HOW TO EVALUATE AND PURCHASE AN ILS

What is an ILS?

The definition of an ILS and a complete understanding of its uses is the foundation for the selection process. Many definitions exist:

> "An Integrated Library System (ILS) is a complex, multimodule beast, making it exceedingly difficult to distinguish between one ILS and another. From 50,000 feet, they all look alike..."
>
> "An ILS allows data describing library materials to be accessed through many different modules depending on the needs of the user, starting with staff input in acquisitions and cataloging and ending with user access to holdings through the online public catalog and the circulation system."
>
> "A truly integrated online library system is a relational database, containing bibliographic records for each title. All library functions are processed from these records and updates appear in real time."
>
> "An integrated library system is an automated system in which all the functional modules share a common bibliographic database."

Sources for definitions:

"Choosing Your Integrated Library System: An Overview." www.vtls.com/Products/virtua/documents/choosing.pdf.

Michael Sullivan, HSL associate director for technical & administrative services. http://hsc.virginia.edu/hs-library/newsletter/1995/may/ils.html.

"ILSR FYI," by Mary K. Dzurinko, *Integrated Online Library Systems.* www.ilsr.com/iols.htm.

Integrated Library Systems, by Cynthia L. Lopata. ERIC Clearinghouse on Information & Technology. www.ericit.org/digests/EDO-IR.

The definition of an ILS is shifting as the changing face of technology develops the next-generation systems. IOLS and LMS are other terms often used to describe an ILS. "The concentration on digital and electronic resources has changed [the] idea of what an integrated library system should do and the robustness of current systems on the market. Electronic and digital resources present different and special management needs that must be addressed with practical software solutions."

Source: "ILSR FYI," by Mary K. Dzurinko, *Integrated Online Library Systems.* www.ilsr.com/fyi0103.htm.

Regardless of definition, an ILS must be able to handle many formats, accommodate searching on the Internet, provide a variety of functions including manipulating electronic data, working with graphics, and expediting resource sharing. Functionality and flexibility is the key to a successful ILS.

Understanding this functionality and applying it to the needs of the institution is a process. The ability to fully use this process, evaluate it at appropriate intervals, and readjust it accordingly is the means to obtaining the greatest benefit from the investment. Many purchasers fail to see the big picture or the numerous applications that the ILS can be applied to within the institutional structure. Knowing how it will be used is often not enough. Anticipating additional ways it can be used saves purchasers from long-term mistakes and expensive add-ons that could have been part of the initial purchase.

An ILS should do the following:

- Expedite current manual practices by streamlining them into an automated function
- Provide access to a variety of information in a variety of formats
- Provide connectivity to Internet and local data
- Provide quick and powerful search options

- Allow for creation of databases
- Connect users to a variety of shared resources

To be truly integrated, the ILS should radically change the ways in which materials are processed, accessed, and manipulated. Many libraries fail to fully use an ILS. They cling to old systems—manual methods that do not allow access to information until it has reached a certain stage.

Structuring the use of an ILS to streamline information and replace manual systems is one of its many excellent functions. The ability to access information from one record along the procedural stages also can be a savings in time and energy on the part of staff.

Based on the growing capabilities of today's technological advances into the use of the Web, digital components, and electronic resources, the expectations of an ILS have expanded to include a system that offers:

Source: Integrated Library System Migration Study Steering Committee, Report & Recommendations, Dec. 18, 1997, University of Iowa, p. 13.

- Full support for traditional library functions
- Seamless movement between functional modules
- Graphical user interfaces (GUI)
- Ability to acquire, provide access to, manage, and control local, national, and global resources in many formats
- Web servers with seamless connectivity
- Full support for national standards and industry-standard system components
- Powerful and flexible search engines
- Technology that is adaptable to future technological innovation

Once a library has decided to purchase an ILS, the committee must fully research and study the ways in which it will be used, create the architecture for that use, and anticipate how it will be used in the next five years.

How do I find the right system for my small library?

Selecting a system from among the 42-plus vendors participating in the market depends on these factors:

- Type of library
- Size of collections
- Types of collections
- Size of staff
- Volume of work
- Budget

After selecting the type of system best-suited for your library, research the vendors. Determine:

- Vendors who offer the type of system you are interested in purchasing—school, special, and so on

  Narrow your choices by focusing on vendors who are more specialized in the particular type of library you represent.

- Vendors' place in the market

  Find a vendor with a strong reputation in the market and who is outstanding for your type of library. Smaller companies likely will be bought out so try to get onboard with a larger, reputable firm.

- Types of products developed in the last two years

  Examine the types of products the vendors have offered to see how customer oriented and responsive they are. Focus on vendors who are creating new products that are actively supporting their customer's needs.

- Response to customer needs

  The types of products offered provides a hint. Talk to others who are using this vendor to determine what the response time is to customer requests. This response time is a key aspect of a vendor's reputation and greatly affects your operations.

- Amount of staff devoted to product development

  Vendors dedicated to product development are often more customer responsive, which indicates a strong chance of remaining viable.

- Amount of staff devoted to customer support

  Quantity is not often as important as quality. Knowing how many are on staff is good, but having them available when you need them is vital.

- Number of new-names sales in the last two to three years

  This quantity is often a benchmark for success because it indicates stability.

- Profit and gross sales over the last three years

  Try to obtain a picture of the vendor's financial stability through these statistics. You don't want to invest in a company that has lost funds over the years. That company will either be bought out or disappear.

Vendors are usually classified into two categories: those that focus on large libraries and those that focus on small libraries. "The exact boundary between systems for 'larger' and for 'smaller' libraries is fuzzy—and getting fuzzier every year. Vendors in the 'larger' group tend to predominate in installations costing from $50,000 to well into six figures and beyond. Some, however, do have a few installations in smaller sites. Conversely, vendors in the 'smaller' group tend to dominate in sales where software license costs range from $1,000 to $10,000 or $420,000."

Source: *The Maine Guide to Automating Your Library,* p. 2. www.state.me.us/msl/asil.htm.

Additionally, larger library vendors usually cater to integrated, multiuser, multifunction systems running on mainframes, minis, and super micros using a multiuser operating system such as UNIX or NT server. Small library vendors sell to users of PC- and Mac-based systems with limited numbers of modules.

Selecting a vendor that is compatible with the library's collecting program and its relationship to other departments also managing collections is important. Moreover, researching the vendor and determining the viability of the company in today's market also is key.

"In 2001, the library automation market expanded significantly (17%) and the trend continues. A shrinking number of ever-larger companies control the greatest market share. The many smaller companies still participating represent only a modest portion of the library automation economy. The top 10 earners account for 73% of overall industry revenues, while the smallest 20 companies collectively represent only 13%. "New-name sales, however,

Source: "Capturing the Migrating Customer," by Marshall Breeding, *Library Journal,* April 2, 2002, p. 48.

are declining and expansion appears to be more in buyouts than new companies for the year 2002.

Finding the right system for a library must be based on a thoroughly researched profile of that library and its needs. A profile should include:

- Number of staff who will use the system
- Skill level of the staff training needs
- Number of staff not in the department who need access to the system
- Size of the collection
- Types of materials in the collection
- Level of cataloging anticipated—MARC records, and so on
- Need for visual and digital components
- Access and connectivity needs—Internet searching
- System architecture—LAN, consortia
- Resource sharing—available on Internet, local only, and so on

In the Wisconsin report (see sidebar), the following areas are cited as key factors in technology planning:

- Support of library staff, including its management
- Direct involvement by other parties
- Service-based technology goals and initiatives
- Staff development
- Identification of funding and development of a budget

Using the information from the surveys of small libraries in museums, historical societies, and state archives and the Wisconsin model, the following set of factors are presented as a model for technology planning and described in detail:

- Support of staff and appropriate buy-in from key officials
- Well-planned blueprint for the use of the system
- Staff development in the use of the new system
- Identification of appropriate funding for initial purchase and upkeep

Many excellent works provide guides to planning and implementing a library technology plan. One of the most succinct is the *Library Technology Planning: An Outline of the Process* by the Wisconsin Department of Public Instruction, Public Library Development, www.dpi.state.wi.us/dpi/dltcl/pld/planout.html.

Support of staff and appropriate buy-in from key officials

Having a strong core group that has identified the need for an ILS and thoroughly supports its purchase is key to the success of the system. In many of the profiles provided from the survey, this commitment has included staff, board members, and administrators.

For example, the Florida Historical Society's board members played an important role in the selection of its system. The South Carolina State Archives realized the need to make its commitment broader and is in the process of redefining its needs. The New Jersey Historical Society went a step further and formed a consortium to establish a system that provides support to a number of key institutions and resource sharing among these groups.

Well-planned blueprint for the use of the system

This element of the planning process cannot be stressed too much. The process should address:

- How the system is to be used
- Who is going to use it
- The amount of information that will be attached to it
- The searching mechanisms required
- Use or not of the Internet
- Making the information available to the public or keeping it within the institution
- Power—for speed and searching
- Amount of server space needs

Consider all these pieces and thoroughly discuss them. Although modules may be added at a later date, knowing the strength and size of the initial investment is important.

Consider the terms of use now and five years from now:

- Do you want everyone in your institution to be able to access your card catalog?
- Do you want Internet searching capabilities?
- Do you want your card catalog to be public or only available to your institution?

Once you have answered these questions, you can anticipate needs such as creation of databases of shared information, graphic and digital components, indexing, and additional searching features.

Decide how many staff will be involved and how their work flow will change. Create a work flow chart for the present situation. Use that same chart to modify the work flow with the advent of the technology. Create a checklist like the one following this section or use it to begin your planning process.

Staff development in the use of the new system

The new technology means staff must learn new skill sets, so appropriate training is needed. Training is often costly and can require out-of-town trips or hosting on-site trainers.

The ILS should be a source of excitement and the training for staff in its use should be seen as a golden opportunity. Estimate the number of key staff who will be trained initially. Training-the-trainer is another option for institutions with smaller budgets.

Identification of appropriate funding for initial purchase and upkeep

Identifying a funding source for the purchase of the ILS is an important step in the planning process. Eight of the institutions surveyed indicated that the purchase was made with existing funds, and seven used grants. Either way, know upfront the amount available and identify a funding source.

Acquiring additional modules can be expensive. The library survey indicated that few institutions purchased additional modules after their initial purchase. Most startup systems include cataloging, acquisitions, circulation, and indexing—the most basic investment available.

Working from the blueprint plan, determine what the essential modules will be for the initial purchase. If these modules do not allow the institution to operate as anticipated, purchase the modules that make the most successful integration of the system occur.

The amount of time and expense must equal the satisfaction of the final product. Try to anticipate what you will need in five years and buy it now. If plans call for digitizing photographs and cataloging them in the next three years, purchase the modules that make that happen. Funding may not be available later.

Table 1 indicates the number of modules purchased initially by each institution and the source of funding.

Table 1. Funding sources for institutions for ILS purchase and number of initial modules purchased.

Institution name	Funding source	Initial modules
Alabama Department of Archives	Existing	5
William Breman Jewish Heritage Museum	Special	2
California State Archives	Existing	5
Historic Arkansas Museum	Existing	n/a
Atlanta History Center	Existing	4
Colorado Historical Society	Grant	—
Connecticut Historical Society	Grant, private funds	4
Alma Clyde Field Library of the Florida Historical Society	Existing	4
Florida State Archives	Grant	6
Indiana Historical Society	Existing	2
Kentucky Historical Society	Special	6
New Jersey Historical Society	Additional funding	n/a
North Carolina State Archives	Existing, special	1
State Historical Society of North Dakota	Consortia	—
Historical Society of Pennsylvania	Grant	4
South Carolina Department. of Archives	In process—special	In process—5
Tennessee State Library & Archives	Planning	Planning
Vermont Historical Society	Planning	Planning
Washington State Historical Society	Existing	2

Forty-two percent of the institutions surveyed use existing funds to buy their ILS; 22% use grants or special funds for the purchase. Others are either in the planning stage or were integrated into a consortium.

A checklist of questions for product purchase

- **What functions am I planning to automate?** For example, if acquisitions is automated, how will others benefit from knowing what is on order? How will the work flow look if this information can be shared? Which staff members can best use this automation to expedite their work?
- **How will the ILS help to streamline these shared functions?** How can sharing one record that can be manipulated by many alleviate the work load of others?
- **What type of searching do I want to perform?** Will Internet searching be important? Will I want to perform federated searches on a variety of databases? Is the speed at which I search important?
- **Do I want to share the resources in this system?** If so—locally, regionally, Web? Is my system going to be shared with only the institution and its colleagues or will the information be available to the public? If I plan to have it only within the institution, is there a chance this situation may change in up to five years and information will be shared with the public?
- **Do I need MARC records?** Will I import and export these records? Is MARC format necessary? Is MARC a sacred cow for my library? Will I want to be able to import and export records from OCLC to my ILS? Is MARC really necessary for all of my information? How will MARC affect searching by other means?
- **Will I be using bar coding?** Is bar coding something I will be using for circulation? Can I use it as an inventorying tool? How do I need to consider setting it up ahead of time regarding locations of various collections?
- **Will I be digitizing images and creating a database of these images?** This function may be something for the future, but should I acquire the module now and then integrate the work flow when funds are available? How expensive will this feature be to add later? What other pieces of equipment will I need—scanners, and so on? When I create my images, how will I identify them and how will I be able to search that information?
- **Will I want to share these images on the Web?** How vital is outside contact for my information? What about copyright issues with images? Am I set up to allow viewing? If I want to avoid copying, what dpi should I scan the images in and how can I add a watermark to protect them.
- **Will I need access to full-text and multimedia data via the system (seamless interoperability)?** Do I plan to digitize videos? Is that function something for the future? Can I access the type of information I want included in its entirety?
- **Will I want to be able to manage resources?** Can I create Web pages? Will I be able to set up and maintain resources of Web links? What about electronic resources?
- **Will I be able to perform keyword searches?** What type of searching will I want? Do I need to perform keyword searches, basic searches, and advanced searches? How much flexibility can I afford in this area?

dpi: dots per square inch

- **Do I need a powerful search engine?** What are my expectations with regard to speed and power? How many simultaneous users do I expect?
- **Will I be accessing, managing, and controlling data from a variety of resources?** What types of collections am I trying to manage and what are the particular needs of each for searching, indexing, and so on.
- **Will I be accessing, managing, and controlling data in a variety of formats?** Do I need to be able to digitize videos, scan images, and work with electronic formats? Will I be responsible for microforms that could be digitized? Am I interested in maintaining indexes or serials?
- **Will I need to convert any databases for this system?** What resources am I using now that I will want to continue using? How will they be converted? What is the possibility that they will have to be converted again for each upgrade?
- **Will retroconversion of existing library records be necessary?** If this function is necessary, what types of solutions can the vendor offer? What is the time frame for converting? What type of prep time is required? How much staff will be needed?
- **Will a training module be available?** If a training module is available, how many staff can access it at one time? How long will it be available?
- **Who will need to be trained?** What key staff members must be trained? What other staff should be trained? Can a train-the-trainer situation be instituted?
- **How many staff will use this system?** How will simultaneous users affect the cost? How many seats or site licenses will I need?
- **How many workstations will be required?** How many workstations will I need for staff who are performing specific tasks? How many access stations will be available for read-only access?
- **How many concurrent users will be needed?** This number will affect the work flow and should be based on estimates and assumptions that ensure a productive environment.
- **What is the estimated number of simultaneous OPAC users?** How many will need to access the system at one time? How does this number affect research? What about adding on later and the cost?
- **What is the size of the collection?** How much volume do I expect? Can the system handle a high volume?
- **What is the estimated size of my collection in five years?** Will this system be able to handle the amount of information I expect to have in five years? Should I be considering a larger system for my collection or is my collection static and able to be handled by a smaller system?
- **What are the current formats being cataloged?** Are the majority of items book format? Am I creating finding aids in HTML or XML? How will that choice affect my needs?
- **Will these items circulate?** Do I need a circulation module? Should I buy it for internal purposes even if my library is noncirculating? What other benefits would it provide me? (Having a circulation system permits tracking of use, setting up profiles, and creating statistics, which also may be needed if the library later decides to join a consortium.

- **Will a patron profile be necessary?** This profile is often time-consuming, but beneficial. It may include how many types of items are in the collection by format, location, and call number. This profile helps you calculate the volume and assign needed locations for various items.
- **What, if any, is the current circulation rate?** Is it low enough to eliminate the circulation module? Do I expect it to grow?
- **What is the average number of acquisitions per year?** How will this volume affect my ILS and the size of the system I am acquiring? Is my collection static? Am I acquiring enough annually to push my numbers up into the need for a larger ILS?
- **What is the amount being cataloged per year?** How will this amount affect the number of simultaneous licenses I should buy and the number of workstations? Can this figure be expected to grow? Will I be adding more staff in this area?
- **Will I want a Web-based public access catalog?** Do I want the public to have access to this material? Will people be able to use this material in interlibrary loan? Will they be able to access other formats of the collections—as digitized items? Is this access necessary for my institution? What extra equipment and connections will I need for this access to be possible?
- **Will I want to secure this information?** What type of security do I want? Will I want a backup system? Do I want virus protection? Will I need firewalls?

A step-by-step approach

To expedite the planning process, the following steps provide a means of starting and completing your planning process. Use it and elements of others to create a plan unique to the circumstances of your individual institution. All plans will differ, but they should include some basic elements similar to those cited in the Wisconsin plan.

1. Establish an ILS planning committee.

This committee should be composed of the key people—staff, board members, administrators, and any others who support, use, and maintain the ILS. Avoid excluding any groups, especially those representing other collecting areas.

Members of the committee should reflect the areas of the institution most involved with the ILS. For example, technical services and public services will need to be represented in many cases. In the case of smaller, special libraries, similar to those profiled in the survey, members would include the administration, the head of the library, the head of the archives and the head of the museum. Any technical or information technology (IT) staff members also should be involved.

Key board members are often helpful in promoting the system to the funding bodies or assisting in finding funds. Buy-in at many levels of the institution is essential to the success of the ILS purchase.

2. Establish a clear plan for the committee.

The committee should have a clear mission. Answer these key questions to stay focused:

- Is the committee going to be responsible for writing a proposal?
- Will it interview vendors?
- Will the committee form subcommittees to study the needs of the library?
- What is the timetable for completing their tasks?
- Will the committee schedule vendor demonstrations?
- Who will be included at those demos?
- What will be the final mechanism for deciding on the vendor?
- Will there be a list of selection criteria to help decide on the vendor?
- Who will write the final report?
- Who needs to see this report?

The New Jersey Historical Society made especially effective use of its committees. Digest its example (see Chapter 4).

3. Identify any sacred cows.

Working with the committee, identify immediately any sacred cows that cannot be touched. Consider these questions:

- Is MARC format the one and only cataloging standard?
- If the library doesn't circulate, will that remain true?
- Is interlibrary loan allowed or is this area never going to be developed?
- Are you buying a turnkey or software system, meaning are you already set up with hardware and simply need software that can run on your existing platform or will you want a turnkey system that includes the hardware and software?
- Is the museum using an important database that must be maintained?
- Can one system accommodate all the aspects of the cataloging requirements across collecting areas? If not, what must be retained?
- What person or people must sign off on this project?

4. Analyze current work flow and ILS work flow.

This step is essential and helps establish the architecture for the ILS. Appoint a working group to map the work flow as it exists. Analyze the system and then create a new work flow based on the implementation of the ILS.

Make a list of the new services the ILS will provide, the steps in the old work flow that it will eliminate, and the ways in which the ILS can truly be an ILS. Plan to use your ILS to its greatest effectiveness. For example, it can provide

internal access to on-order materials that can be easily checked and viewed by all staff. Once the order is received, the status can be changed to reveal it is now a cataloged item.

5. Determine needs.

Once work flow has been established, determine the needs of the library. A checklist of questions to assist in this process follows:

- Do you want to automate your basic suite of functions—cataloging, acquisitions, circulation, authority control, and serials?
- What information do you want to share internally?
- What information do you want to share externally? On the Internet?
- What special functions will be required? Bar coding, scanning, patron identification?
- What standards are most important? MARC, HTML?
- Will access to Internet resources be important?
- Will searching and indexing be vital?
- Will a database management system be necessary?
- Are visual and digital components necessary?
- Given any budget restraints, what features can be added later?

6. Prepare a cost form and estimate the budget.

The purchase of the system will most likely involve the following:

- Central site hardware
- Operating system
- Database management system
- Library system software
- Special-purpose hardware
- Vendor services including data conversion

7. Evaluate the vendor.

Use the Internet to study the vendor websites. Many of these vendor sites offer online demos of their products. Take advantage of these demos and evaluate the programs. Determine if the system is intuitive, user friendly, easy-to-use, and attractive. Create a list of vendors whose products you wish to assess more closely. Contact them and set up demonstrations at your institution.

Always check references. Call current users and interview them. Ask how they use the system, what they like about it, what they dislike, and what modules they have purchased since they made their initial investment.

Use your contacts and your site visits to make detailed notes about the vendors. Use the following questions to begin, but use others' experience to flesh out these questions:

- What platform does the system run on?
- What modules are available?
- What architecture is used—client-server?
- What is the database?
- Is training provided?
- Is this system a turnkey or software system?
- How many licenses will be needed?
- What is the understanding for upgrades?
- What is the understanding for enhancements?
- What is the cost for additional modules?
- Will the vendor set up the system?
- Will the vendor train staff?
- What is the annual maintenance fee?
- What, if any, is the cost of upgrades?
- What is the policy on retroconversion?
- What is the vendor's commitment to data conversion?
- What is the time element in this process?

8. Make site visits.

Select and visit institutions that have successfully completed an ILS plan. Create a list of questions to ask during your visit. Especially determine their experience with the vendor in installing, creating timetables, meeting deadlines, training, following through, and any related issues that may have developed.

9. Write a final report.

Select a member of the committee to write a final report. The report should outline what the needs are. Use this report to create the final request for proposals (RFP). Many good examples of RFPs are on the Internet (see bibliography for examples). Study these RFPs to understand all the elements required in creating an effective RFP.

If you are uncertain of the technical aspects required for the RFP, hire a consultant for this part of your planning process. If you have an IT person on board, use his or her knowledge to ensure you have enough technical information to present an accurate picture of your needs.

How to Write a Request for Proposal (RFP), www.internetraining.com.

For more information, see "Model RFP for Integrated Library System Products," *Library Technology Reports,* ALA TechSource, July/August 2003 (online and in print), www.techsource.ala.org.

10. Interview vendors.

Schedule and interview at least four vendors who have responded to your RFP. Invite them on-site and ask them to answer a prepared list of questions, provide a demo, and talk to the staff who will be using the product.

Narrow your choices and ask for references. Create a list of selection criteria. Once you have narrowed the field, select the one that most closely matches your criteria. Use the vendor profiles in this survey, the resources cited in the bibliography, and the institutional profiles to establish a picture of what vendors are being used by institutions similar to your own.

Living with my selection

In considering the purchase and use of an ILS, think of the purchase as you would the purchase of a new car. You don't have to be a mechanic to drive a car. You do, however, need to have a basic working knowledge of automobiles to avoid costly maintenance issues. You need to know some basic maintenance areas and housekeeping procedures that will save you time and money.

IT staff

Continuing with the car metaphor, a mechanic is the person you need for serious problems. Similarly you must identify and establish a relationship with your IT person. If you do not have one, either consider hiring someone full- or part-time or put a qualified person on retainer.

You are going to need IT services. Unless you already have qualified person on staff, consider the importance of adding this vital staff member or make it a priority for the immediate future.

Housekeeping procedures

Basic maintenance falls into the area of daily housekeeping issues. These tasks include emptying e-mail trash, wiping Internet searches, and removing files no longer needed from the server. In cooperation with your vendor and IT staff member, create a set of housekeeping guidelines for your staff.

Make sure the staff understands the reasons these tasks are important and encourage the staff to put the practices into use. Check at unscheduled intervals to see how the staff is progressing. You may need to refresh the guidelines or hold an in-house workshop on the importance of ILS housekeeping issues.

Rainy day account

Consider creating a rainy day account. This account is handy for glitches that can occur. Your initial purchase or replacements may include new wiring, a larger server, new server, additional terminals, and new software. You can count

on something going wrong in the first year or basically any time with any one of these products.

As you would with any new products, knowing upfront what some of these related problems may be and having some reserve cash on hand to assist with the repairs is a good plan. Items may be under warranty, but not all problems are covered, as with any new product.

Warranty checklist

Take the time and effort to create a warranty checklist. Perform this task in conjunction with your vendor and your IT consultant or staff member. Carefully check your warranties. For each item on the list, include the expiration date and any related items that are not under warranty.

Use of such a list saves you time and money by preparing you for maintenance or replacements once these warranties expire. The list also shows you what is not under warranty. Try to obtain an idea of the life cycle of the products. They should all have a documented life cycle.

Staggering for economy

Purchasing all your equipment—hardware, software, and related items—at the same time can mean having to replace them all at the same time. Are you in a fiscal position for that expense? Consider staggering your purchases to avoid a large outlay of cash to replace terminals all at the same time.

Quality not quantity

If you do not have the funds to purchase all the terminals you wanted for staff because of cost, weigh the option of buying more, less-expensive terminals against purchasing higher-quality products and adding more later. Purchasing a higher-quality terminal in the beginning can assist in avoiding costly problems later. You will have upgrades, and your terminals' abilities to handle those upgrades will be crucial.

If you spend the time and money initially to obtain servers and terminals that can handle a larger work load than you anticipate, you will, in the long run, be saving money. If you economize too much, you will find that your terminals are too slow or crash constantly if they are not suited to handling additional modules. Your processing will be affected, and so will your patron comfort level in obtaining fast access to information.

Nothing is worse than having to scrap new hardware because it could not handle the work load. Consider adding more terminals later. This forethought also helps you avoid buying too many products at the same time.

Learn to handle minor problems

Servers have a life span and servers crash. You can always count on those facts. Have a troubleshooter on staff if you don't have an IT person. This staff member should be trained with enough knowledge to fix minor glitches and crashes. You would not take your car to the mechanic only to find out you ran out of gas. When minor glitches occur, they can be fixed without calling in the expensive retainer, consultant, or vendor.

Take the time to make a checklist of troubleshooting issues with your vendor and IT person in advance. Know upfront what you can and cannot do to avoid calling in the costly experts.

The hidden cost of an ILS

One area that often causes problems is hidden costs. Glitches with a new car, for example, are not unusual. And some glitches aren't covered under warranty. View your server and other hardware and software the same way. Using your warranty checklist, try to anticipate when you may need to replace hardware. Have your rainy day cash available for unscheduled maintenance problems. Be ready for hidden costs that are often not apparent.

Many hidden costs often appear well into the first year of purchase. These costs can either be associated with money or time expense. Some of these less obvious costs include those associated with data dumping, data conversion, and retroconversion. The cost and the time involved are often more than estimated in the original plan.

If you are facing huge amounts of data conversion, make sure you plan well. Can your budget afford to convert all this data in one year? How many years is a comfortable timetable for your institution and your budget?

Make sure you address data conversion issues with the staff members you interview on your site visits. Learning from others' experience is often the best method. Find out what they faced, how they handled it, and how they paid for it. Make sure you have a clear idea of not only the costs, but also the time involved. Staff time is money. How much staff will you need to work with data conversion? How will this conversion affect your work flow? How will it impact other services? What role can the vendor play in this process?

Staff time is often a hidden cost that goes unchecked or evaluated. Staff training, for example, is needed for the ILS to work. Answer these questions to better address these potential hidden costs:

- While key staff members are away for a two- or three-day training session, who will cover for them?
- For training: Is sending only key staff and having them train others more cost-effective than training all staff upfront?
- Which is more cost-effective—to have the trainer's expenses paid and bring the trainer on-site or pay for staff to travel out of state for the training?
- What is the cost in staff morale for those staff members who are not included in this process and how can they be brought on board?

Another hidden cost that often goes unchecked or noticed is file maintenance. You will need someone on staff to maintain your system including file mainte-

nance. Creating and saving information is easy but what has to be done to those files to make sure they are available? Creating is only half the game. For example, if you are using databases or creating files associated with a digital program, the files must be maintained on a schedule.

In addition, you will need to establish a process for refreshing these files on a regular basis. Assign this role to a staff member who understands the importance of this action. Who on your staff has the expertise to maintain files and databases? Who will need to acquire these skill sets? Will your IT person perform these tasks? When you upgrade your system you will find yourself faced with time-consuming work to upgrade related databases and reload programs. Be prepared and don't allow these hidden duties to eat up your budget or become staff burdens.

To evaluate your ILS economy, consider performing a cost analysis for maintaining files. Many studies have been conducted to establish the cost and time associated with cataloging monographs. Do the same for maintaining computer files. This exercise helps you put into perspective the money and time associated with what appears to be a simple click of a button. Maintaining and refreshing files is an expensive business and can lead to buying a second server. In addition, staff will need to be assigned to the task of refreshing, migrating, or emulating files depending on your program. Files must be preserved, so select a program that is cost-effective for your institution.

Sources of cost and time studies:

www.libraries.psu.edu/iasweb/catsweb/books/standards.htm

www.indiana.edu/~libiocm/core_sample.html

Staffing For Results: A Guide to Working Smarter, by Diane Mayo and Jeanne Goodrich for the Public Library Association (PLA), provides ways to measure performance and output.

Summary

Acquiring an ILS is a major purchase for a small library. Proper planning is the key to success. Forming committees composed of appropriate staff, planning a work flow for the process to be automated, and charting what the system should do is all part of the process.

Because small libraries are often part of an institution including a variety of collections—museum, archives—the challenge is finding an ILS to handle this variety of formats and cataloging requirements.

Site visits, vendor research, and reports should culminate in an appropriate RFP. Once vendors are selected, use a set of predetermined criteria to evaluate them. Select the system that works best for your institution, but learn from the mistakes of others and plan ahead for unseen expenses and the future.