II
Critical Management Issues

"No more good must be attempted than the people can bear." **Thomas Jefferson.**

Let's assume that the needs assessment has been completed, and it is determined that it is appropriate for the library to acquire a CD-ROM product. As pointed out in the previous chapter, there is an interrelated set of management issues that need to be addressed in order to engineer successful management of CD-ROMS. They include:

- Identification of key user groups.

- Assessment of their information needs and research habits.

- Selection of a **CD-ROM** product that will meet these needs.

- A plan which justifies the acquisition and funding of CD-ROM products, spells out how the informa-

tion will be delivered throughout the organization, system administration, and the impact on existing resources and services.

The failure to manage effectively any *one* of these situations will seriously undermine the success of adopting a new technology like **CD-ROM.** The thought process required to address each of these management issues is applicable to other information technology questions that will come up in the future.

Two Cases

What is the difference between good management and bad management? We believe that it is planning and attention to the right details. To give substance to our discussion, consider these two libraries. One is a public library with an acquisitions budget of $200,000 per year. The other is a corporate special library with an acquisitions budget of $75,000 per year. Both library directors have an opportunity to acquire a **CD-ROM** product. On the surface, both approach the technology with enthusiasm, but each library director takes a different approach.

Case 1: A Public Library

Let's consider a public library in a middle-sized midwestern city that acquired a popular, inexpensive version of **ERIC** on **CD-ROM..**

A personal computer **(PC)** already in the library was designated as the workstation. The library director bought an optical drive from a third-party vendor specializing in library hardware. The decision was to use different vendors for each piece in order to keep the price down

because the director was not sure that CD-ROM technology was appropriate for the reference room. A business reference librarian who expressed an interest in computers asked for responsibility for the product. The library director assigned the librarian the task of assembling, loading, and maintaining the system.

The librarian assembled the pieces and was unable to make the system work. The disc vendor provided technical support, but that company's support staff was unfamiliar with the optical drive the library had. A local computer consultant was retained, and he was able to make the system work. This was an unbudgeted expense, but the cost was reasonable. The system was made publicly available about 16 weeks after the library director ordered the components.

The system had a tendency to crash which made the workstation non-functional for extended periods of time. When the system did work, the librarian reported that patrons wanted a printer. The library director began the process of ordering a printer.

Five months into the project, usage of the ERIC CD-ROM stabilized and patrons were asking for additional computer-based research services. The library director did not have budget flexibility to install additional workstations or acquire additional discs. The librarian given responsibility for the CD-ROM requested that someone else be given the job of managing the machine.

Today, the library has one CD-ROM. The library director is not certain that additional CD-ROM products would be appropriate for the library. The total cost for one year's experimentation, including hardware and consultant sup-

port, was $17,000. Neither the staff nor the patrons are fully aware of the CD-ROM's relevance to their information needs. The bold experiment answered few questions and did little to integrate CD-ROMS leaving key participants in this project with a sense of frustration and inadequacy in managing the technology.

Case 2: A Special Library

In a routine customer service survey, a corporate library learned that the planning department wanted information about the Disclosure database of corporate financial data.

The information center manager visited with the head of the planning department and the individual requesting information on the CD-ROM. To that meeting the information center (IC) manager took a copy of the library's CD-ROM plan.

In reviewing the plan, the planning manager learned that CD-ROM technology was an important part of the IC's services, that equipment was specified, maintenance provided by the PC support group, and training offered by the IC staff.

The planning manager requested a presentation by the IC staff about the Disclosure CD-ROM and similar products. The report was scheduled and prepared by the IC staff. Shortly after receiving the report, the planning department manager initiated a purchase order for the hardware, software, and CD-ROM. The IC manager ordered the complete product from Disclosure in Bethesda, Maryland.

The **IC** manager coordinated the installation and testing of the product in the IC for one week prior to the transfer of the **CD-ROM** to the planning department. The decision was made to have training provided by **IC** staff with Disclosure personnel available for telephone consultation.

At the appointed time, the workstation was moved to the planning department, training provided, and the CD-ROM was placed in service. Taped to the system were the phone numbers of IC staff and Disclosure's **PC** support group.

Two months after the purchase of the Disclosure **CD-ROM,** the planning department and the finance department co-funded the Standard & **Poor's@ CD-ROM** product. The job of coordinating the purchase fell to the **IC.** This is a good example of how the library can function as an information consultant.

A Two-Minute Case Analysis

In Case 1, the library director tried to develop a **CD-ROM** management plan on the fly. It led to frustration, cost overruns, and an unfair test of the value of the CD-ROM to patrons. It's a textbook case of managing by making decisions one-at-a-time and not within the context of an overall objective. The library didn't get where it wanted to go because it didn't know where it wanted to go in the first place. It did not have a plan.

In Case 2, the IC manager had developed a **CD-ROM** strategy without buying a **CD-ROM.** When the opportunity to support a client came, the **IC** manager used the plan to make the client feel comfortable about the options and the

approach. By taking responsibility for the purchase, testing, and training directly, the **IC** manager earned the respect of the client. The result was a seamless and smooth response to a need. The technology was secondary to managing the details of solving the client's problem.

Where do you want to be? In the Case 1 or the Case 2 library? Only you can decide your fate. You should have a plan and an outline of your objectives.

A Fundamental Truth

Most management failures in technology-based applications are a result of the manager's fear and inability to make the technology an active part of the manager's arsenal of tools.

If you are afraid of computers and don't feel comfortable with laser technology, take steps to become acquainted with them. The plain fact is that you will have to confront a wide range of issues for the life of the product. If you are now using online databases, you are closer to understanding the basic concepts of **CD-ROM** than you think.

Nothing makes technology-based information products succeed more than a manager who demonstrates technological leadership. This means understanding, using, and managing--yourself--all aspects of the technology product--yourself. You do not have to become a computer programmer or an optical engineer, but you must have the knowledge or have the desire to obtain a working knowledge of the system and the ability to lead others through your familiarity with CD-ROMs.

Six CD-ROM Technology Management Tips

1. Make a list.

Make a list of the things that you know about computers and online databases. You'll be pleasantly surprised.

2. Seek SIGS.

Join special interest groups (SIGs) of computer or library societies or associations. SIGs exist for most hardware, software, and information products.

3. Get informed.

Get informed by independent and objective sources. Go to seminars, read journals and books, talk to those who have **CD-ROMs,** and take advantage of trial or demonstration opportunities, seminars, or installations.

4. Make a strategic commitment.

Focus on strategic, significant uses of the **CD-ROM** information product. Even if your motive is to develop your own knowledge of **CD-ROM** technology, translate that into a strategic commitment.

5. Know your competitive position.

Assess the relative position of the library to other information providers in your organization. Can you introduce the **CD-ROM** information product and make it an essential part of your services and product line, thereby increasing the influence of the library?

6. Adapt with flexibility.

Revise the plan which you have built on the needs assessment discussed in Chapter 1 while you gather the information required to weigh each of the management issues mapped below. Recognize that you will have to revise the plan to factor in the impact of user feedback, new products, and technology change.

Managing Change

The introduction of an advanced technology like CD-ROM will be greeted in different ways by different people. Keep in mind that each of these people will respond to the CD-ROM in individualized ways. The three types of change that the **CD-ROM** brings to the information process are:

1. Quality of life

How will the **CD-ROM** impact the work that I do? Will it be easier or harder because of the new technology? Managers need to recognize that the **CD-ROM** will bring with it emotional responses quite separate from the physical discs and black boxes that make the system function. People don't like interruptions in their life.

2. Productivity

How will the CD-ROM affect the amount and type of work that each employee does? What will be the nature and form of these changes? Employees must be integrated into the new information process that **CD-ROM** brings to the library.

3. Management style

What does **CD-ROM** communicate about the way the library will do its business? Will **CD-ROM** give the patron more access to information, thereby altering the role of the traditional reference librarian? Will those affected by **CD-ROM** respond in the way managers want? How will the library's manager react to change? Can the manager take action which encourages positive acceptance of **CD-ROM?** Can the manager change procedures which are not working effectively?

Will **CD-ROM** affect the work patterns of the library staff? The important point is to keep staff and their relationship to the **CD-ROM** uppermost in importance. If co-workers are not fully supportive of the changes that the acquisition of **CD-ROM** may bring, address that issue before the equipment is installed and make **CD-ROM** become part of their work lives.

The Four P's

Once staff issues have been addressed, you need to think about the management issues. These issues can be conveniently grouped as the four P's. The four P's are, as you may know, are marketing-speak for Product, Price, Placement, and Promotion.

Let's look at the management issues associated with each P for a **CD-ROM** product. Keep in mind that what's important to management and the **CD-ROM** user will shift as sophistication evolves and experience with **CD-ROMs** mounts. The library will be faced with a moving target, which means that ongoing feedback will be required about the **CD-ROM** from staff, suppliers, and customers. This

feedback must be fully understood and applied to the `CD-ROM` plan.

1. Product Issues: Licensing or Ownership

One of the principal product issues is whether the library owns the data and the disc or has a license for its use.

Ownership

Without getting into legal technicalities, if you own the disc and the data, you have a fair amount of freedom in the use of the product. There are discs--for example, the software collections from `PC-SIG` and other companies--which allow you to own the disc. The software on the disc is *shareware.* You may test the software, but if you want to continue to use it, a fee must be paid directly to the software developer. Therefore, you own the disc and are not required to return it to the vendor, but you don't own the information on it.

Licensing

An alternative situation occurs when you license the `CD-ROM` product from a vendor. The license, which is a detailed contract, gives certain rights to the library. These may range from few if any restrictions to many restrictions. A number of vendors write their license agreements so that the library must return the `CD-ROM` disc itself when the agreement expires or when the updated `CD-ROM` arrives. The ownership of the data and the concept of *fair* use are murky issues, and to our knowledge, no one--neither vendor nor library--has tested the legality of these in court.

For a working distinction, the *licensed* product is similar to renting an apartment. **You** have certain rights and obligations which are defined in the contract, but you don't own the property. Think *of* the *purchase* of a CD-ROM disc as having some of the constraints imposed on a homeowner who buys a condominium in a subdivision with strict covenants that restrict the colors which may be used to decorate the house, what vehicles may be parked in the street, and prohibitions **against** operating a business from the house.

Read the purchase or license agreement carefully, and if there are clauses which are not clear to you, seek legal counsel. Once the CD-ROM agreement is signed, the clauses are binding, in most cases, for the term of the contract. Make certain **you** know what you are buying, the rights you enjoy, and what activities are prohibited. Each vendor takes a unique position on these issues. What one vendor permits, another will restrict.

Disc returns

In our experience, libraries have been surprised when asked to return **CD-ROM** discs when updates arrive or when an agreement is terminated. Other libraries have found that network distribution of the data on the discs requires additional license fees **or** that such distribution is forbidden.

Develop your product concept within the boundaries of the agreement. The time to read the agreement is before signing. Do not wait until after you expand the CD-ROM operation. You could receive additional bills from the vendor or could be told that your increased use of the CD-ROM is not permitted.

Address these following questions while you evaluate **CD-ROM** license agreements:

- What product did you select? Why did you select that product?

- How will you train people to use the retrieval software for the **CD-ROM** product?

- What will you say when you are asked about the number of information sources provided on the CD-ROM you select?

- What will you do if the **CD-ROM** technology you select changes significantly in six to nine months?

- How will you track usage?

- What will you do to increase or manage usage demand?

- What will you do if online usage expenditures increase? Decline? Remain the same?

- What **CD-ROM** products will you acquire next? What's the timetable?

- What is your flexibility in upgrading equipment? Buying equipment? Leasing equipment?

2. Pricing Issues

Pricing relates to the ability to negotiate with the vendor, strategies to obtain funds to pay for the product and its support, and, if appropriate, charging for use of the product or for the information products which are created using the **CD-ROM** product.

The library wields more influence in product pricing when it has several sources for the same information. If you want to acquire ERIC, Medline, or a general periodical reference on CD-ROM, you will be able to seek the least cost supplier. If, on the other hand, you need an information product which is available from only one source, you will have considerably less leverage in the price negotiation.

Pricing issues include:

- What is the price of the product? What will it cost you to support the product?

- How will you pay for the product? Where does it fit into your department's budget?

- Will you have to recover the cost of the product? If so, what are your pricing objectives? (Cost recovery only? Profit?) What pricing tactics will you employ? (Demand-oriented? Competitive pricing? Cost plus time?)

- What is the cost impact of the CD-ROM on other information products--online, print subscriptions, microforms?

- What is the demand for the information versus the cost of the CD-ROM product? What is its perceived value? Is the CD-ROM product cost effective?

3. Placement Issues

The physical location of the CD-ROM is a more complex issue than it may seem at first glance. Public and academic libraries must balance security with access. If the

CD-ROM attracts heavy use, lines may form. The **presence** of a queue may create a disturbance.

In a corporate setting, the CD-ROM can be placed in a specific department, a general access area, or in a library. The specific factors influencing the location of the CD-ROM vary from organization to organization. Putting a **cd-rom** in the marketing department can constitute a significant change in the way in which information is used in the organization. Consider these issues:

- Where will the **cd-rom** be located?

- How will multi-user access be addressed?

- How will requests for photocopies be handled?

- Will the computer driving the CD-ROM be available for non-CD-ROM applications?

- How will hours of use and availability be decided, communicated, and implemented? Who makes these decisions?

- Who administers the CD-ROM system? (Important if the information is available in a network environment.)

- How will needs, problems, and changes be communicated among this diverse group of users?

- How will problems related to the placement of the **CD-ROM** be resolved?

- What is the process for communicating and resolving placement issues?

4. Promotional Issues

A complete discussion of the strategy and tactics for promoting a CD-ROM library service appears in *Marketing Library Services: A Nuts-and-Bolts Approach* cited in *IX For Further Reading.*

- Who is the customer?

- What are their needs?

- Why are you promoting the CD-ROM? (Increase awareness, build usage, educate?)

- What message do **you** want to communicate?

- How do you want to promote the CD-ROM?

- What response do you expect?

- What is your promotion budget and timetable?

Suggestions for Specific Situations

Different libraries have different circumstances. It is, of course, impossible to discuss every eventuality, but let's look at some representative situations.

Academic Libraries:

- Build relationships with the department heads. Although the library **committee can** be instrumental in the CD-ROM acquisition, many librarians have discovered that department heads can be strong allies in the move to CD-ROM information products. When the product is acquired, work to integrate the CD-ROM into the course work of the

department which the **CD-ROM** supports. Seek the support of departments that may benefit from the **CD-ROM.** When additional capacity or new hardware is needed, the department heads can provide strong, immediate, and influential support.

- Evaluate products for content and excellence. Some disc products are not suitable for the demands of certain undergraduate and graduate research projects. Users perceive the information on the **CD-ROM** as the complete universe of data; therefore, what's offered to them must be of the highest available quality.

- Address access issues. In academic settings, research facilities have long hours. Where and when will the system be available? How will the components be secured? What is the disc check-out policy? Pressure to complete projects with a short deadline characterize some academic library patrons. An out-of-service machine causes frustration. How will the workstation be kept alive and well during hours of access?

- Balance security with access. In some academic settings, **CD-ROM** workstations will be viewed as objects to be studied. Some patrons will try to disassemble the system or use the computer for another application. Too much security is as problematic as too Ii tt le security. Determine what's needed for your organization and review the requirements often, making changes as needed.

The optical system is still something of a novelty, and experimentation must be encouraged without compromising security and access.

Public Libraries

- Evaluate vendors and products with care. Select only products and vendors which have a reputation for standing behind their products and for providing superior customer support.

- Deal only with the vendors and suppliers who provide service and enjoy your confidence. Until you determine who the reliable vendors are, exercise judgment in the selection of new or unknown suppliers. Open purchase orders and established relationships can speed the acquisition and the resolution of technical problems.

- Pay close attention to access and security issues. Creating a situation where a single machine causes a long line of frustrated patrons can be a potentially deadly public relations situation. If a demand problem arises, have a contingency plan worked out, so you can respond to patron needs.

- Establish a maintenance program that keeps the machine working. A dead machine is an inconvenience to users and library staff.

- Monitor usage. Set up mechanisms to count how many people use the machine in each time period. Capture usage data for other library resources in the same interval to determine how the cd-rom is affecting library usage. If historical information is

available, it should be used as a benchmark to measure the net change in resource usage.

- Plan to include acquisition dollars for high-use CD-ROMS. Experience suggests that certain CD-ROM products will receive greater usage than others. Have a plan and dollars, if possible, to acquire additional CD-ROMs and equipment to meet unexpected patron demands. Consider networks as a partial solution. If additional acquisitions are not possible, have a workable plan to meter usage of the CD-ROM and have suitable paper, microfilm, or online options available and in proximity to the workstation.

Special Libraries

- Identify the target markets in your organization which the CD-ROM supports directly. Integrate the information and services of the CD-ROM into that group. Use an influence leader, if you can identify and cultivate one. Additional CD-ROM support will require the endorsement of the library as well as a functional unit in the organization.

- Match CD-ROM products to specific needs. Position all CD-ROM acquisitions as relevant to specific functions or projects in the organization. General interest reference CD-ROMs are more difficult to sell in many governmental and commercial enterprises.

- Plan for topic growth. If a CD-ROM in the financial department takes off, be prepared to recommend

and acquire additional CD-ROMS for this unit. Be willing to play the role of CD-ROM manager in order to build client and consultant relationships.

- Conduct customer surveys on a regular basis. You must know what the clients think about the CD-ROM. Tabulate the data and take action based on what the users are saying.

- Plan to remove the CD-ROM if it doesn't meet needs. If you are unsure of the long-term success of the CD-ROM approach to information, develop your vendor relationships and subscription agreements to give you the maximum flexibility. If the technology is rejected, don't fight the customer. Cut your losses and move on.

A Checklist of Things to Do

The management challenges of CD-ROM are unique. Before you acquire a CD-ROM, make sure you:

- Know why you are getting a CD-ROM.

- Have the knowledge to make it work.

- Get your staff to buy into the process.

- Figure out security, access, and maintenance procedures.

- Closely monitor usage of all information services to determine the impact of the CD-ROM.

- Revise your plan as circumstances dictate.

- Market the product and its capabilities.

- Stay informed about the product, the technology, and vendors by attending conferences, reading journals, and through discussions with your peers.