

## How to automate a library one step at a time: planning, selecting, implementing

- First in a series of three articles on library automation

If you are thinking of automating your library for the first time, or migrating from your current automation system to a new one, you will need to take several steps. This article will provide an overview of 10 main steps involved in planning for, selecting and implementing automation systems. Planning steps, steps 1-5, will also be described in detail here. Subsequent articles will deal with selecting steps, steps 6-8 and implementation steps, steps 9-10. Additional resources, including sample checklists, for each step may be found at the end of each article.

### Overview – 10 Main Steps to Automation

The graphic below illustrates 10 main steps to library automation. All libraries will need to complete steps 1-5, the planning steps. Steps 6-8, the selecting steps include Request for Proposals (RFPs). Some libraries may not need to complete this step depending on their size and funding sources. All libraries will need to evaluate systems and contract with a vendor. Steps 9-10, the implementation steps will also be completed by all libraries.

#### Planning Steps

- Step 1 - Requirements gathering, what are the library's needs?
- Step 2 - Research available systems
- Step 3 - Technology / Automation plans
- Step 4 - Cost estimates
- Step 5 - Preparing collections

#### Selecting Steps

- Step 6 - Vendor evaluations, systems overview
- Step 7 - RFPs, refine requirements
- Step 8 - Contract with vendor / Budget

#### Implementation Steps

- Step 9 - Data conversion/migration
- Step 10 - Installation and training

## Planning Steps

### **Step 1** – Requirements gathering, what are the library's needs?

You will need to determine the library's needs by gathering information about the current state of your library. This information should include: the collection size, material formats, number of patrons, annual circulation, services provided, number of staff who will use the system, workflow analysis (steps needed to complete different tasks), number of computers, wiring and internet access.

When looking at your collection, you will want to consider the total number of items, as well as, the number of items in specific collections you may have (fiction, large print, juvenile, YA, reference, etc.) You will also want to determine the number of items in each format (print, DVD, CD, etc.).

You will also need to look at your acquisitions and cataloging practices. How many items do you add to the collection each year? What is your anticipated growth over the next five years? And, what kind of bibliographic records do you have? If you have an automated system, how complete are your electronic records? If you are not automated, are you using a shelf-list? How up to date is it?

When looking at your circulation, you will need to determine the total number of patrons as well as the number of patrons in particular categories (adult, juvenile, homebound, etc.). You will also need to determine the annual circulation of your library.

How many staff does your library have? You will need to review the tasks your staff accomplishes on a daily basis and the steps required to complete each task. Examples include: How does your staff check out materials? How do they find materials on the shelves? How are overdues processed? Once you review your workflows, you will be able to compare them to workflows using an automation system. This will allow you to determine how your staff may function in the future. You may need additional staff or volunteers for the automation process and possibly after automation is in place. Automation should make your staff more efficient, making additional staff unnecessary and allowing you to reallocate existing staff to new tasks and projects.

You will need to review the number of computers in the library for staff and for patrons. Will you need additional computers, or possibly new wiring? Will you need to upgrade internet access? Who provides technology support for your library? When something doesn't work, who do you call?

What services does the library currently provide? In addition to basic circulation and programs, what services might you wish to provide? Will you want patrons to be able to reserve items on their own? Will you want to provide a web-based catalog, a mobile accessible catalog? Will you want to allow patrons to request interlibrary loans?

Once you have gathered as much information as possible about the current state of your library, you will be ready to investigate available automation systems.

## **Step 2 – Research available systems**

To research available automation systems, look to library literature, colleagues and conference sessions. Library literature includes articles written for professional journals such as *Library Journal* and *School Library Journal* and resources available from the American Library Association, state and regional library associations, and your state library. Professional development materials may be found in the collections of the South Dakota State Library, in print and electronic formats. Look at the systems that other libraries near you are using. Ask them questions about what they like or don't like about their system. Attend conference sessions on automation and visit with vendors of automation systems.

Now that you have done some research into available automation systems, you can combine your library data with this research and prepare your technology plan.

## **Step 3 – Technology/Automation Plans**

To help write your technology plan, you will use the data gathered in steps 1 and 2. You will need to consider both functional and technical requirements.

Functional requirements help you decide which modules of an automation system you wish to consider. Most systems include Circulation, OPAC, Cataloging, Serials Management, Acquisitions, Reports and Inventory. Some systems also provide Interlibrary Loan modules. At a minimum you will want Circulation, Cataloging and OPAC.

Technical requirements include: operating system (Mac or PC compatible), traditional client-server architecture (client software to download to a computer in the library with a server in-house or at the vendor's site) or SaaS (Software as a Service, software accessed via the web). How many simultaneous staff users are necessary/allowed? How many workstations are required? How many simultaneous OPAC users are necessary/allowed?

Once your technology plan is written, you will have a good idea of what you are looking for in an automation system and what you will need to accommodate that system. Now you can look at estimating costs for the items in your plan.

## **Step 4 – Cost estimates**

The library's budget is a major consideration when considering automation. Estimating the cost of an automation system includes, but may not be limited to: new hardware and software for the system, new computers for staff and patrons, networking costs (wiring), data conversion costs, barcodes, barcode scanners, library cards, supplies (paper for overdue notices), ongoing costs (annual subscription, utilities, internet access), training.

At this point, you have gathered data about your library, researched available automation systems, drafted a technology plan and estimated costs for a new system. Now you need to begin preparing your collection.

## **Step 5 – Preparing collections**

To prepare your collections for initial automation or migration to a new system inventory and weeding are crucial processes.

Why inventory? To check and verify the library collection on the shelves against the catalog records (or shelflist), to replace or withdraw all missing items, to evaluate the condition of materials on the shelves, to evaluate the quality of the cataloguing records, to analyze a collection's strengths and weaknesses.

Why weed? To remove materials which are out-dated, in poor condition or do not circulate. When preparing for automation or migration, every item added to the new system costs money.

Preparing your collections will continue until you begin the conversion/migration process. Remember that the more you weed and clean-up your cataloging records, the more efficient you will make the automation process as a whole.

### [Resources for Planning Steps 1 -5](#)

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