

the president. Then project the image on the tablet sheet and trace the image with a marker. Another professional touch is to use a computer to print large titles on adhesive labels.

For presentations that will be repeated and that rely on flip charts, consider investing in equipment that creates professional flip-chart pages. This equipment can produce enlarged photocopies, laser output, drawings, and text with color images on easel-pad-size paper for about \$2 a page.

Until you have substantial experience with flip charts—and perhaps even then—practice giving your oral presentation while using the flip chart to coordinate the delivery of text and visual effectively.

Usage

Avoid standing in front of your flip chart, even as you write on it. A pointer can give you distance if necessary. Have a supply of markers available in case colors are unexpectedly needed or a marker runs out of ink. Consider having an audience member do the writing for you, which will free you to lead a discussion. Have plenty of paper available and do not put too much information on a single sheet. Sometimes when sheets are completed, they are posted about the room for reviewing. Companies such as 3M make a flip-chart pad that is similar to stick-on flags: The individual sheets can be stuck on walls without tape or thumbtacks.

Overhead Transparencies

As the size of an audience grows, so does the need for a larger image. One popular and inexpensive medium is the overhead projector. The projector transmits images from a low-cost transparency to a projection screen. Users find the machine quiet, movable, and efficient for large audiences. Most organizations have access to overhead projectors.

Preparation

For a high-quality black-and-white overhead transparency, start with a black original image on white paper and, from that, make the transparency by one of several methods. In one method, the image is photocopied; then, the transparency film is placed over the photocopy and the pair are run through a transparency-making machine. Many machines use infrared technology. Alternatively, the original can be placed on certain photocopiers and transparency film loaded instead of paper. Then the original is transferred directly to the film. Yet another method is to print a computer-prepared visual on a printer loaded with transparency film. This last alternative usually produces the sharpest image of the three techniques.

Computer software packages designed to facilitate presentations ease the burden and much of the expense of preparing overhead transparencies. These packages can automatically put the same border or background color on each visual, sequentially number them, size them appropriately, and allow for easy rearrangement or updating of the visuals. They can incorporate text, symbols, and graphics.

Several options for transparency film exist, including black or color images on clear film and black images on colored film. You can make transparencies of typed or drawn material in minutes with a photocopier, or you can use clear film on which you can write with special pens. If you must prepare or alter a transparency

while it is being projected, use the special pens designed for this purpose. These inexpensive pens are available in both erasable, water-based ink and in permanent ink, both in a variety of colors. Color transparencies from color pictures are available, but they usually suffer in comparison to the originals. Computer programs can create color images and use color printers to print directly onto transparencies.

Key your colors in a series of transparencies to your main topics. Perhaps you will use blue for major topics and green for subthoughts. In this way your audience has a better feel for where you are in the presentation. Used effectively, color can accelerate learning, improve comprehension, and reduce errors. It can attract attention, create moods, and add vitality. You may wish to select colors based on their association in Western culture.

White	for clarity, purity
Red	for stop, hot, or danger
Yellow	for caution, happiness
Green	for growth, money
Dark blue or purple	for royalty

Be inclusive with your color associations; your colors may have different meanings with other cultures represented in your audience.

Some uses of color are to

- Emphasize words or lines
- Distinguish among parts of an illustration
- Show before-and-after changes¹¹

To avoid mismatched foreground colors and background colors, apply the information in Table 3.4. Transparencies carrying text often have too much text. Use the 7-by-7 rule for text transparencies: Limit the number of words per line to seven and the number of lines per page to seven. Another guideline regarding the size of transparency images is to step away from the screen about eight times the distance from the projector to the screen to see if you can read the text. If you cannot, your image size should be increased.

For text transparencies, aim for consistency. For example, your template for a series of transparencies might include main titles in 36-point Helvetica type in all capitals; subpoints could be 24-point Times Roman in capital and lowercase letters, appearing after bullets.

Table 3.4 **Guides for Color Selection**

Background Color	Lettering Color (most readable to least readable)
Light	Black, blue, violet, red, green, orange, yellow
Dark	White, yellow, orange, green, red, blue, violet

Source: Minnesota Western Visual Support Systems, 1991, p. 202.

Consider adding overlays to your transparencies. In this case, the transparency is encased in a frame, and the overlays are then attached to the frame; they are then folded over the main transparency as needed. You may have three or four overlays on one transparency. Overlays may add bars to a bar graph, lines to a line graph, or images to a map. What is added by the overlay can be in color by using transparent colored film. As we will see in the section on computerized slides to follow, this process can be much more professionally delivered with a computer if the equipment is available.

Usage

Most users of overhead projectors quickly master the idiosyncrasies of the machine: move the transparency up to raise the image on the screen, but move it to the left to move the image to the right and vice versa. Most machines have an on-off or off-low illumination-high illumination switch and a knob for focusing the image. As the importance of the presentation increases, so does the need to have a spare bulb or an additional projector; some machines have a spare bulb in an alternate socket inside them.

Learn the correct use of the projector. Follow these guidelines:

- Place the transparency on the projector and then turn on the projector.
- Turn off the projector after the transparency has made its point or move to the next transparency.
- Try to switch from one transparency to the next quickly, because the projector is projecting light. If, however, you need to make comments before the next transparency, turn off the projector, remove the transparency, place the next one, comment, and then turn on the machine.
- Consider using relevant clip art to spice up your transparencies. Possibilities include a corporate logotype, cartoon characters, or drawings of computers or people. The art should be related to the topic.
- Avoid or minimize looking at the projector glass or projection screen. Know the content of the transparency and be able to discuss it without relying on it too much. Keep to a minimum the time you spend reading what your audience can read for themselves.
- Consider pointing to items in a list or locations in a table or figure as you discuss them. Consider using a pen or pencil on the transparency surface as a pointer or using a pointer at the projection screen if you deem that sort of focus is needed.
- Consider using cardboard frames for your transparencies. Tape the frame on top of the transparency—that keeps the transparency as close as possible to the glass. Write notes to yourself on the frames—they cannot be seen by the audience. The order of presentation can be written on the frames too.
- Use a sheet of paper to keep the transparency from being projected and then remove the sheet a bit at a time to disclose your points, such as items in a list. If you place the paper between the glass and the transparency, you will be able to read the portion of the transparency yet to be uncovered.

- If you are right-handed, try to have the projector to your right as you face your audience so that you minimize blocking views when you write on or point to transparencies. This technique also improves your eye contact with the audience.

35-mm Slides

Another popular way to support oral presentations is with 35-mm slides. Slides convey a variety of information, including texts, graphs, and pictures. The slide can be the focal point of the presentation or can support a topic. A drawback to using slides is the requirement that the room be darker than for most other presentations.

One value of a slide presentation that may escape some presenters is its professional image. A study by the 3M Company and the University of Minnesota found that using 35-mm slides for graphics caused viewers to perceive the presentation as more professional.¹² Because of its potential for improving your image, careful planning should go into a slide presentation.

Preparation

Text messages on slides follow the same guidelines as those for textual overhead transparencies, including the 7-by-7 rule.

As you prepare your slides, make a few black slides. These can be used in lieu of shutting off the projector during the presentation and are especially valuable when you are using multiple projectors simultaneously and wish to black out one projector.

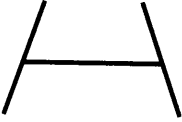
Consider preparing the 35-mm-size images with a computer-presentations software package (as will be discussed soon). Then either mail or electronically transmit the file to an imaging firm that can create your 35-mm slides for you.

In planning your presentation, consider the possibility of outlining your talk for the audience with key words. First, prepare a slide (or slides) with the outline of your talk. Show only major topics. Perhaps you will have seven main topics, ranging from an introduction through conclusions. In addition to the master slide of your outline, make eight more copies. Pick a background color, such as blue, and a foreground color, such as orange. For the first slide, color all words orange. For the next, color the first heading (Introduction) orange and the rest red. Continue through the rest of the slides, moving down the outline. Conclude with another copy of the entire outline in orange on blue as a summary. In presenting your talk, first show your (orange) outline. Then, when you begin the Introduction, show the slide with that heading highlighted in orange. Continue to show your audience where you are as you progress through your talk. In between these slides, insert additional slides as required. The result: a highly structured, clear presentation that will be remembered.

Because even single-projector presentations can become complicated, you may find valuable a storyboarding technique that shows the coordination of slides and voice. If you are using two or more projectors and add music, the storyboard becomes a necessity in planning and a benefit in delivery. Figure 3.23 is a storyboard for a single projector presentation, and Figure 3.24 shows a storyboard for a more complicated presentation.

Figure 3.23

Single Projector Storyboard

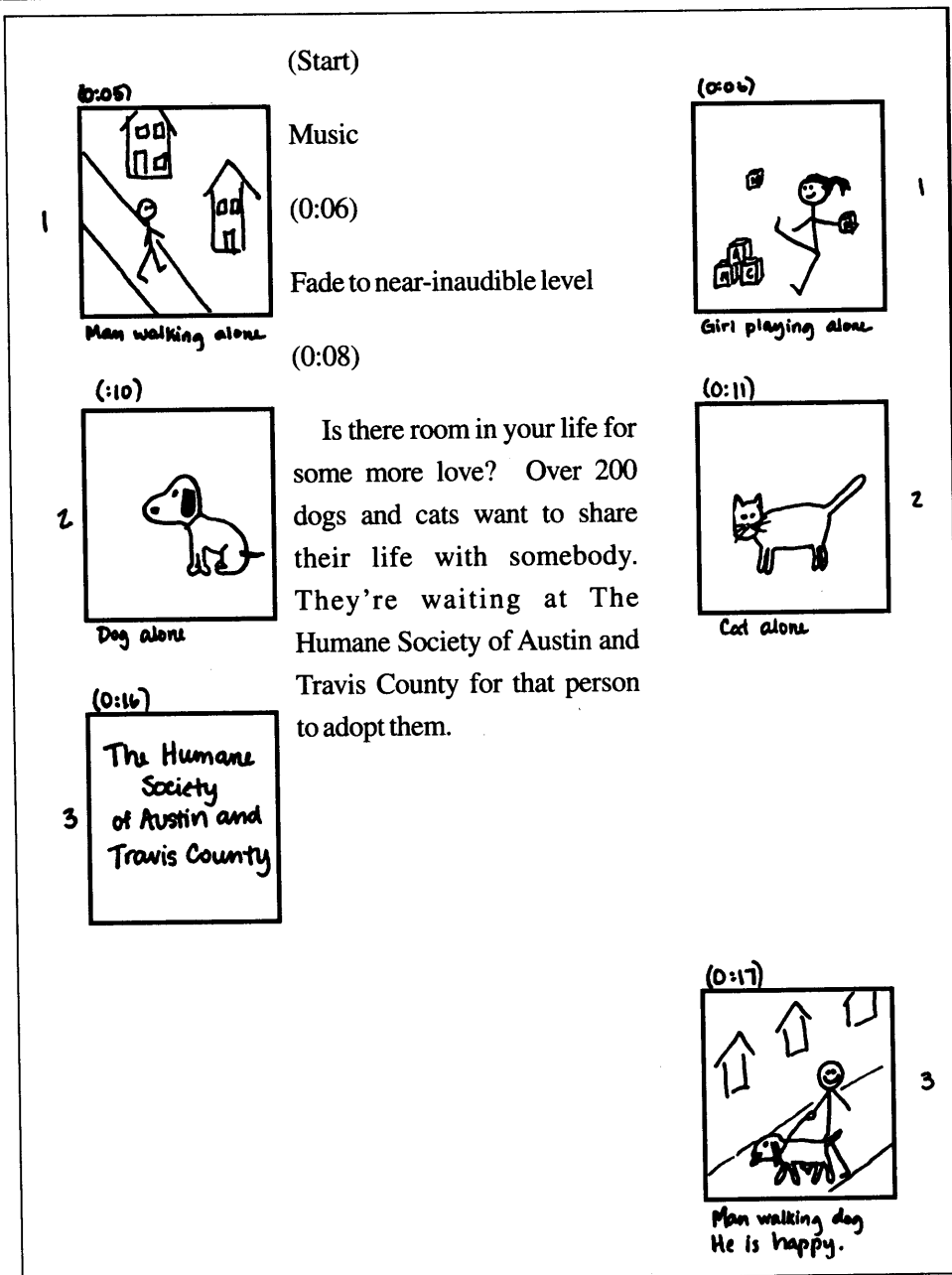
TITLE: CABLEVISION: THE INSIDE STORY		Page 1 of 12
VISUAL	AUDIO	
<p>text slides have blue background</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">CABLEVISION</p> <p style="text-align: center;">The Inside Story</p> </div> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">  HORIZON CABLEVISION </p> </div>	<p>Music is "Stargazer"</p> <p>0:12 (time of frame)</p> <p>Cable television has evolved with telecommunications and satellite technological advancements to the point where, today, 42 million people in the United States enjoy cable service.</p> <p>0:12 (total time)</p> <p>0:15</p> <p>This program is presented by Horizon Cablevision to familiarize you with how this technology works and what it offers our community.</p> <p>0:27</p>	

Source: Courtesy of Mark Baird.

In planning your slide presentation, keep in mind that your audience grasps the point of a slide quickly. Change your slides often. A two-projector, five-minute presentation might easily consume 100 or more slides.

Figure 3.24

Double Projector Storyboard



Source: Courtesy of Laura Nichols.

Usage

Learn the operation of the projector well before your presentation: Know how to focus, how to advance and reverse slides, and how to replace a bulb. Also pay attention to how the slides enter the projector. Many presentations have fallen victim to slides entered backwards or upside down. Look into increasingly sophisticated presentations as your needs grow, such as multiple projectors, fading in and out, and coordination with music or narration on several screens.

Computerized Visuals

Computers have emerged as a quick, easy, and inexpensive way to develop messages for other media, such as overhead transparencies. They have also become a medium unto themselves. In retail stores, training situations, displays, shopping-mall kiosks, classrooms, and laboratories, computers present a programmed series of “slides” on computer screens. Such slide shows can be especially beneficial in business presentations. Readily available presentation software, a portable computer, and a computer-image projection system now combine to form a portable unit capable of flashy, professional messages.

A computerized presentation in which the presenter prepares a series of slides, adds photos, graphs, audio and/or video clips, arrows, or clip art, incorporates fancy transitions from slide to slide, and adds movement by building a list item-by-item is so common that it is expected from many businesspeople and classroom instructors. Software packages such as PowerPoint facilitate development of professional, colorful, and stimulating presentations. Further discussion of these presentations appears in Chapter 11. To be consistent with the discussions of other forms of visual support preparation and usage already delivered, we do highlight some suggestions here.

Preparation

Most computer slide presentations require developing a series of slides and then ordering and timing the slides. Individual slides may include text, graphs, still pictures, clip art, sound, video, or any combination. To develop text slides, follow these steps:

1. Select a background image and slide layout (template).
2. Select colors for text, foreground, and background.
3. Type in the text in outline form.
4. Pick a “build” effect for emerging items in a list.
5. Add flourishes, such as clip art or graphs, as appropriate.
6. Choose a transition to the next slide.

Clip art picture or symbol libraries, which may be part of a presentation software package or a stand-alone package, supply popular or difficult-to-draw pictures, old photos, cartoons, or audio or video clips. A user can search the library for a desired picture, select the picture, enlarge or reduce it, and add shading or patterns if desired. Libraries can be specialized, such as for computers or new technology (see Figure 3.25). Of course, huge amounts of supporting images, sounds, and motion can be found on the World Wide Web. As long as it is not gimmicky, the addition

Figure 3.25 Clip Art



of a well-known voice saying something relevant or of a striking photo can add a professional feel.

When deciding which addition to use, ensure that it relates to your topic, matches the mood, and is compatible with other art and slides in your presentation.

Other hints for preparing computerized slide presentations include

- Consider having a blank slide in a single color with no images as your first slide.

- Start with a title slide.
- Consider a text slide with the outline of your presentation.
- Think about the inclusion of a concept slide.¹³
- Use graphs to help in visualizing tabular data.
- Select charts, diagrams, or photos for variety.
- Consider an occasional one-, two-, or three-word text slide for impact.
- Avoid too many text slides with lists.
- Each slide should have one—and only one—dominant visual effect that provides a starting point for the audience’s eyes.
- Use color creatively.
- Avoid pictorial clichés and avoid animation overload.
- Add a conclusions slide that pulls together the main topic of the presentation.
- Seek a feeling of consistency for the entire presentation.
- End with a blank slide like your first one, or one that says “Thank you” or “Questions?”¹⁴

Usage

Computerized slide shows can demand attention, manage the information flow, and create a professional tone. However, they can also be boring, disorganized, or plagued by technical problems. Here are some usage suggestions:

- Keep the attention upon yourself and let the presentation support what you have to say; don’t be left out of your own presentation.
- Be unobtrusive in your computer interaction during the presentation.
- Consider putting the presentation in automatic mode in which each slide (and even each item in a list) is assigned a specific and predetermined amount of exposure time.
- Don’t leave simple, one-, two-, or three-word impact slides on the screen too long.
- Avoid reading what appears on the screen to the audience; paraphrase the thought.
- Consider using a remote control to forward (and perhaps reverse) the slides.
- Use the “rehearsal” option in some software to practice and perfect your timing.
- Explore the Internet for fresh templates, drawings, or photos—often at no cost.
- Anticipate problems. Consider having a backup of your presentation already prepared as 35-mm slides or overhead transparencies. The more important the presentation, the more crucial the backup.
- Seek a balance of slide types. Avoid a presentation of text-only slides. Work in graphs, drawings, photographs, or other nontext slides if possible. Audiences tire quickly of bulleted, text-only sides even when well prepared and enlivened with animation.
- Prepare a “concept” slide, if appropriate, that captures the main points of the presentation and can show individual parts, the process, or thoughts along the way. Such a slide might be a stylized drawing, a chart, or an acronym.

Videotape

In the past 25 years, videotape usage has moved from an expensive, moderate-quality, black-and-white image to an inexpensive, high-quality, color image. Professional color cameras and studio-quality productions are still expensive, but the handheld camera and individual videotapes have become inexpensive. Many firms, such as travel agencies, real-estate brokers, and producers of computer software distribute free videotapes of their products or services. As with other media, videotapes as part of business presentations require planning and experience.

Planning and Execution

Table 3.5 compares the seven media just discussed and lists their strengths and weaknesses.

The visual and verbal portions of a presentation should support each other as part of one package.

1. Define your topic. As discussed in the chapters on making presentations and delivering case analyses, you must first determine what topic you will be addressing.
2. Determine audience characteristics. Find out about your audience (characteristics, attitudes, and so on), and what they expect from your presentation. How are they likely to respond?
3. Set learning objectives or goals. What do you want your presentation to accomplish? Awarding of a contract, development of a new product, expansion into a new market, or expanding of personnel? The information should be geared toward accomplishing observable, measurable objectives.
4. Prepare the verbal content of the presentation. Many people prefer to outline their verbal presentation first.
5. Add the visual support. Add visual support where it would enhance your verbal presentation.
6. Pretest the package. Run through your presentation to make sure it is clear and accomplishes your goals. Practicing an oral presentation with all components in place, including the visual support, prevents awkward fumbling at a meeting. Bring in peers for their reactions and modify as necessary. Check your timing. Are you within any imposed time constraints?
7. Execute your presentation. Deliver your report, presentation, or case analysis.
8. Evaluate your performance. How well did you do? What could have been improved if you had it to do over? What did you learn? Did some things work especially well?

Some Additional Hints

Here are some additional hints to help improve your visual support.

Color

Adding color to chalkboards, handouts, 35-mm slides, computerized slide shows, or overhead transparencies can grab the audience's attention and, if used correctly,

Table 3.5 Media Selection Guide

Medium	Audience Size	Formality	Strengths	Weaknesses	Cost
Paper	No limit	Formal	Inexpensive, flexible	Preparation required	Inexpensive
Flip charts	10–15	Informal	Inexpensive, flexible	Can be hard to read	Inexpensive
Overhead transparencies	100	Informal	Inexpensive, focuses attention	Easy to misuse; poor presentation skills	Inexpensive
Slides	Several hundred	Formal	Strong impact	Dark room required; preparation required	Moderately expensive
Blackboards	15–25	Informal	Inexpensive, flexible	Color seldom used effectively	Inexpensive
Computers	3–5 at a time (without projection capability)	Informal	Current, flexible, easy to use	Expensive; can appear childish	Expensive for hardware; software inexpensive
	100 (with projection) multi-media capable	Either	Focuses attention, flexible	Takes time and expertise	Projection system can be expensive
Videotape	15–25 with single monitor	Varies with topic	Shows motion, can be quite professional	Limited audience size; no interaction	Can be expensive

increase comprehension and understanding. However, colors can also detract from the message and even confuse or offend the viewer. In addition to the earlier comments about color, keep these hints in mind:

- Match the color to the presentation and to the audience. Members of the board of directors expect different colors than would be appropriate at a Cub Scout meeting or a garage-sale announcement.
- Arrange heavier colors, such as blues and greens, at the bottom of illustrations, if possible, and move upward to lighter colors.
- Use colors in moderation. Limit the total number of colors to six.
- Select bright colors for special effects.
- Pick contrasting colors to set ideas apart.
- Choose shades of the same color to group items.
- Be aware of cultural differences in meanings of color.

Simplicity

Whether you prepare a graphical design, a text chart, or an entire presentation, keep it simple. Too many colors, too much clutter, excessive words, too many bars or pie slices, or too many numbers overwhelm the viewer. In a study by the University of Minnesota on graphics, researchers learned that the simple presentation works best.¹⁵ As computers increasingly are used to design illustrations, it becomes easy to add textures, patterns, and colors to graph bars and slices—but be wary. Tufte calls the overabundance of visual distinguishers “chartjunk.”¹⁶ Most of the figures in this chapter represent simple presentations.

Repress the desire to fill an illustration with too much information. Use graphs to show trends and rely on tables when specificity is needed. As the data become more complicated, consider a series of graphs to depict the information.

Professionalism

The quality of the visual images supporting your oral presentations will enhance or detract from your professional image. Therefore, in addition to presenting data accurately, make sure it looks good. When the message is an important one and the visuals are not satisfactory, call in experts. Be aware, however, that many artists, designers, and media technologists are not familiar with the principle of visual integrity; you must make sure that the final image is appropriate and not just professional looking.

In oral presentations, it is important to keep your talk moving; all too often, the visuals become the centerpiece instead of support. If a lot of time must be spent discussing a single illustration, it probably should have been distributed prior to the talk.

Visuals are no place for misspellings, too much jargon, too many acronyms, or heavy reliance on passive voice. Further, ensure both word and nonword elements do not embarrass, belittle, or ridicule any member of the audience.

The Environment

Before making your presentation, become familiar with the environment. You should learn about the equipment and the availability of backup bulbs, chalk, computers, and projectors. Know the location of electrical outlets, light switches, microphone outlets, and controls for lowering and raising screens and adjusting amplifier volumes. You need to plan ahead if extension cords or three-prong adapters are needed. You may also need to arrive early to arrange chairs, erase blackboards, distribute handouts, or set up screens or flip charts.

You may also wish to know the location of the controls for dimming lights or adjusting air-conditioning. Dimmed lights can focus attention on the screen even if darkness is not required. You may also need to know how to adjust window blinds to darken a room. An overheated meeting room distracts your audience; consider lowering the room’s temperature just before the meeting begins. Conversely, a noisy ventilation system also can detract from your presentation. In that situation, cool the room first and then shut off the system for your talk.

Business Graphics Checklist

Sometimes the best way to ensure that you are abiding by the many rules for the preparation of business graphics is to follow a checklist. One such checklist, prepared by the Information Center Institute, appears in Figure 3.26.

The Information Center Institute Checklist for justifying business graphics

Computer graphics cover a lot of ground—business, engineering, manufacturing, medicine, and the arts. And the software applications to accomplish the various tasks in these fields are burgeoning at an ever-increasing rate.

The question now no longer seems to be will computer graphics help the business organization, but how much will they help and how will we measure it? In other words, how can we justify the increased use of computer graphic systems? What questions should be asked in order to start the justification process for the use of these systems? The following checklist is designed as a way to begin thinking about this process. A careful definition and understanding of needs will go a long way toward providing the information needed for justifying these graphics systems.

After determining user attitudes, especially those of management, the types of graphics needed for your situation, and the measurable and nonmeasurable costs and benefits, you will be much better prepared for the process of justifying the purchases of new graphics systems or the improvement of existing ones, and better equipped to decide on the kinds of hardware and software systems that you will need.

Note: For analysis, the estimates of the costs as well as the benefits should be divided into two categories: one-time and recurring.

No.	Item	Yes	No	N/A	Comments
Management Attitudes					
1.	Is management interested in graphic rather than tabular presentations for decision-making tasks?				
2.	Is management comfortable with graphic presentations for spotting trends and making forecasts?				
3.	Is management satisfied with the quality, scale, and accuracy of graphs produced in the past?				
4.	Will management place a value on the availability of better graphics?				
Use of Graphics Systems					
5.	Are business graphics desired primarily for: a. presentation of information for discussion and decision? b. summary and display of large quantities of information?				
6.	Are graphics applications already used for: a. observing statistical relationships and variable interactions? b. display of engineering results and designs?				
7.	Is there interest in image generation for: a. visualization of planned objects? b. illustration of presentation slides? c. eye-catching figures to include in presentations?				
8.	Have cost comparisons been made for: a. microcomputer-generated graphics? b. mainframe-generated graphics? c. graphics produced by specialized hardware? d. hand-generated graphics for comparison?				

Figure 3.26

Checklist for Justifying Business Graphics (Concluded)

No.	Item	Yes	No	N/A	Comments
Uses of Graphics Systems cont'd.					
9.	Have costs been analyzed for downloading prepared files to minicomputers or microcomputers for graphic production?				
10.	Will the graphics costs be absorbed by information services or charged back to the users?				
11.	Have cost calculations for any software included the cost of needed modifications and extensions? Is the price of the graphics package competitive with similar packages when modifications and extensions are considered?				
12.	Are the total costs, including extra features, modifications, and maintenance, likely to remain within the budget limitations for the next three years?				
13.	Will overall costs be lowered by: a. reducing graphics production expenses? b. reducing graphics maintenance expenses? c. reducing manual effort and clerical expenses? d. reducing communications expenses?				
14.	Will controlling production costs reduce operational expenses?				
15.	Will there be faster turnaround for clients at same or reduced costs?				
16.	Will certain costs be avoided by: a. making personnel available for other work? b. employing fewer people for graphics production?				
17.	Can profit increases be estimated for: a. providing graphics for management? b. providing graphics for customers/clients? c. providing faster reaction and turnaround times? d. Improving the use of resources?				
Intangible Benefits					
18.	Is there value in reducing errors that result in the manual production of graphics?				
19.	Is there value in having more checks and controls on designs and displays?				
20.	Are there operational cost advantages in the sharing of graphical information between files?				
21.	Are there operational cost advantages in improved planning and scheduling through the use of graphics?				
22.	Can a value be estimated for the reduction of problems and complaints?				
23.	Is there a business advantage in the improved timeliness of graphics production?				
24.	Can financial benefits be estimated for: a. improved business analysis? b. improved business control? c. improved responsiveness to customers?				

Source: Information Center Institute, a division of Chantico Publishing Co., Inc.

Summary

In many ways, visual support can have a greater impact than the spoken or written communication it assists. However, you need to know how to correctly use visual support to make it valuable. Support should be clear, precise, and efficient and reflect integrity with what it represents. Knowledge of design considerations such as emphasis, unity, balance, scale, shade and color, and texture and pattern improves the process. You also need to know the type of visuals from which to select. Major types include tables; graphs; charts, drawings, and diagrams; maps; photos; and text. Each has rules for its preparation.

Some people overuse or misuse visual support. To test your decision on including support, ask yourself whether it is efficient and effective and creates impact. Valuable support should accomplish at least one of these three goals.

Presenters can choose from many media for oral and written delivery: paper, flip charts, overhead transparencies, slides, blackboards, computers, and videotapes. A system of planning and evaluation will assist your execution, as will review of the hints that conclude this chapter.

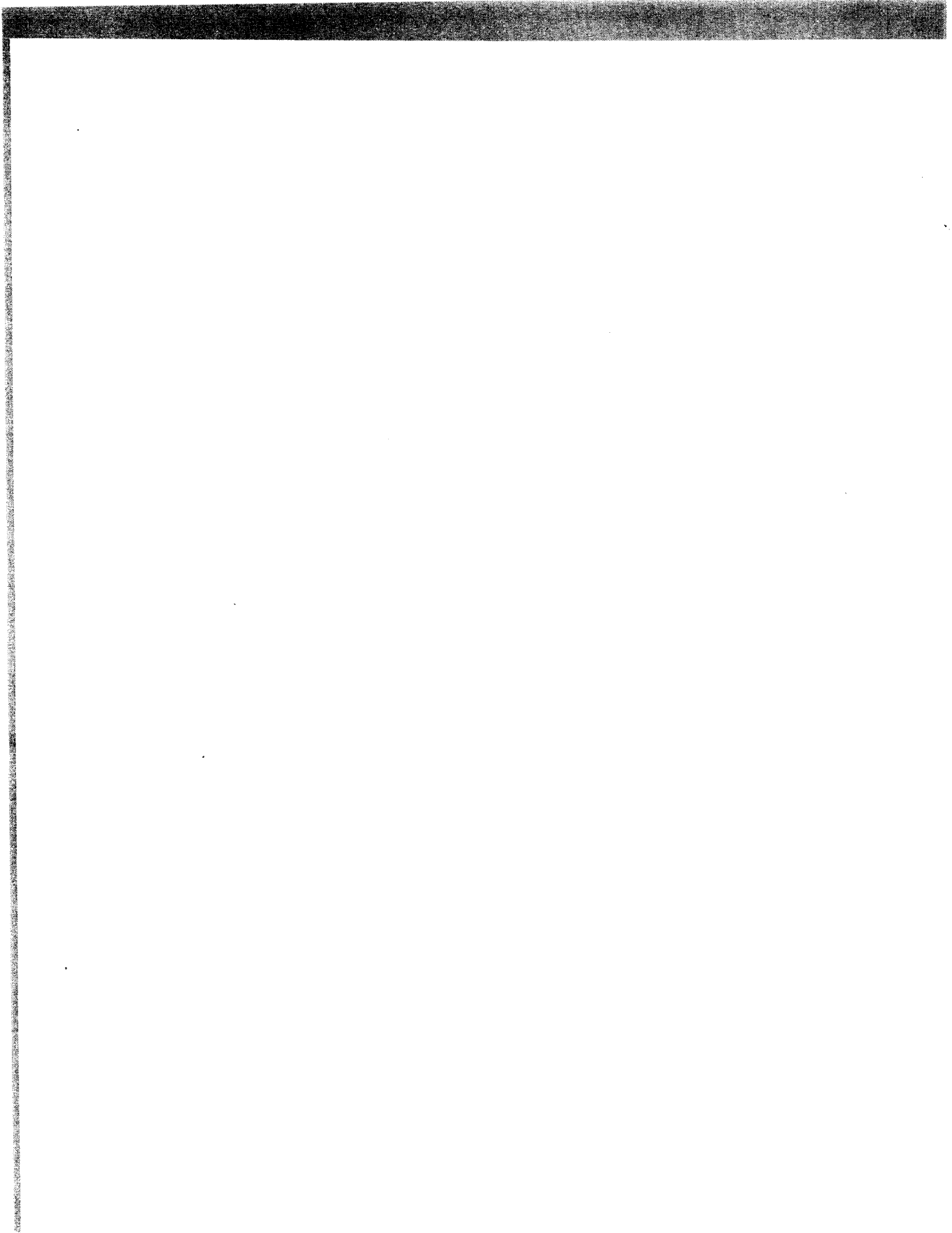
Discussion Questions

1. What is the 7-by-7 rule? Discuss the concept with your classmates. Does the rule make sense? How much latitude is there? Does it vary by medium? Does it apply equally to flip charts, 35-mm slides, transparencies, and electronic slides?
2. Usually it is best to arrange vertical bars that have no inherent order in some order, such as of increasing or decreasing height. If you have a series of bar graphs, all with the same items as vertical bars, would you select one order for all graphs for consistency, or would you arrange each individual graph for some logical flow? Why?
3. We define graphs as data plotted on an axis, yet Microsoft Excel calls such images "charts." Why do you think they use the alternative term? Who is correct? Does it make a difference which is correct?
4. What are the best applications of pie charts? Would the same data plotted as a bar or line graph be better?
5. Is it better for the data lines in a line graph to start against the Y-axis or moved to the right? Does your graphics software package give you a choice?

Communication in Action

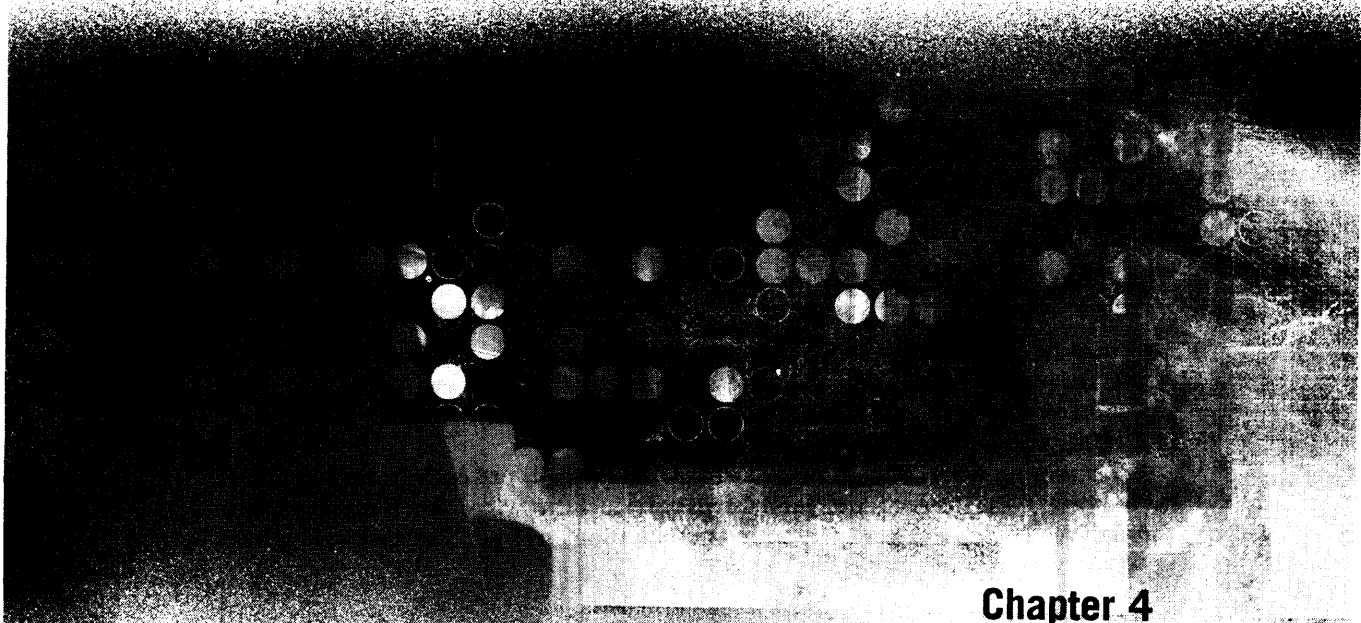
1. How would you apply the principles of graphic excellence if you needed to prepare a visual support element with the following data? Prepare the element.

	Year 1	Year 2	Year 3	Year 4
Net sales (\$ millions)				
Compared to previous year				
Product #1	-1.75	-3.04	4.20	6.31
Product #2	-2.00	2.12	10.11	30.71



Part Two

Written Communication: Brief Messages



Chapter 4
**A Strategic Process for Effective
Managerial Writing**

Chapter 5
Writing Direct Messages

Chapter 6
Writing Indirect Messages

Chapter 7
Writing Situational Messages

A Strategic Process for Effective Managerial Writing

Effective writing has certain characteristics. Some of these characteristics relate to the overall writing process, such as conceptualizing, researching, drafting, and revising. Other characteristics focus specifically on formal features, such as organization, tone, and readability. In this chapter, we will examine both of these approaches to the writing process.

The Overall Writing Sequence

You may be surprised to know how many people start writing without knowing where they are heading. Perhaps the assumption is that they will figure out their direction as they wander through various thoughts. In order to achieve efficiency and clarity of writing, however, avoid this method.

Most writing goes through many steps. Usually, the more complicated, lengthy, or important the project, the more steps you include. Here are the eight steps through which most of your written communications will go. The order is typical; however, you may relocate some steps.

1. Define your problem.
2. Determine and analyze your audience.
3. Do your research.
4. Consider your layout, format, and elements.
5. Draft your project.
6. Revise, edit, and proof the written copy.
7. Produce the finished package.
8. Conduct a postwriting evaluation.

At various times in your college and business careers, you will probably place more effort or emphasis on some of these steps than on others. For example, as a first-year composition student, you may have wrestled with finding a topic and defining it. Later in college, you no doubt prepared a paper that called on you to do research. As a middle manager, you may not prepare the finished version of a report, which upper managers do, but you write the initial draft. As a top manager, you will revise and edit the work of others. Nevertheless, each of these steps plays an important part in effective business writing, and each deserves examination.

Define Your Problem

When a superior gives you a writing project, you are to cover. No doubt you have a specific goal or purpose for the assignment. Occasionally, however, your assignment will be vague. For example, how would you react to these written directions from your boss if you were in the management consulting division of a major public accounting firm?

Sorry not to be able to give you more lead time, but by the time you read this I'll be in Madrid working on a hot project. This trip will keep me from completing the proposal for Nelson National Bank that's due this Friday. I've been working on it alone, although Bill and Tracy supplied some data. I want you to finish it and submit it to Nelson by the deadline. This package could be quite lucrative for us now and in the long term.

In the attached folder are most of the supporting materials and my text so far. My assistant, Phyllis, typed and formatted a proposal something like this once before, and you can ask her to work on this one.

Wish I could be more available to help you on this. See you a week from Wednesday.

Your assignment is to prepare the proposal. To know how to accomplish that, however, you need to know topic-oriented answers to questions such as these:

- What are we proposing?
- What (and who) is Nelson National Bank?
- What level of profit do we seek now and in the future?
- What is the time period reflected by the proposal?

In determining your approach, you'll also want to know:

- How would your boss write the proposal?
- How badly does your boss want the contract?

Answers to these questions would guide you in approaching this assignment. Clearly, you would be wise to know your direction before you start writing.

Determine and Analyze Your Audience

To whom will the letter, report, or memorandum be sent? Will it be sent to a group? Will it be shared with others? What is your relationship to your audience? The answers to these and other questions may determine the response you receive to what you send.

As you identify your audience, here are some factors to consider:

- What is their position in the hierarchy and how does it relate to you? Subordinates write differently to superiors than superiors write to subordinates. Yet another approach is needed when writing to peers. Messages downward are often authoritative or motivational in tone, while those going upward may have a softer tone. When you share information with peers, you often do so (1) cautiously if you are protecting yourself or (2) quite openly if you anticipate an enthusiastic response. Also, be aware of whether the audience is inside or outside the organization. Messages

going outside the organization differ from internal messages by being more formal.

- What medium is best for your audience? Skilled communicators are able to match the message to the medium from the audience's viewpoint. Some media are perceived as formal (scholarly thesis) or informal (comic book); others are quick (spontaneous meeting in the hall) or slow (printed annual report); personal (face-to-face discussion) or impersonal ("to whom it may concern" letter); friendly (Christmas party) or stern (disciplinary review). Many other characteristics apply. Should the message be written or spoken? If it is to be written, for example, would a facsimile, e-mail, memo, letter, report, or printed document be best? See if you can match each message to its medium in Table 4.1. Make the best pairing you can. The suggested correct answers are open to interpretation, of course.
- How much does the audience know about the subject? Ideally, your message will be appropriate to their level of understanding. They will not be confused when you use relevant jargon or be offended when you define unfamiliar concepts or words. You do not want to waste their time sharing information they already know.
- What is the educational level of the audience? Often writing somewhat below the education level of your readers is desirable (as we will discuss a little further on in this chapter). However, you should not write much above their level. Target your audience level—substantial damage to accurate reception of the message may occur by writing above the audience's level.

Table 4.1 Match the Message to the Medium

Message	Medium
1. Your voice mail has a message from a colleague suggesting a lunch meeting tomorrow.	a. e-mail
2. Company president delivers appreciation to an employee for 25 years of service.	b. facsimile
3. You have been told that one of your direct report subordinates is stealing company supplies.	c. collaborative writing software
4. Six company peers need to plan the organization's strategy for the next five years.	d. on a computer network
5. A supplier in another state has misplaced your order form. He needs it now and must verify your signature.	e. business letter
6. College professor invites a businessperson to speak to her class in six weeks; this is the first contact and details are included.	f. videotape
7. Four managers must co-write a report for the board of directors.	g. face-to-face
8. A student seeks feedback on her business presentation skills.	h. group function
9. You must set forth the steps involved in submitting a request for business travel.	i. telephone
	j. 1-on-1 interview
	k. policy and procedure statement

Answers: 1=a, 2=f, 3=h, 4=g, 5=b, 6=i, 7=c, 8=e, 9=i

- What is likely to be their reaction? If the content is heavy with negative information, think out the best organization for the message. Consider the indirect approach described in Chapter 6. Lay out a different plan if you anticipate acceptance of what you propose from a plan you would use if you expect resistance. Will the current economic environment affect their reaction? Are funds scarce or is the economy in decline, and might these conditions determine acceptance of your proposal?
- How will your message affect or be affected by organization politics? Are favors owed among the readership? Is there animosity among readers? Are you challenging anyone's sacred cow or pet project? Are you sure which members of the audience are nominal leaders and which are true leaders? What does the grapevine say about what you are proposing or sharing? Sometimes trying out your message on politically savvy colleagues can save embarrassment. Do not underestimate the strength of corporate power, political cliques, or old-boy networks.
- Are there major differences in demographics you should take into consideration? If there are dramatic distinctions in religion, age, upbringing, values, income, or other background characteristics that will affect interpretation or acceptance of what you transmit, consider tailoring your message to those characteristics.
- Is this cross-cultural communication in which your message will be translated into another language, or where any reader is using English as a second language? Keeping the message simple and avoiding slang, idioms, and euphemisms will help the reader.

In our example of the unanticipated assignment to write a proposal, to identify your audience you would want to know such things as:

1. What is the size of the bank in numbers of employees, customers, profit, and assets? Are these characteristics improving or declining?
2. Who are the principal players for the bank? Who has the formal and the informal power? What do you know about them in terms of age, experience, education, and so on?
3. How do the bank representatives feel about what you are proposing? Is there a need for what you are proposing? How do they perceive your competition?
4. Who authorized the report? What were the directions regarding the contract? What do they expect?

Answers to these questions will have great impact on what you say and the tone you use to say it. You may need to review the corporate organization chart, make some phone calls to colleagues or secretaries, talk with others in your department, use the company library, or consult peers in other organizations to answer some of these questions.

Do Your Research

As an advanced student, you have learned efficient and effective research techniques. Some of those techniques will benefit you in the corporate world. Well-written reports and proposals are based on data from research, not opinion alone.

If necessary, refresh your memory of such research techniques as library usage; computer, Internet, and electronic database searches; unobtrusive observation; sampling techniques; experimentation; and interviewing. Do not neglect key corporate contacts who may be experts on the subject. Pay attention to company files and records for historical perspectives, guidelines, past mistakes, and suggestions made earlier by others.

Imagine the assignment of working on a feasibility study for a new shopping mall on the outskirts of a major metropolitan area. Research results, more than intuition, will support your conclusions. Topics for research will include

- Competition
- Traffic patterns of potential customers
- Tax rates
- Potential customers
- Government influences
- Building costs
- Perception of your firm by others
- Labor force
- Financial considerations
- Anticipated profit

Think of generating information on these ten topics as doing your job. It is also important research. Inaccurate, biased, or incomplete data will contaminate the quality of your study. The two main characteristics of solid research are reliability and validity. Reliability means that others researching the same topic in the same way would draw the same conclusions. Validity means that the research measures or reports what it is supposed to measure. Thorough research should lead logically to a proposed solution to a problem. The defense of your solution lies in the depth and quality of your research, as well as skills in argumentation.

The discussion that follows guides you in how to conduct electronic research.

Electronic Research

Computers and new technology have redefined the way we do research. Much of your research can be done from a computer that is connected to the Internet, which has enabled access to an increasing amount of information. From that computer you can connect to a library's online catalog, review electronic databases, or search the World Wide Web for information on companies, products, statistics, pictures, or publications. Below is a discussion of some useful research tools.

Step 1—Using the Library's Electronic Resources

Online Catalog. The first place to start when researching a topic should be the library's online catalog. Most research can be completed using this resource alone. Typically, libraries have electronic card catalogs, which include automated systems that check availability, computerized searches of databases for author's names or key words, and regular reviews of periodicals.

Electronic Databases. Many large libraries subscribe to electronic databases that contain full journal articles along with bibliographical information and/or abstracts of articles. The fact that entire articles can be downloaded or printed from the

computer decreases the amount of time spent retrieving information. Thus, to save time, many researchers will begin their search within electronic journal databases rather than look up articles via the library's catalog. These databases can be especially helpful if the library has a limited number of journal titles. There are a myriad of specialized databases, but their availability depends on the home institution's needs and resources. Here is a partial list of some of the more popular databases.

- ABI/Inform: Contains articles in business research journals and important industry trade publications. Many of the articles are full text, while lengthy summaries exist for the rest.
- EBSCOhost Academic Search Elite: Contains many full-text journal articles.

All of these databases provide keyword search utilities that can greatly speed up data gathering.

- ERIC (Educational Research Information Center): Is a federally funded database of research-oriented documents intended for the educational practitioner and researcher.
- InfoTrac: Has over 11 million articles from periodicals and journals dating back to 1980. Includes both subject and key word searches.
- LEXIS/NEXIS: Provides access to the complete text of national and international news articles, and to business, legal, and reference information.
- ProQuest Research Library: Provides access to articles across a wide range of academic disciplines. The database features the full text of articles from over 1,400 periodicals.

Step 2—Employing Internet Resources

Access to the Internet provides the researcher with invaluable research tools that can locate information on practically all topics. At one time, researchers put great effort into finding the desired information. Today, huge amounts of information can be acquired in just a few seconds. We now have to put our effort into filtering the information. The problem with Internet research is that many times the researcher must sort through extensive irrelevant information in order to extract the desired materials.¹ Moreover, the Internet is not as well organized as the library. While many Web directories attempt to catalog each Web site, a single Web directory will never completely represent the entire Web. Thus, it is important to know which Internet tools to employ when trying to locate research materials on the Net.

Library Home Page. Often the best place to start is the home institution's library Web page. Every college/university library has at least one informative Web site that often provides access to electronic journal databases as well as the school's online catalog. Most library Web sites will also include several links to Internet information resources and research tips and techniques.

Web Directories and Search Engines. It would be difficult to research and organize information on the Net without the help of some sort of Web directory or search engine. One popular place to start on the Web is Yahoo! Yahoo! is a useful search tool when looking for specific information such as company news or general reference.

Yahoo! is more of a subject-oriented search engine in that all Web matches are placed into categories. Lycos is another such Web directory.

Search engines offer highly accurate findings, since keyword searches are applied to the full text of the Web site rather than just the title and/or description of the site. To gather information on more general or arcane subjects, such as how to buy a car, the following search engines offer better results:

- AltaVista (<http://www.altavista.com>)
- Excite (<http://www.excite.com>)
- HotBot (<http://www.hotbot.com>)
- Infoseek (<http://www.infoseek.com>)
- Google (<http://www.google.com>)
- Northern Light (<http://www.northernlight.com>)

All of these search engines operate in a similar fashion, although search options and syntax differ. It is best not to rely on just one search site, since all engines extract Web information differently: A search on one site may produce results different from another.

Using all search engines in combination is probably the best research strategy. To save the researcher time and effort, a couple of search sites offer the ability to search several different search engines simultaneously. MetaCrawler (<http://www.metacrawler.com>) is the most popular meta-search engine. A simple search from MetaCrawler's interface will generate results from almost a dozen different search engines. While technically not a meta-search engine, Ask Jeeves (<http://www.ask.com>) is a convenient starting point when the researcher has no idea where to start looking for information because it offers plain-English searches. Thus, typing "where do I find a listing of jobs in Los Angeles" will yield useful results from many of the big search engines.

Search Techniques and Strategies. When using search engines to do research on the Web, practice a few effective strategies. Since Internet search engines cover literally millions of Web pages, the researcher must exert extra effort to narrow the search to relevant Web pages.

The first step of any Web-based search is the identification of appropriate keywords. If your topic is already distinctive, such as the Battle of Antietam, then typing the word *Antietam* or even *Battle of Antietam* will generate useful results from all search engines. However, many times your topic will not contain specific keywords. In this case, Web directories can be particularly useful in generating a list of related keywords. For example, if your topic is "travel trends in America," you can start with Yahoo! subject directories to take advantage of human indexing. Searching just within the travel directory will already eliminate millions of Web sites that contain the words *travel*, *trends*, and *America*. If the Web directory doesn't help, Ask Jeeves is also a good place to generate a list of keywords related to a certain research topic. Typing in plain-English searches such as "where can I find information on current travel trends in America" will yield helpful results while leading the researcher to more useful keywords.

The researcher can narrow down a search even further with the use of Boolean logic. Boolean logic simply allows the user to add search criteria to the array of