

Chapter 3

Defining Your Vision and Mission

OVERVIEW

The vision statement captures the destination of your technology planning and implementation process. The mission statement describes your plans for *fulfilling* that vision. This chapter explores the importance of the vision and mission statements, provides strategies for their development, and presents tips for communicating those statements to your key constituencies.

The Technology Plan

Just as you would not begin any long-distance trip without the help of a good roadmap and an informative guidebook, you should not undertake the journey of implementing a technology initiative in your school or district without the assistance of similar tools. Your first—and best—guide is a technology plan written by your school or district's technology committee. This document will serve as both a compass to point you in the right direction and a roadmap to show you how to get there.

Plan Components

To serve as an accurate roadmap for realizing your school or district's technology vision, the technology plan must address the issues specific to your school or district; articulate goals and objectives; and define a course of action. While every technology plan is unique, a comprehensive plan should include the following:

- Vision and mission statements
- Standards of excellence and/or performance requirements set by state and local departments of education, school boards, and other relevant governing agencies
- Objectives, educational (learning) goals, and strategies
- Networking needs—functional requirements, required resources, inventory of current/legacy networking systems, assessment of infrastructure, network topologies, and standards
- Hardware needs—functional requirements, required resources, inventory of current/legacy hardware that will need to be integrated into the plan, and required servers and workstations
- Software needs—functional requirements, required resources, current software standards, operating systems, network applications, and selection policies
- Implementation plans
- Budget/funding plans
- Timelines
- Policies
- Professional development
- Use and maintenance
- Support
- Equity and access
- Monitoring and evaluation
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Avoiding "Reinventing the Wheel"

First, research other schools or districts that have successfully implemented a technology plan. Obtain copies of their plans if possible, or consult with members of their technology teams. By looking at what others have done, your technology committee can learn from their experiences and might find a good organizational model to use in drafting its own plan. Contact superintendents and technology specialists at districts of similar size and circumstance to yours. They may be willing to share their plans and insights. Other resources include:

- *Your state department of education*, which may have an established technology plan or technology implementation goals, SCANS skills, curriculum frameworks, assessment standards, and other guidelines.

- *The U.S. Department of Education's Secretary's Commission on Achieving Necessary Skills (SCANS)* at <http://www.tier.net/tcenters/scans.htm>.
- *Your own school or district.* Leverage the mission statement and long-term plan (if any) of your own school or district. Ultimately, a good technology plan must support the broadest *non-technology* plans, goals, and visions already in place for your school or district.

For sample technology plans, visit <http://www.nctp.com>, the Web site of Mississippi State University's National Center for Technology Planning, a clearinghouse for technology planning information, including state, district, and school technology plans.

- *The Internet.* Model technology plans from schools across the nation are available on the Internet.
- *Professional technology and education organizations*, such as the International Society for Technology in Education (<http://www.iste.org>).

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The Vision Statement

A vision...articulates a view of a realistic, credible, attractive future for an organization, a condition that is better in some important ways than what now exists. A vision is a target that beckons.

Warren Bennis and Burt Nanus, *Leaders: The Strategies for Taking Charge*

Every journey has a destination. The vision statement captures the destination of your planning and implementation process, providing your constituencies with an inspiring glimpse of where you are trying to lead them. To motivate others to follow you on this journey, the vision statement must be clear and compelling, creative yet realistic, and, most important, connected to improved learning outcomes.

The vision statement:

- Clarifies the technology committee's mission and provides a sound basis for short-term decisions to meet the committee's goals.
- Establishes shared values, which serve as the foundation for consensus building throughout implementation of the technology program.
- Establishes an agenda for action.
- Serves as the primary document shared with funding sources to solicit their support.
- Serves as the standard to which the technology committee continually returns over the course of planning and implementation, a yardstick against which the committee can measure new ideas and proposals.

Creating the technology vision statement is not an esoteric exercise. The statement is the basis for the entire technology plan and should be thought out very carefully. It should be a concise, yet comprehensive picture of the desired destination of your technology plan. It does *not* contain details such as how many computers of what type will be connected to what networks, but instead stresses the benefits and results of technology. Finally, it must be accessible and understandable to all your constituents, even those without technological knowledge.

Getting Started: Drafting Your Vision Statement

The vision statement for your school or district's technology plan should contain the following three elements:

- 1 A concise, clear statement of the overall vision for using technology
- 2 An indication of who will use the technology, as well as where and how it will be used
- 3 A statement related to the benefits, direct and indirect, that will accrue to students, teachers, administrators, and support staff from the use of technology

For more information on the Spring Branch Independent School District technology plan, see <http://www.nctp.com/#building>.

For the purpose of illustration, take a look at the following technology vision statement developed by the Spring Branch Independent School District (SBISD), in Texas, a school system with over 29,000 students in 36 schools.

Vision

The Spring Branch Independent School District (SBISD) recognizes the increasing need to know more, to know how to access information, to understand, and communicate. By including technology as a component of a well-balanced K–12 program, SBISD will provide students with the opportunity to develop lifelong learning skills through the use of technology. By using technology as a tool, teachers, administrators, and support staff will become more efficient and effective in facilitating and managing the learning environment.

Here's how the SBISD statement addresses the components of an effective vision statement:

- 1 *A concise, clear statement of the overall vision.* The SBISD vision statement is straightforward, succinctly stating the two core elements of the vision: 1) providing "students with the opportunity to develop lifelong learning skills through the use of technology," and 2) providing teachers, administrators, and support staff with technology to become "more efficient and effective in facilitating and managing the learning environment."
- 2 *An indication of who will use the technology, as well as where and how it will be used.* The vision statement specifically mentions students, teachers, administrators, and support staff.
- 3 *A statement related to the benefits, direct and indirect, that will accrue from the use of technology.* The vision suggests that technology will provide lifelong learning skills for the students and more efficient and effective facilitation and management of the learning environment for teachers, administrators, and support staff.

The Mission Statement

While the vision statement expresses what a school or district can and should *become*, the mission statement describes the plan for *fulfilling* that vision for technology in education. It is not as broad as the vision statement and is more measurable in many respects.

The mission statement:

- Outlines what must happen to realize the vision.
- Coordinates the stakeholders' actions and efforts by establishing clearly articulated common goals.

Getting Started: Drafting Your Mission Statement

Since the mission statement is more specific than the vision statement, it should describe what your school or district is trying to accomplish through technology and for whom. The mission statement should flow directly from the vision statement and include the following three components:

- 1 What the school or district will do to make its technology vision a reality
- 2 Why the school or district wishes to do this
- 3 For whom the school or district is doing this

Take a look at the following mission statement from the Spring Branch Independent School District. The statement is deconstructed afterwards to show how it fulfills the requirements of an effective mission statement. This example can help you evaluate your school or district's technology mission statement and refine it for completeness, clarity, and consistency with the vision statement.

Mission

The Spring Branch Independent School District will incorporate technology as a natural part of education through an integrated, comprehensive framework to govern acquisition, application, and evaluation of technological resources to ensure that all students will have the opportunity to develop lifelong learning skills necessary to be productive citizens in an information-driven, global society.

By using technology as a tool, the students can:

- *Expand their knowledge base.*
- *Improve their critical-thinking, problem-solving, and decision-making skills.*
- *Access, analyze, evaluate, and communicate information in expedient and efficient formats.*
- *Work ethically, independently, and collaboratively with a diverse and changing population.*

By using and facilitating the student use of technology as a tool, teachers can:

- *Improve instructional strategies to increase student achievement and narrow the gap between high and low achievers.*
- *Accurately and efficiently assess, monitor, and communicate student progress to parents.*
- *Continuously improve professional skills through staff development in technology and the sharing of skills and resources with colleagues.*

By using and facilitating the use of technology as a tool, administrators can:

- *Provide, solicit, and seek adequate funding, maintenance, support, training, and equipment.*
- *Demonstrate leadership and a vision for the use of the technology to increase student achievement and staff productivity.*
- *Provide immediate and easy access to, and manipulation of equipment and data sources for instructional and administrative decision making.*
- *Integrate technology into procedures and guides.*

Tip

The word *vision* means the conception of an image. The word *mission* refers to a commitment to action. Although the correct choice of words is important, so is a carefully chosen image.

It may be best to draw a simple diagram that shows your vision and mission graphically. Don't worry about communications bandwidths, gigabytes of memory, or processor speeds. Just show how you expect technology to flow from the classroom through the school, the school district, and, ultimately, out into the community. Also, include the major steps in the process required to get there.

This diagram does more than summarize your vision and mission—it helps communicate them to the various constituencies with whom you'll interact.

Here's how the SBISD mission statement addresses the components of an effective mission statement:

- 1 *What the district will do to make its technology vision a reality.* The first part of the mission statement says that SBISD will "incorporate technology as a natural part of education through an integrated, comprehensive framework..."
- 2 *Why the district wishes to do this.* The mission statement provides an extensive list of the educational goals technology will be used to support.
- 3 *For whom the district is doing this.* The mission statement clearly says that technology will be integrated throughout the education program to serve all students.

The mission statement provides an outline of the process required to attain your vision for technology in education. Together, the vision and mission statements serve to point toward the intended destination while lighting the way.

Achieving Buy-in for Your Vision and Mission

The technology planning committee not only creates the vision and mission statements, but should also help achieve buy-in for the key stakeholders. Develop enthusiasm and support for your vision and mission by using the following strategies:

- Share the vision and mission with the stakeholders, using any and all means of internal and external communications to get the word out.
- Make the communications process interactive: Listen to responses, and be prepared to modify the vision and mission statements as appropriate.
- Get the endorsement of key people who have influence among your key constituencies.
- Bring the vision and mission to life for outside constituencies with scenarios and examples that show technology in action and what it takes to get there.
- Keep the vision and mission statements in mind as the technology planning journey continues.

Don't wait for a finished technology plan to approach your school board for formal approval. Try to win the board's approval for your plan from the start by bringing them your vision and mission statements before the rest of the plan is written. When there are no purse strings attached, it's easier to get an endorsement from the board. Sharing your ideas early also provides an opportunity for the board to give input as to the direction the plan should take. When you approach the board again to approve the budget, they will be on record as supporting the ultimate goals of the project, which may make it easier to obtain funding approval.

Looking Forward: Getting on the Road

The "big picture" is now finished. Or is it? As your constituents see the vision and mission begin to take form, questions will naturally follow. What kind of technology tools will we use? How much assistance do we need, or should we expect, from outside the school or district? What is our current technology status? What are our resources? What will our hardware, software, and infrastructure needs be? What kind of staff development programs will we implement? Those and other critical questions will need to be addressed as you build and strengthen consensus on the technology plan.

By starting with an assessment of your current situation and comparing it to your vision, you will begin the process of translating that vision into technology terms. However, before diving into the intricacies of technology system requirements, make sure everyone involved feels they have ownership of the vision and mission. Public recognition of and familiarity with the proposed technology program will help reinforce its importance to the community, gain access to those you want to reach, and solidify your mission. So, take the time now to make sure the vision and mission statements are well publicized.

Communicating Your Vision and Mission

The power of marketing and public relations can be experienced along the roadside of any journey: Billboards pitch everything from a \$1.99 "Best in the West" breakfast to the "last chance" to fill our stomachs and gas tanks for the next 200 miles. Marketing draws ambivalent people to commitment. On the road, it compels us to stop and experience a product or attraction, or to keep on going. Similarly, if you want people to partake in your technology vision, you must communicate that vision early and often to boost the chances for its success. Your technology committee can implement and refine the communications effort, but it's useful to outline that effort from the start.

Remember that communicating your technology vision:

- Gathers public recognition and appreciation for that vision.
- Enhances your consensus-building efforts by getting the word out.
- Encourages support for the vision.
- Attracts potential business and community partners to your school or district.
- Encourages cash or in-kind contributions.
- Serves as a vehicle for celebrating your success.

Targeting the Message to Your Constituents

How you deliver the message behind your technology vision and mission statements depends on where the constituents reside. *Internally*, address those aspects that support the district's vision and mission; *externally*, emphasize the aspects that are particularly beneficial and relevant to parents, businesses, and community groups.

Your technology program has goals that your constituents can agree are important and critical to their future, whether they are familiar with the application of technology or are new to computing. By pointing out the relationship between your technology efforts and those key concerns, you increase the impact of your message and a sense of its relevance to your constituencies. Key messages you can convey to emphasize your plan's relevance include:

- Both regular and special needs students in technology-rich environments experience positive effects on achievement in all major subject areas, preschool through higher education.
- In the absence of improved learning, students will lack the skills and knowledge necessary for jobs in the coming years.
- Increased technology use has been correlated with decreased dropout rates and decreased attendance and discipline problems.
- Providing students with access to modern technology requires partnerships between business, education, and the community.

Developing a Communications Strategy

A successful communications program requires the full involvement of your technology committee, key staff, and other interested parties. Meet with those groups, and determine your strengths, weaknesses, opportunities, and the potential obstacles to implementing your vision. Then, prepare a communications plan and train the people carrying out that plan on the importance of being knowledgeable, courteous, and responsive to questions from the public.

Effective, economical ways of reaching out to your constituencies are available in every community. Try as many of the following as are practical given your time and resources:

- Speak to parent groups.
- Speak at PTSA, club, business, and community meetings.
- Produce a newsletter that touts your vision for technology in education.
- Write articles for the district newsletter.
- Develop a school or district brochure that explains your technology vision.
- Advertise your technology vision on school or district Web sites.

Tips for publicizing AN existing technology program

If you already have a technology program, the following strategies will help gain recognition and support for the program and for new technology initiatives. When properly implemented, these strategies create a sense of pride among staff, students, administrators, and community members.

- Produce a regular newsletter to update locally influential people on the technology program's latest

work. Be sure to highlight student contributions and achievements wherever possible.

- Encourage students to publish a newsletter of their own about technology accomplishments.
- Enter technology awards contests offered by school boards, associations, state legislatures, the governor's office, student organizations, community groups, or the media.
- Speak before local community groups about the technology program; arrange for students to make presentations of their work.
- Provide opportunities for people to have hands-on experiences with the technologies and activities that are part of your educational program.
- Devote a special section of the school yearbook to the technology program.

Generating Publicity

Include in your communications plan some of the following strategies for promoting—internally and externally—your school's technology implementation efforts.

School publicity. The strategies listed below are particularly useful for informing your audience of your school's technology vision and mission:

- Place a technology committee spokesperson on local radio and television interview programs. Most local-access cable stations give free airtime to schools and other nonprofit organizations.
- Produce a regular newsletter to update locally influential people on the technology committee's latest initiatives.
- Print regular articles about your technology vision and mission in district or school newsletters.
- Forward news clips on your technology initiative to locally influential people, including school board members, business executives, and college leaders.
- Speak before local community groups about the progress of the technology initiative; arrange for committee members to make brief presentations on their work.
- Participate in or organize a communitywide "career fair" or "career day" designed to interest students in technology jobs. Include representatives of different businesses/industries discussing how technology relates to their work.
- Arrange to have local elected officials declare a "Technology in Education" week or month to publicize the importance of technology in education.
- Arrange for a special section of school media centers to be devoted to technology-related materials.

Publicity for small business and community partners. Although many businesses support education efforts out of their commitment to improving the quality of life in the communities in which they do business, they also appreciate positive press regarding their support of schools. The following suggestions provide cooperative marketing opportunities—ways your business partners can promote their community involvement and your program to their customers (your constituents) at the same time. Each of these strategies supports the dual purposes of publicizing your technology vision while publicizing your supporters' good deeds. They create win-win outcomes.

- Encourage technology committee members to write brief articles about their experiences for corporate in-house newsletters.
- Ask utility companies, banks, credit card companies, and other organizations to include a note or an article about your school or district's technology vision in their monthly direct-mail flyers, statements, and bills. This is a great way to reach a lot of people, and some companies will do it as a public service.
- Recognize businesses and business employees who are supportive of the technology initiative in school or district newsletters or by school "volunteer appreciation" activities.
- Ask the president of a sponsoring company or organization to write an editorial about the technology initiative for the local newspaper.

The Road Ahead

Congratulations! You have developed vision and mission statements that will serve as a *guide for action* for your education stakeholders. Sharing and communicating your vision and mission among your constituents helps them to become *keepers of the vision*. More important, your vision and mission

statements serve as a framework for your technology goals and, as such, will motivate, coordinate, energize, and guide your education stakeholders in achieving the vision.

Where do you go from here? Your next challenge is to translate that vision into specific technology requirements and actions that will mark your progress along the road to realizing your school or district's vision of a Connected Learning Community.

Chapter 4

Planning the Technology Program

OVERVIEW

This chapter describes the process of planning your overall technology program. Included is a series of guiding questions and strategies to assist you in 1) translating your educational goals into technology requirements, 2) assessing resources, and 3) establishing timelines.

With your school or district's technology vision statement drafted, the technology team and your education stakeholders have a picture of broad technology goals as they relate to the needs of your students and staff. Those goals (which align with district, state, and federal educational goals) establish the general direction for planning your technology program.

The next technology planning activity is to define the technology systems that will help achieve your goals. That process involves:

- Translating the school or district's technology goals into technology requirements.
- Assessing your school or district's present resources.
- Setting guidelines and establishing timelines for achieving the technology goals.
- Planning (including budgeting) for ongoing maintenance, support, and future expansion.

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Determining How Technology Will Support Your Educational Vision

Your vision statement provides a broad, comprehensive description of your school or district's overall educational goals and expectations from technology. The next challenge is to translate those goals into definitions of the specific kinds of technology needed to support that vision.

To begin this process, consider how technology will be used to accomplish the following goals:

- Provide and support a challenging curriculum.
- Support learning programs for all students.
- Support the changes in the roles of students, teachers, administrators, parents, community members, and others necessary to achieve the technology vision.
- Support an organizational structure that is consistent with the vision of learning.
- Support and provide meaningful professional development experiences for staff.
- Support your school or district's accountability and assessment system.
- Enhance home-school-community collaboration and communication.

Translating Technology Goals into Technology Requirements

When you have determined how technology will support your school or district's educational vision, it's time to begin defining the requirements of the technology system. It is important to document those requirements to achieve widespread agreement and acceptance among your constituents. Documented technology requirements will also be important to everyone who implements and works with your network, as certain requirements will affect the network design. A successful requirements list represents the needs, expectations, and goals of all the users of the system. By creating the list, you will be able to give your network designer a more complete picture of your system requirements and, ultimately, determine the physical design of your school or district's technology system. Keep in mind that the requirements list should be flexible enough to allow for emerging technologies and technologies that are not yet affordable but will be in the future.

To develop the requirements list, ask yourself how you expect students, teachers, administrators, and community members to use technology to make your school or district's technology vision a reality. Begin by considering the following questions as they relate to instructional, administrative, and community technology use:

Instructional use

- Will computers be in every classroom? In specified places only? Will this change over time?
- Will your system provide access to a broad range of information (such as information stored at the school library and/or public library and on the Internet) from every computer, or only from selected locations?
- Which programs and information will students and teachers have access to?
- Will students, teachers, and parents have access to the system from home?
- Will there be access to the school library or other network resources from home as well as from the classroom?
- Will your system provide distance learning capabilities?
- Will students have the ability to submit homework electronically?

Administrative use

- Who will use electronic mail—students, teachers, parents, administrators, the community?
- What data should teachers and staff have access to?
- How will technology automate administrative tasks to increase productivity and decrease use of paper for progress reports, attendance forms, and memoranda?
- What information (for example, files, databases, and applications) should be shared within the school or district?
- Will the system provide online professional development programs, available anytime and anywhere?
- Will everyone be required to use the same basic software tools, regardless of whether the individual uses an Apple Macintosh computer or a computer running a Microsoft Windows® operating system?

Community use

- Will classes, the school, and/or the district use online newsletters to communicate with the community?
- What types of information does the school or district want to share with the community?
- What aspects of the system will community members be able to use?
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Assessing Your Resources

Tip

Assessing your school or district's resources and inventory can save you real money—and it can make the total costs of your technology plan more palatable to key constituencies and funding sources, thus increasing the plan's chance of success. Why? Because it's likely you won't raise all your capital equipment costs from outside sources, like bond issues. But with careful assessment of your resources, you may be able to redirect some of your current expenditures to support the technology plan.

The extent to which you will be able to meet all your technology system requirements depends in part on the resources at your disposal—that is, time, funding, personnel, district/state support, special skills, and so on. To assess your current resources, examine the following areas of your school or district: 1) technology, 2) personnel, and 3) facilities.

The questions that follow will give you an understanding of what is already available and what is still needed in each area to implement your technology program. Remember, the greatest hidden cost of technology systems is the human cost—the personnel needed for network design, installation, training, support, and maintenance.

Technology inventory

- What technology is being used now, and how much of that technology can be redirected to support the technology plan?
- What personal computers are in place now? If they match your planning criteria, can these machines be incorporated into the plan?
- What is the current data processing capability, and can it be used to support the proposed server-based activities?

Tip

One benefit of implementing a network running the Microsoft Windows 2000 operating system is the availability of remote asset-management tools — [Microsoft Active Directory](#) will make it easy to catalog,

maintain and update your network assets.

- What is the current communications system, and how much does it cost? You may be able to fund your computer network infrastructure without any new spending by replacing the current analog phone system with a digital system that handles the same voice traffic plus the new data needs.

Personnel inventory

- Does the school or district currently have computer-literate staff who can help design the network, or will outside help be required?
- Can parents or other community resources contribute expertise, or can volunteers assist with the installation under the guidance of network experts?
- After the network is installed, who will handle troubleshooting problems, repairing broken hardware, reconfiguring software, backing up important data, upgrading software, and planning upgrades to equipment as technology improves?
- What is the current skill level of the staff? What are their desired skill levels? Who will train staff on how to use the equipment? Will outside trainers be required?

Facilities inventory

- Does the school or district have the electrical wiring and infrastructure necessary to support a significant increase in personal computers and servers? Will this become your first capital expense?
- What is the state of the school buildings, and how easily can the wiring required for networks be installed?
- Do the buildings have the necessary air conditioning and room security systems?
- Which buildings and which rooms will be connected?
- Is there the physical space for routers, hubs, servers, CD towers, and other key network equipment?
- Is the district planning to construct new schools? New facilities can be built in ways that reduce the cost of technology adoption later on; for example, incorporating appropriate wiring or at least wiring ducts in new schools greatly reduces the cost of adding technology later.

Other resource-related questions

- Is school enrollment increasing or decreasing rapidly?
- Does the school or district have a significant English-as-a-second-language (ESL) population?
- Does your school and/or district enjoy strong community support? What is its track record with funding bond issues?
- Is your school board likely to increase millage to support technology initiatives?
- What is the morale of teachers and administrators and their likely acceptance of technology changes?

Establishing a Timeline

Now that you have translated your school or district's educational goals into technology requirements and assessed the available resources, you are ready to set a timeline for implementing the technology plan. A timeline is an important part of the plan because it helps the technology committee stay on track and easily assess its progress toward any goal. Additionally, a timeline allows a school or district to mark accomplishment milestones that can be communicated to constituents, and to update the technology plan to reflect technology advancements.

There are two approaches to setting timelines: 1) by priority, that is, deciding which goals and needs demand immediate attention and which can be put on hold, and 2) by logical order, that is, a step-by-step implementation. You will likely work on numerous goals simultaneously and use both approaches.

For more information on Issaquah School District, see

To learn more about Tuscon Unified School District,

How long will it take to implement the technology plan? Of course, it depends on many variables. If your school or district has money, personnel, and modern facilities, implementation may proceed quickly. A smaller district may proceed quickly as well, making up for a lack of resources with a leaner, more dynamic administration. The relatively small school district of Port Townsend, Washington, with 2,000 students and 200 computers, implemented its system in six months, while the school district of Issaquah, Washington, took four years and the human resources of its students to build a district-wide information

infrastructure. Tuscon Unified School District established a plan that covered seven years of implementation activity for 63,000 students in more than 100 schools, with 7,200 full-time employees and 1,900 part-time employees.

Consider spending your resources—money and energy—in a bell-curve pattern: During the first year, operate slowly on a small scale to gain experience, and then "scale up," implementing technology more quickly, as you gain more knowledge. After the bulk of your school or district is on the system, you can take your time to connect less crucial sites that don't directly reflect the goals of your vision statement.

Identifying Milestones

When you know where you're going (technology goals and requirements) and where you are now (assessment of resources), the final step in planning a technology initiative is to identify key milestones, the "landmarks" by which you'll judge progress toward your destination. In visual terms, key milestones are a series of "snapshots" that chart the journey between your school or district's current status and the vision diagrams suggested in Chapter 3.

Pilot or demonstration project. Whether you are starting with no technology experience or a strong technology base, a good first step is a pilot or demonstration project. A pilot project involves much of the hardware, software, and infrastructure elements of the full technology plan but on a smaller scale. Think of it as a 16-year-old's test drive around the parking lot before attempting the city streets. Through a pilot project, the technology committee will do more than learn about the technologies it plans to implement. It will be able to work out the "bugs" before full implementation, gain the confidence to move ahead to the next implementation phase, and have the experience to adjust the technology plan appropriately. Completing the project successfully will also boost the technology team's credibility with both internal and external constituencies.

Tip

For a catalog of exemplary state, district, and building level technology plans, visit the National Center for Technology Planning at <http://www.nctp.com/>.

School or district implementation. After gaining experience with a pilot project, the next milestone may be implementing the technology plan for a school or administrative building. The system complexity is an order of magnitude above that of the small trial, but still far simpler than the final structure of your full technology system. The length of time required to wire a particular school varies considerably depending on the physical condition of the buildings.

Success Stories

With the enthusiastic support of New Haven mayor John DeStefano, Jr., and superintendent of schools Dr. Reginald Mayo, the New Haven, Connecticut, board of education adopted a long-range technology plan, incorporating a vision of using new technologies to improve school district as well as city services and communication. As part of the plan, New Haven joined with 13 neighboring school districts in the development of a regional network, managed by two Microsoft Windows NT Server sites, for which New Haven is the central city.

Community implementation. Your school or district's vision statement may draw the borders of its technology community well beyond the physical borders of the school or district. Milestones might include expanding the system to the local community (parents communicating with teachers by e-mail), the state (joint teaching and staff development activities with other districts), and the world (student access to the Internet, electronic mail correspondence with international students, and research via international databases).

Keeping Everyone Happy

You can't implement network technology everywhere at once, so how do you keep everyone happy over the course of a long implementation period? The timeline and milestones previously described may look great to the teachers and students in the classrooms or schools scheduled to get the new technology first, but not so great to those who have to wait for several years.

One solution is to distribute stand-alone computers evenly throughout the school or district. That way, everyone has some technology to work with while waiting for a connection to the network. In a district-

wide system, you'll be implementing personal computers and networks in elementary schools, middle schools, and high schools. Does it matter where to start? If you're planning on using students to help you manage your networks, yes! Start with the upper-level students; they can then help you introduce technology to the lower levels.

For information on how Microsoft can assist your school or district with the planning and implementation of a technology

Putting It All Together

Congratulations! You have completed the process of planning your school or district's technology program. This plan maps the design and implementation of the overall program. It's a dynamic, living, working document, and as such, it may be changed as adjustments are needed. Like any good map, it shows a variety of possible routes for arriving at your destination, serves as the boundaries of your creative thinking, and ensures that all your stakeholders will be (literally) on the same page in the planning and implementation process.