Therefore, project managers must be good at nurturing relationships through good communication. Many experts believe that the difference between good project managers and excellent project managers is their ability to nurture relationships and use empathetic listening skills, as described in Chapter 9, Project Human Resource Management.

Effective distribution of information depends on project managers and project team members having good communication skills. Communicating includes many different dimensions such as writing, speaking, and listening, and project personnel need to use all of these dimensions in their daily routines. In addition, different people respond positively to different levels or types of communication. For example, a project sponsor may prefer to stay informed through informal discussions held once a week over coffee. The project manager needs to be aware of and take advantage of this special communication need. The project sponsor will give better feedback about the project during these informal talks than he or she could give through some other form of communication. Informal conversations allow the project sponsor to exercise his or her role of leadership and provide insights and information that are critical to the success of the project and the organization as a whole. Short face-to-face meetings are often more effective than electronic communications, particularly for sensitive information.

Distributing Important Information in an Effective and Timely Manner

Many written reports neglect to provide the important information that good managers and technical people have a knack for asking about. For example, it is important to include detailed technical information that will affect critical performance features of products or services the company is producing as part of a project. It is even more important to document any changes in technical specifications that might affect product performance. For example, if the undersea telecommunications program included a project to purchase and provide special diving gear, and the supplier who provided the oxygen tanks enhanced the tanks so divers could stay under water longer, it would be very important to let other people know about this new capability. The information should not be buried in an attachment with the supplier's new product brochure.

People also have a tendency to not want to report bad information. If the oxygen tank vendor was behind on production, the person in charge of the project to purchase the tanks might wait until the last minute to report this critical information. Oral communication via meetings and informal talks helps bring important information—positive or negative—out into the open.

Oral communication also helps build stronger relationships among project personnel and project stakeholders. People make or break projects, and people like to interact with each other to get a true feeling for how a project is going. Many people cite research that says in a face-to-face interaction, 58 percent of communication is through body language, 35 percent through how the words are said, and a mere 7 percent through the content or words that are spoken. The author of this information (see *Silent Messages* by Albert Mehrabian, 1980) was careful to note that these percentages were specific findings for a specific set of variables. Even if the actual percentages are different in verbal project communications today, it is safe to say that it is important to pay attention to more than just the actual words someone is saying. A person's tone of voice and body language say a lot about how they really feel.

Stand-up meeting
Since information technology projects often require a lot of coordination, it is a good idea to have short, frequent meetings. For example, some information technology project managers require all project personnel to attend a "stand-up" meeting every week or even every morning, depending on the project needs. Stand-up meetings have no chairs, and the lack of chairs forces people to focus on what they really need to communicate. If people can't meet face to face, they are often in constant communications via cell phones, e-mail, instant messaging, or other technologies.

To encourage face-to-face, informal communications, some companies have instituted policies that workers cannot use e-mail between certain hours of the business day or even entire days of the week. For example, in the summer of 2004, Jeremy Burton, vice president of marketing at a large Silicon Valley company, decreed that in his department, Fridays would be e-mail-free. The 240 people in his department had to use the phone or meet face-to-face with people, and violators who did use e-mail were fined.²

Selecting the Appropriate Communications Medium

Table 10-2 provides guidelines from Practical Communications, Inc., a communications consulting firm, about how well different types of media, such as hard copy, phone calls, voice mail, e-mail, meetings, and Web sites, are suited to different communication needs. For example, if you were trying to assess commitment of project stakeholders, a meeting would be the most appropriate medium to use. A phone call would be adequate, but the other media would not be appropriate. Project managers must assess the needs of the organization, the project, and individuals in determining which communication medium to use, and when. They must also be aware of new technologies that can enhance communications and collaboration, as described in the What Went Right?

Table 10-2: Media Choice Table

How Well Medium Is Suited To:	KEY: 1 = EXCELLENT		2 = ADEQUATE		3 = INAPPROPRIATE	
	HARD COPY	PHONE CALL	VOICE MAIL	E-MAIL	MEETING	WEB SITE
Assessing commitment	3	2	3	3	1	3
Building consensus	3	2	3	3	1	3
Mediating a conflict	3	2	3	3	1	3
Resolving a misunderstanding	3	1	3	3	2	3
Addressing negative behavior	3	2	3	2	1	3
Expressing support/appreciation	1	2	2	1	2	3

Table 10-2: Media Choice Table (continued)

HOW WELL MEDIUM IS SUITED TO:	KEY: 1 = EXCELLENT 2 = ADEQUATE 3 = INAPPROPRIATE					
	HARD COPY	PHONE CALL	VOICE MAIL	E-MAIL	MEETING	WEB SITE
Encouraging creative thinking	2	3	3	1	3	3
Making an ironic statement	3	2	2	3	1	3
Conveying a reference document	1	3	3	3	3	2
Reinforcing one's authority	1	2	3	3	1	1
Providing a permanent record	1	3	3	1	3	3
Maintaining confidentiality	2	1	2	3	1	3
Conveying simple information	3	1	1	1	2	3
Asking an informational question	3	1	1	1	3	3
Making a simple request	3	1	1	1	3	3
Giving complex instructions	3	3	2	2	1	2
Addressing many people	2	3 or 1*	2	2	3	1

*Depends on system functionality

Galati, Tess. *Email Composition and Communication (EmC2)*. Practical Communications, Inc. (www.praccomm.com) (2001).

What Went Right?

A 2006 Frost & Sullivan study sponsored by Verizon Business and Microsoft Corp. called "Meetings Around the World: The Impact of Collaboration on Business Performance" found that collaboration is a key driver of overall performance of companies around the world. The impact of collaboration is twice as significant as a company's aggressiveness in pursuing new market opportunities and five times as significant as the external market environment. The study defines collaboration as an interaction between culture and technology such as audio and Web conferencing, e-mail, and instant messaging. The researchers also created a method to specifically measure how collaboration affects business performance.

Of all the collaboration technologies that were studied, three were more commonly present in high-performing companies than in low-performing ones: Web conferencing, audio conferencing, and meeting-scheduler technologies. "This study reveals a powerful new metric business leaders can use to more successfully manage their companies and achieve competitive advantage," said Brian Cotton, a vice president at Frost & Sullivan. "Measuring the quality and capability of collaboration in a given organization presents an opportunity for management to prioritize technology investments, encourage adoption of new tools and open up communications lines for improved collaboration."³

The study also showed that there are regional differences in how people in various countries prefer to communicate with one another. These differences highlight an opportunity for greater cultural understanding to improve collaborative efforts around the world. For example,

- American professionals are more likely to enjoy working alone, and they prefer to send e-mail rather than calling a person or leaving a voice mail message. They are also more comfortable with audio, video, and Web conferencing technologies than people of other regions. In addition, they tend to multitask the most when on conference calls.
- Europeans thrive on teamwork more than their counterparts elsewhere and prefer to interact in real time with other people. They are more likely to feel it is irresponsible not to answer the phone, and they want people to call them back rather than leave a voice mail message.
- Professionals in the Asia-Pacific region, more so than anywhere else, want to be in touch constantly during the workday. As a result, they find the phone to be an indispensable tool and prefer instant messaging to e-mail.

✓ Understanding Group and Individual Communication Needs

Many top managers think they can just add more people to a project that is falling behind schedule. Unfortunately, this approach often causes more setbacks because of the increased complexity of communications. In his popular book, *The Mythical Man-Month*, Frederick Brooks illustrates this concept very clearly. People are not interchangeable parts. You cannot assume that a task originally scheduled to take two months of one person's time can be done in one month by two people. A popular analogy is that you cannot take nine women and produce a baby in one month!

In addition to understanding that people are not interchangeable, it is also important to understand individuals' personal preferences for communications. As described in Chapter 9, people have different personality traits, which often affect their communication preferences. For example, if you want to praise a project team member for doing a good job, an introvert would be more comfortable receiving that praise in private while an extrovert would like everyone to hear about his or her good work. An intuitive person would want to understand how something fits into the big picture, while a sensing person would prefer to have more focused, step-by-step details. A strong thinker would want to know the logic behind information, while a feeling person would want to know how the information affects him or her personally as well as other people. Someone who is a judging person would be very driven to meet deadlines with few reminders while a perceiving person would need more assistance in developing and following plans.

Rarely does the receiver interpret a message exactly as the sender intended. Therefore, it is important to provide many methods of communication and an environment that promotes open dialogue. It is important for project managers and their teams to be aware of their own communication styles and preferences and those of other project stakeholders. As described in the previous chapter, many information technology professionals have different personality traits than the general population, such as being more introverted, intuitive, and oriented to thinking (as opposed to feeling). These personality differences can lead to miscommunication with people who are extroverted, sensation-oriented, and feeling types. For example, a user guide written by an information technology professional might not provide the detailed steps most users need. Many users also prefer face-to-face meetings to learn how to use a new system instead of trying to follow a cryptic user guide.

Geographic location and cultural background also affect the complexity of project communications. If project stakeholders are in different countries, it is often difficult or impossible to schedule times for two-way communication during normal working hours. Language barriers can also cause communication problems. The same word may have very different meanings in different languages. Times, dates, and other units of measure are also interpreted differently. People from some cultures also prefer to communicate in ways that may be uncomfortable to others. For example, managers in some countries still do not allow workers of lower ranks or women to give formal presentations. Some cultures also reserve written documents for binding commitments.

✓ Setting the Stage for Communicating Bad News

It is also important to put information in context, especially if it's bad news. An amusing example of putting bad news in perspective is in the following letter from a college student to her parents. Variations of this letter can be found on numerous Web sites.

Dear Mom and Dad, or should I say Grandma & Grandpa,

Yes, I am pregnant. No, I'm not married yet since Larry, my boyfriend, is out of a job. Larry's employers just don't seem to appreciate the skills he has learned since he quit high school. Larry looks much younger than you, Dad, even though he is three years older. I'm quitting college and getting a job so we can get an apartment before the baby is born. I found a beautiful apartment above a 24-hour auto repair garage with good insulation so the exhaust fumes and noise won't bother us.

I'm very happy. I thought you would be too.

Love, Ashley

P.S. There is no Larry. I'm not pregnant. I'm not getting married. I'm not quitting school, but I am getting a "D" in Chemistry. I just wanted you to have some perspective.

Determining the Number of Communications Channels *

Another important aspect of information distribution is the number of people involved in a project. As the number of people involved increases, the complexity of communications increases because there are more communications channels or pathways through which people can communicate. There is a simple formula for determining the number of communications channels as the number of people involved in a project increases. You can calculate the number of communications channels as follows:

$$\text{number of communications channels} = \frac{n(n-1)}{2}$$

where n is the number of people involved.

For example, two people have one communications channel: $(2(2-1))/2 = 1$. Three people have three channels: $(3(3-1))/2 = 3$. Four people have six channels, five people have 10, and so on. Figure 10-2 illustrates this concept. You can see that as the number of people communicating increases above three, the number of communications channels increases rapidly. Project managers should try to limit the size of teams or sub teams to avoid making communications too complex. For example, if a team of three people are working together on one particular project task, they have three communications channels. If you add two more people to their team, you would have 10 communications channels, an increase of seven. If you added three more people instead of two, you'd have 12 communication channels. You can see how quickly communications becomes more complex as you increase team size.

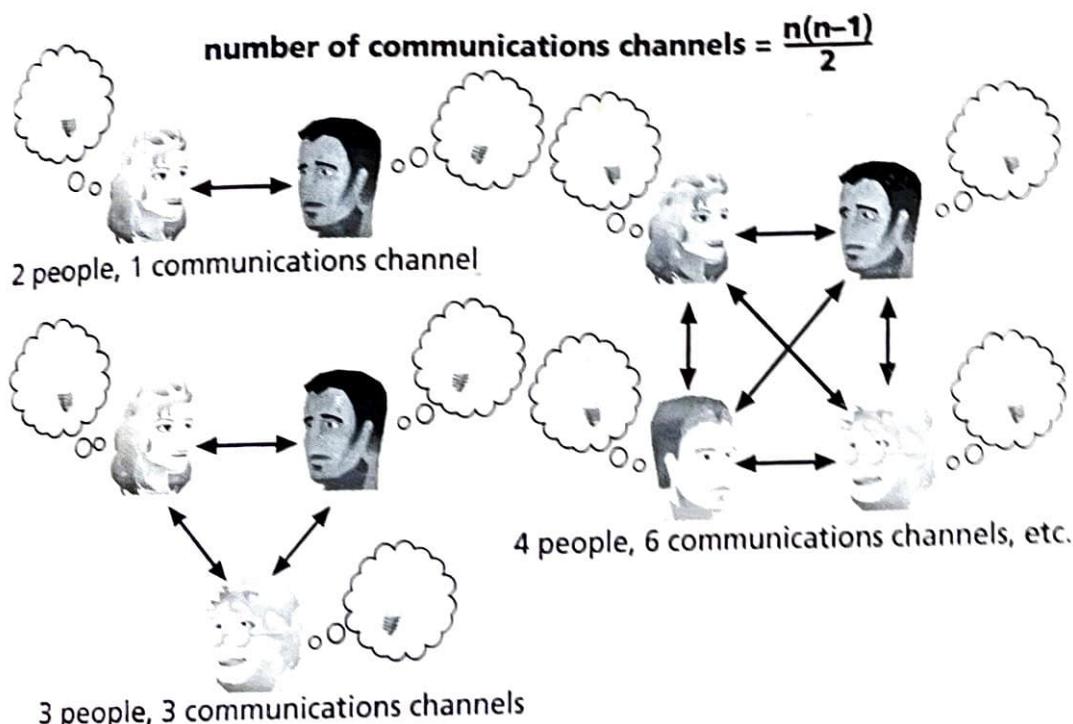


Figure 10-2. The Impact of the Number of People on Communications Channels

Good communicators consider many factors before deciding how to distribute information, including the size of the group, the type of information, and the appropriate communication medium to use. People tend to overuse e-mail because it is an easy, inexpensive way to send information to a lot of people. When asked why you cannot always send an e-mail to a team of 100 people, just as you would to a team of five, one CIO answered, "As a group increases in size, you have a whole slew of management challenges. Communicating badly exponentially increases the possibility of making fatal mistakes. A large-scale project has a lot of moving parts, which makes it that much easier to break down. Communication is the oil that keeps

everything working properly. It's much easier to address an atmosphere of distrust among a group of five team members than it is with a team of 500 members."⁴

However, there are situations in which you cannot have face-to-face meetings and must e-mail a large group of people. Many information technology professionals work on virtual projects where they never meet their project sponsors, other team members, or other project stakeholders. In a virtual project environment, it is crucial for project managers to develop clear communication procedures. They can and must use e-mail, instant messaging, discussion threads, project Web sites, and other technologies to communicate most information. They might be able to use phone calls or other media occasionally, but in general, they must rely on good written communications.

As you can see, information distribution involves more than creating and sending status reports or holding periodic meetings. Many good project managers know their personal strengths and weaknesses in this area and surround themselves with people who complement their skills, just as Peter Gumpert in the opening case did in asking Christine to be his assistant. It is good practice to share the responsibility for project communications management with the entire project team.

PERFORMANCE REPORTING *

Performance reporting keeps stakeholders informed about how resources are being used to achieve project objectives. Work performance information and measurements, forecasted completion dates, quality control measurements, the project management plan, approved change requests, and deliverables are all important inputs to performance reporting. Two key outputs of performance reporting are performance reports and forecasts. Performance reports are normally provided as status reports or progress reports. Many people use the two terms interchangeably, but some people distinguish between them as follows:

- Status reports describe where the project stands at a specific point in time. Recall the importance of the triple constraint. Status reports address where the project stands in terms of meeting scope, time, and cost goals. How much money has been spent to date? How long did it take to do certain tasks? Is work being accomplished as planned? Status reports can take various formats depending on the stakeholders' needs.
- Progress reports describe what the project team has accomplished during a certain period. Many projects have each team member prepare a monthly or sometimes weekly progress report. Team leaders often create consolidated progress reports based on the information received from team members. A sample template for a monthly progress report is provided later in this chapter.

Forecasts predict future project status and progress based on past information and trends. How long will it take to finish the project based on how things are going? How much more money will be needed to complete the project? Project managers can also use earned value management (see Chapter 7, Project Cost Management) to answer these questions by estimating the budget at completion and projected completion date based on how the project is progressing.

Another important technique for performance reporting is the status review meeting. Status review meetings, as described in Chapter 4, Project Integration Management, are a good way to highlight information provided in important project documents, empower people to be accountable for their work, and have face-to-face discussions about important project issues. Many program and project managers hold periodic status review meetings to exchange important project information and motivate people to make progress on their parts of the project. Likewise, many top managers hold monthly or quarterly status review meetings where program and project managers must report overall status information.

Status review meetings sometimes become battlegrounds where conflicts between different parties come to a head. Project managers or higher-level top managers should set ground rules for status review meetings to control the amount of conflict and should work to resolve any potential problems. It is important to remember that project stakeholders should work together to address performance problems.

Table 10-3: Expectations Management Matrix (continued)

MEASURE OF SUCCESS	PRIORITY	EXPECTATIONS	GUIDELINES
ROI Projections	5	The business case for this project projected an ROI of 40% within two years after implementation.	Our finance department will work with the customer to measure the ROI. Meeting/exceeding this projection will help us bring in future business with this and other customers.
Etc.			

5

Another tool to help manage stakeholders is an issue log. An issue is a matter under question or dispute that could impede project success. An issue log is a tool to document and monitor the resolution of project issues. Table 10-4 shows part of an issue log that one of Peter's project managers could use to help document and manage the resolution of issues. The issue log includes columns for the issue number, issue description, impact of the issue on the project, the date the issue was reported and by whom, who the issue resolution was assigned to, the priority of the issue (High, Medium, or Low), the due date to report back on the issue, and comments related to the issue. Project managers can tailor the format of issue logs as needed. It's important to resolve issues as soon as possible, so that the project can proceed through all activities. It's also important not to get too bogged down in issues. Some project managers might choose not to document low-priority issues or small issues that can be resolved without logging them.

Table 10-4: Issue Log

ISSUE #	ISSUE DESCRIPTION	IMPACT ON PROJECT	DATE REPORTED	REPORTED BY	ASSIGNED TO	PRIORITY (M/H/L)	DU DATE	STATUS	COMMENTS
1	Servers cost 10% more than planned	Slight increase in project cost	5/15	Jean	Oded	M	6/15	Closed	The sponsor agreed to provide additional funds to meet the deadline.
2	Two people left the project	Need to reassign personnel	9/26	Gaurav	Karen	H	10/2	Open	If Karen cannot reassign people within a week, she should talk to Peter directly.
Etc.									

Notice that understanding the stakeholders' expectations can help in managing issues. If the project manager knows that cost is not as high a priority as the schedule, he or she will know that it shouldn't be too difficult to ask the project sponsor for needed funds, as long as there is good logic behind the request. Unresolved issues can be a major source of conflict and result in not meeting stakeholder expectations.

SUGGESTIONS FOR IMPROVING PROJECT COMMUNICATIONS

You have seen that good communication is vital to the management and success of information technology projects; you have also learned that project communications management can ensure that essential information reaches the right people at the right time, that feedback and reports are appropriate and useful, and that there is a formalized process of stakeholder management. This section highlights a few areas that all project managers and project team members should consider in their quests to improve project communications.

The text below provides guidelines for managing conflict, developing better communication skills, running effective meetings, using e-mail, instant messaging, and collaborative tools effectively, and using templates for project communications.

Using Communication Skills to Manage Conflict

Most large information technology projects are high-stake endeavors that are highly visible within organizations. They require tremendous effort from team members, are expensive, commandeer significant resources, and can have an extensive impact on the way work is done in an organization. When the stakes are high, conflict is never far away; when the potential for conflict is high, good communication is a necessity.

Chapter 6, Project Time Management, explained that schedule issues cause the most conflicts over the project life cycle and provided suggestions for improving project scheduling. Other conflicts occur over project priorities, staffing, technical issues, administrative procedures, personalities, and cost. It is crucial for project managers to develop and use their human resources and communication skills to help identify and manage conflict on projects. Project managers should lead their teams in developing norms for dealing with various types of conflicts that might arise on their projects. For example, team members should know that disrespectful behavior toward any project stakeholder is inappropriate, and that team members are expected to try to work out small conflicts themselves before elevating them to higher levels. As mentioned earlier in this chapter, escalation procedures should be documented in the communications management plan. Blake and Mouton (1964) delineated five basic modes for handling conflicts: confrontation, compromise, smoothing, forcing, and withdrawal.

1. Confrontation. When using the confrontation mode, project managers directly face a conflict using a problem-solving approach that allows affected parties to work through their disagreements. This approach is also called the problem-solving mode.
2. Compromise. With the compromise mode, project managers use a give-and-take approach to resolving conflicts. They bargain and search for solutions that bring some degree of satisfaction to all the parties in a dispute.
3. Smoothing. When using the smoothing mode, the project manager de-emphasizes or avoids areas of differences and emphasizes areas of agreement.
4. Forcing. The forcing mode can be viewed as the win-lose approach to conflict resolution. Project managers exert their viewpoint at the potential expense of another viewpoint. Managers who are very competitive or autocratic in their management style might favor this approach.
5. Withdrawal. When using the withdrawal mode, project managers retreat or withdraw from an actual or potential disagreement. This approach is the least desirable conflict-handling mode.

Research indicates that project managers favor using confrontation for conflict resolution over the other four modes. The term confrontation may be misleading. This mode really focuses on addressing conflicts using a problem-solving approach. Using Stephen Covey's paradigms of interdependence, this mode focuses on a win-win approach. All parties work together to find the best way to solve the conflict. The next most favored approach to conflict resolution is compromise. Successful project managers are less likely to use smoothing, forcing, or withdrawal than they are to use confrontation or compromise.

Project managers must also realize that not all conflict is bad. In fact, conflict can often be good. Conflict often produces important results, such as new ideas, better alternatives, and motivation to work harder and more collaboratively. Project team members may become stagnant or develop groupthink—conformance to the values or ethical standards of a group—if there are no conflicting viewpoints on various aspects of a project. Research by Karen Jehn, Professor of Management at Wharton, suggests that task-related conflict, which is derived from differences over team objectives and how to achieve them, often improves team performance. Emotional conflict, however, which stems from personality clashes and misunderstandings,

often depresses team performance.⁵ Project managers should create an environment that encourages and maintains the positive and productive aspects of conflict.

Several organizations are emphasizing the importance of conflict management. For example, an innovative program at California State University, Monterey Bay, has incorporated conflict resolution as one of the program's 11 major learning objectives that students must know and understand in order to graduate. The academic program, based at the Institute for Community Collaborative Studies, focuses on preparing students for careers in the field of health and human services. The program's belief is that collaboration is an essential aspect of success for workers in the modern health and human services delivery field. Conflict resolution is a core competency for developing collaboration skills and is important for project managers in any field.

Developing Better Communication Skills

Some people seem to be born with great communication skills. Others seem to have a knack for picking up technical skills. It is rare to find someone with a natural ability for both. Both communication and technical skills, however, can be developed. Most information technology professionals enter the field because of their technical skills. Most find, however, that communication skills are the key to advancing in their careers, especially if they want to become good project managers.

Most companies spend a lot of money on technical training for their employees, even when employees might benefit more from communications training. Individual employees are also more likely to enroll voluntarily in classes on the latest technology than those on developing their soft skills. Communication skills training usually includes role-playing activities in which participants learn concepts such as building rapport, as described in Chapter 9, Project Human Resource Management. Training sessions also give participants a chance to develop specific skills in small groups. Training sessions that focus on presentation skills usually use video to record the participants' presentations. Most people are surprised to see some of their mannerisms on tape and enjoy the challenge of improving their skills. A minimal investment in communication and presentation training can have a tremendous payback to individuals, their projects, and their organizations. These skills also have a much longer shelf life than many of the skills learned in technical training courses.

As organizations become more global, they realize that they must also invest in ways to improve communication with people from different countries and cultures. For example, many Americans are raised to speak their minds, while in some other cultures people are offended by outspokenness. Not understanding how to communicate effectively with other cultures and people of diverse backgrounds hurts projects and businesses. Many training courses are available to educate people in cultural awareness, international business, and international team building.

It takes leadership to help improve communication. If top management lets employees give poor presentations, write sloppy reports, offend people from different cultures, or behave poorly at meetings, the employees will not want to improve their communication skills. Top management must set high expectations and lead by example. Some organizations send all information technology professionals to training that includes development of technical *and* communication skills. Successful organizations allocate time in project schedules for preparing drafts of important reports and presentations and incorporating feedback on the drafts. It is good practice to include time for informal meetings with customers to help develop relationships and provide staff to assist in relationship management. As with any other goal, improving communication can be achieved with proper planning, support, and leadership from top management.

Running Effective Meetings

A well-run meeting can be a vehicle for fostering team building and reinforcing expectations, roles, relationships, and commitment to the project. However, a poorly run meeting can have a detrimental effect on

a project. For example, a terrible kickoff meeting—a meeting held at the beginning of a project or project phase where all major project stakeholders discuss project objectives, plans, and so on—may cause some important stakeholders to decide not to support the project further. Many people complain about the time they waste in unnecessary or poorly planned and poorly executed meetings. Following are some guidelines to help improve time spent at meetings:

- Determine if a meeting can be avoided. Do not have a meeting if there is a better way of achieving the objective at hand. For example, a project manager might know that he or she needs approval from a top manager to hire another person for the project team. It could take a week or longer to schedule even a ten-minute meeting on the top manager's calendar. Instead, an e-mail or phone call describing the situation and justifying the request is a faster, more effective approach than having a meeting. However, many times you do need a face-to-face meeting, and it would not be appropriate to try to use e-mail or a phone call. Consider which medium would be most effective, as described earlier.
- Define the purpose and intended outcome of the meeting. Be specific about what should happen as a result of the meeting. Is the purpose to brainstorm ideas, provide status information, or solve a problem? Make the purpose of a meeting very clear to all meeting planners and participants. For example, if a project manager calls a meeting of all project team members without knowing the true purpose of the meeting, everyone will start focusing on their own agendas and very little will be accomplished. All meetings should have a purpose and intended outcome.
- Determine who should attend the meeting. Do certain stakeholders have to be at a meeting to make it effective? Should only the project team leaders attend a meeting, or should the entire project team be involved? Many meetings are most effective with the minimum number of participants possible, especially if decisions must be made. Other meetings require many attendees. It is important to determine who should attend a meeting based on the purpose and intended outcome of the meeting.
- Provide an agenda to participants before the meeting. Meetings are most effective when the participants come prepared. Did they read reports before the meeting? Did they collect necessary information? Some professionals refuse to attend meetings if they do not have an agenda ahead of time. Insisting on an agenda forces meeting organizers to plan the meeting and gives potential attendees the chance to decide whether they really need to attend the meeting.
- Prepare handouts and visual aids, and make logistical arrangements ahead of time. By creating handouts and visual aids, the meeting organizers must organize their thoughts and ideas. This usually helps the entire meeting run more effectively. It is also important to make logistical arrangements by booking an appropriate room, having necessary equipment available, and providing refreshments or entire meals, if appropriate. It takes time to plan for effective meetings. Project managers and their team members must take time to prepare for meetings, especially important ones with key stakeholders.
- Run the meeting professionally. Introduce people, restate the purpose of the meeting, and state any ground rules that attendees should follow. Have someone facilitate the meeting to make sure important items are discussed, watch the time, encourage participation, summarize key issues, and clarify decisions and action items. Designate someone to take minutes and send the minutes out soon after the meeting. Minutes should be short and focus on the crucial decisions and action items from the meeting.
- Set the ground rules for the meeting. State up front how the meeting will be run. For example, can people speak at will, or will the facilitator lead discussions? Can attendees use their laptops or other electronic devices during the meeting? Don't assume that all meetings are run in the same way. Do what works best in each specific case.
- Build relationships. Depending on the culture of the organization and project, it may help to build relationships by making meetings fun experiences. For example, it may be appropriate to use humor, refreshments, or prizes for good ideas to keep meeting participants actively involved. If used effectively, meetings are a good way to build relationships.

Using E-Mail, Instant Messaging, and Collaborative Tools Effectively *

Since most people use e-mail and other electronic communications tools now, communications should improve, right? Not necessarily. In fact, few people have received any training or guidelines on when or how to use e-mail, instant messaging, or other collaborative tools, such as SharePoint portals or Google documents. As discussed earlier in this chapter, e-mail is not an appropriate medium for several types of communications. The media choice table (Table 10-2) suggests that e-mail is not appropriate for assessing commitment, building consensus, mediating a conflict, resolving a misunderstanding, making an ironic statement, conveying a reference document, reinforcing one's authority, or maintaining confidentiality. The same is true for instant messaging and other electronic communications tools.

Even if people do know when to use e-mail or other tools for project communications, they also need to know how to use it. New features are added to e-mail, instant messaging, and collaborative software programs with every new release, but often users are unaware of these features and do not receive any training on how to use them. Do you know how to organize and file your e-mail messages, or do you have hundreds of e-mail messages sitting in your Inbox? Do you know how to use your address book or how to create distribution lists? Have you ever used sorting features to find e-mail messages by date, author, or key words? Do you use filtering software to prevent spam? Do you know how to share your desktop with instant messaging to teach someone how to use software on your computer? Do you know how to track and incorporate changes in Google documents to create reports and spreadsheets as a collaborative effort? Does everyone on your project team know how to use important features of your SharePoint portal?

Even if you know how to use all the features of these communications systems, you will likely need to learn how to put ideas into words clearly. For example, the subject line for any e-mail messages you write should clearly state the intention of the e-mail. Folder and file names for collaborative projects should be clear and follow file naming conventions, if provided. A business professional that is not a very good writer may prefer to talk to people than to send an e-mail or instant message. Poor writing often leads to misunderstandings and confusion.

Project managers should do whatever they can to help their project stakeholders use e-mail, instant messaging, collaborative tools, or any other communications technologies effectively and not waste time with poor or unclear electronic communications.

The following guidelines will help you use several of these tools more effectively:

- Information sent via e-mail, instant messaging, or a collaborative tool should be appropriate for that medium, versus other media. If you can communicate the information better with a phone call or meeting, for example, then do so.
- Be sure to send the e-mail or instant message to the right people. Do not automatically “reply to all” on an e-mail, for example, if you do not need to.
- Use meaningful subject lines in e-mails so readers can quickly see what information the message will contain. If the entire message can be put in the subject line, put it there. For example, if a meeting is cancelled, just type that in the subject line. Also, do not continue replying to e-mail messages without changing the subject. The subject should always relate to the latest correspondence.
- Limit the content of the e-mail to one main subject. Send a second or third e-mail if it relates to a different subject.
- The body of the e-mail should be as clear and concise as possible and you should always reread your e-mail before you send it. Also, be sure to check your spelling using the spell check function. If you have three questions you need answered, number them as question 1, 2, and 3.
- Limit the number and size of e-mail attachments. If you can include a link to an online version of a document instead of attaching a file, do so.

- Delete e-mail that you do not need to save or respond to. Do not even open e-mail that you know is not important, such as spam. Use the e-mail blocking feature of the software, if available, to block unwanted junk mail.
- Make sure your virus protection software is up to date. Never open e-mail attachments if you do not trust the source.
- Respond to e-mail quickly, if possible. It will take you longer to open and read it again later. In addition, if you send an e-mail that does not require a response, make that clear as well.
- If you need to keep e-mail, file each message appropriately. Create folders with meaningful names to file the e-mail messages you want to keep. File them as soon as possible.
- Learn how to use important features of your e-mail, instant messaging, and collaborative software.
- Most people are comfortable with using e-mail, but some may not be familiar with using instant messaging. Develop a strategy for getting users up to date, and discuss when it's best to use instant messaging versus e-mail.
- Collaborative tools continue to advance. Make sure your team is using a good tool. Many, like Google documents, are available for free.
- Be sure to authorize the right people to share your collaborative documents. Also ensure that other security is in place. Confidential project documents should probably not be stored on Google documents. Use more secure tools when needed.
- Make sure the right person can authorize changes to shared documents and that you back-up files.
- Develop a logical structure for organizing and filing shared documents. Use good file naming conventions for folder and document names.

Best Practice

In June 2006, CIO magazine surveyed information technology executives on their best practices for managing innovation in business. Results include the following:

- When asked what technologies they plan to implement or leverage in the coming year, 54 percent of respondents reported handheld PCs/PDAs as the most important hardware, 56 percent cited Web services as the most important software, and 53 percent cited wireless technologies as the most important Internet technology. All three of these technologies will help organizations improve communications by allowing workers to communicate any time and anywhere.
- When asked which factors are most critical in the decision to go forward with an innovative initiative, 72 percent of respondents reported the urgency of the business need followed by a cost-benefit analysis (57 percent) and the opportunity to increase market share (48 percent). Note the emphasis on using technology to support business needs, as stressed throughout this text.
- When asked what techniques help in developing and executing innovating initiatives, executives surveyed reported cross-functional innovation teams (57 percent), close relationships with customers (52 percent), in-house information technology development (34 percent), rapid prototyping (33 percent), strong partnerships with vendors (32 percent), and project management involving stages and gates (31 percent).⁶

Using Templates for Project Communications

Many intelligent people have a hard time writing a performance report or preparing a 10-minute technical presentation for a customer review. Some people in these situations are too embarrassed to ask for help. To make preparing project communications easier, project managers need to provide examples and templates for common project communications items such as project descriptions, project charters, monthly performance reports, issue logs, and so on. Good documentation from past projects can be an ample source of examples.

Samples and templates of both written and oral reports are particularly helpful for people who have never before had to write project documents or give project presentations. Finding, developing, and sharing relevant templates and sample documents are important tasks for many project managers. Several examples of project documentation such as a business case, project charter, scope statement, stakeholder analysis, WBS, Gantt chart, cost estimate, and so on are provided throughout this text. The companion Web site for this text includes the actual files used in creating the templates for these sample documents. A few of these templates and guidelines for preparing them are provided in this section.

Figure 10-3 shows a sample template for a one-page project description. This form could be used to show a “snapshot” of an entire project on one page. For example, top managers might require that all project managers provide a brief project description as part of a quarterly management review meeting. Peter Gumpert, the program manager in the opening case, might request this type of document from all of the project managers working for him to get an overall picture of what each project involves. According to Figure 10-3, a project description should include the project objective, scope, assumptions, cost information, and schedule information. This template suggests including information from the project’s Gantt chart to highlight key deliverables and other milestones.

Project X Description

Objective: Describe the objective of the project in one or two sentences. Focus on the business benefits of doing the project.

Scope: Briefly describe the scope of the project. What business functions are involved, and what are the main products the project will produce?

Assumptions: Summarize the most critical assumptions for the project.

Cost: Provide the total estimated cost of the project. If desired, list the total cost each year.

Schedule: Provide summary information from the project’s Gantt chart, as shown. Focus on summary tasks and milestones.

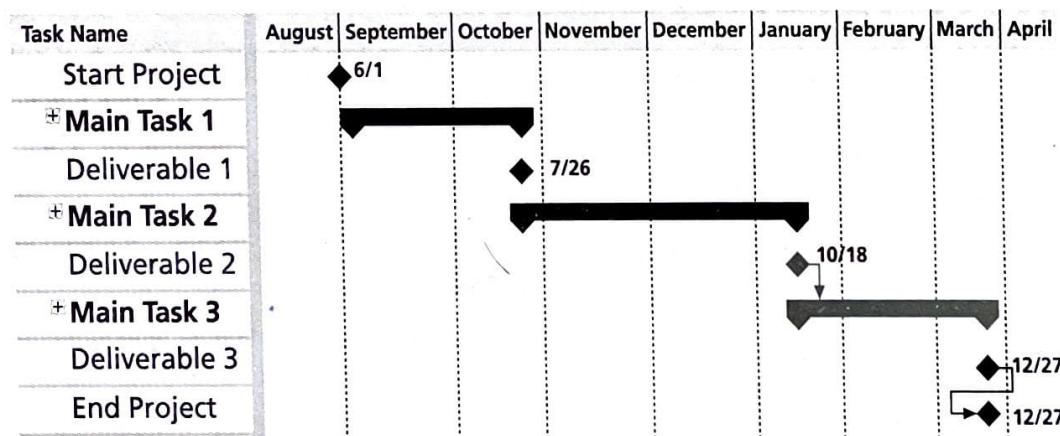


Figure 10-3. Sample Template for a Project Description

Table 10-5 shows a template for a monthly progress report. Sections of the progress report include accomplishments from the current period, plans for the next period, issues, and project changes. Table 3-13 in Chapter 3 provided a sample of a weekly status report that includes similar information. Recall that progress