The role of Systems Librarians in academic libraries

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Although the title of Systems Librarian (or Automation Librarian) has existed in one form or another for many years, at this point in the history of libraries a more definitive description of what a Systems Librarian is and what a Systems Librarian does is needed. Also, depending on the size of the library, an entire department may be needed to perform library systems tasks. For this discussion, the term Systems Librarian is used to describe an individual working in an academic library or to reference the work associated with an academic library's systems department. Technology is redesigning how libraries provide services. We are facing a network information revolution. With revolution comes Chaos, uncertainty about the future, and myriad other problems. As if this were not enough, we are also facing a revolution in technology, a threefold revolution in networking, information, and technology, with each feeding the other. Never in the history of the world have we had so much change so quickly[1].

The Need for a Systems Librarian

Libraries struggling to stay afloat in the sea of technological changes can typically divide their needs into some broad categories:

- Maintenance of the library's integrated online system

- Centralized software maintenance and development

- Current awareness of new and existing technologies for libraries

As library management systems become truly integrated, practically every library unit interfaces to some extent with the system. The primary role for a Systems Librarian has been to assist in the selection of an integrated system, to facilitate the installation of the system, and to maintain the system after installation[2]. With the expansion of library systems, the need to maintain them becomes critical.

In addition to an integrated online system, libraries also make extensive use of standard applications programs (word processor, spreadsheets, etc.). Having policies regarding their use and providing training for their use is be-

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1.   Michael James, "The Network Information Revolution: An Introduction", *From A to Z39.50, a Networking Primer* (Westport, CT: Mecklermedia, 1995): 1

2.   Felix T. Chu, "Evaluating the Skills of the Systems Librarian", *Journal of Library Administration* 12:1 (1990): 92-93.

coming more of an issue as the number and types of software increases. Another aspect of this identifies a need for software development. Libraries are complex organizations. The popular applications programs available do not always fill their software needs. As a result, the best solutions for software needs in a library are often those developed by the librarians with knowledge of the problem and the skills to write programs to solve the problem. "In-house development of PC applications is well within the reach of any motivated librarian who is willing to invest some time in self-instruction"[3].

The last broad category of need for a Systems Librarian involves current awareness of new and existing technologies specifically designed for libraries. Although it can be argued that this knowledge need not be centralized (individual librarians should be aware of new and existing changes relevant to their particular specialty-reference, cataloging, interlibrary loan, etc.), having an individual who can understand these technological developments provides the library with a more appropriate mechanism for integrating these changes into its environment. Having a Systems Librarian who can see the "big picture" can assist in a more smooth migration to new technologies.

It is important for the Systems Librarian to be aware of current developments in both data processing and librarianship. Above all, he or she should understand the changing limitations of new hardware and software in their application of library-specific problems and the cost involved in order to plan for appropriate changes[4].

Skills of the Systems Librarian

Some of the necessary skills required by Systems Librarians can be identified as follows:
•   General knowledge of libraries (MLS)
•   General knowledge of computer technology as well as specific knowledge of technology used by libraries
•   Problem solving abilities
•   Ability to communicate well (oral and written skills)

Fundamentally, the skills required by Systems Librarians are firmly grounded with an understanding of how libraries function. To this end, a basic requirement should be (as with any other professional position in an academic library) an MLS (or equivalent) from an accredited school of Library Science. Systems Librarians must first understand the workflow that make up the day to day library functions before applying technology to improve the

3.   Frank White, "The Role of the Automation Librarian in the Medium-sized Library", *Canadian Library Journal* 47 (August 1990): 257.
4.   4. Chu, 98.

productivity and efficiency of those functions. Non-professionals, particularly those with only a technical background, do not usually have the underpinning theoretical knowledge needed to understand the basic purpose of library activities.

Added to a firm background in librarianship, Systems Librarians need to have a good understanding of computers, networks, and software, although a degree in computer science should not be a realistic requirement. Some of these concepts have particular implications as they relate to libraries. The proper marriage of the knowledge of how the library functions and what solutions technology can offer will result in the most appropriate implementation for improving library workflow.

Often problems are revealed in the library workflow and Systems Librarians are brought in to provide an automated solution. Whether it is a problem with existing technology not functioning as it has in the past or a problem with the implementation of new technology, solving the problem requires not only the skills just discussed, but also the ability to define the problem accurately. Once the problem is defined, it must first be determined whether or not a technological solution is even required. If technology is to be applied to solve the problem, a number of possible solutions should be conceptualized. Along with imagining possible alternative solutions, it is necessary to project the result of implementing each possible alternative to see which most appropriately fits the environment. Issues such as cost, staff resources, complexity of the technology, and on-going support should all be considered.

Finally, the ability to communicate technological changes is important to ensure that all library staff and patrons are able to make full use of library technology. A primary function of the Systems Librarian is training staff in the use of the library's system, as well as any software developed in-house. To accurately reflect the library's use of technology, written reports help place these developments in historical perspective. They also help shape planning initiatives across library units. Having good oral and written skills will help the Systems Librarian not only with implementing and managing library systems, but also with making these systems more productive for its users through training and documentation

Relationships with Others

Systems Librarians have unique relationships with individuals inside and outside the library. Their role is typically as an intermediary (or liaison between various constituencies). The following is a list of relationships established as part of Systems Librarians responsibilities:
• With the library administration
• With the library staff
• With the institution's computing center

- With patrons
- With vendors

The relationship with the library administration and staff have already been addressed; Systems Librarians play a key role in keeping the administration (whether it be internal or external - such as a library director or higher level university administrator or dean) informed on technological developments relevant to the library. They interface with staff by analyzing and implementing technology for various library units, requiring a close working relationship with staff in those units.

Large-scale automation efforts at the college or university level require the Systems Librarian to work with computing center staff. The responsibility here is to have an individual that understands enough about both the computing center (sometimes referred to as data processing) operations and the library to facilitate communication between the two groups. There is a need to have "someone who can communicate well with the various departments of the library and data processing personnel, using their jargon when necessary"[5].

Although Systems Librarians may not deal directly with patrons on a regular basis, they should always keep in mind that the end result of their work is usually focused on improving services for library patrons. For example, Systems Librarians should try to think like a patron when developing or improving an online interface (such as the public catalog). The success of any automated system will be largely attributed to how well patrons adapt to it.

Perhaps the most interesting relationship for a Systems Librarian is with vendors, particularly integrated library systems vendors (since this relationship greatly impacts the activities performed in many, if not all, units of the library). Systems Librarians need to straddle a fine line between being cooperative and being critical. On one hand, they need to work closely and col-laboratively with a systems vendor to develop enhancements. On the other hand, they also need to make sure that the vendor adequately addresses problems with the library's system in a timely manner. One of the causes of friction between the library and vendor is that vendors sometimes display an attitude that they are better informed about how technology should be implemented in libraries. As one vendor put it, if we had waited for librarians to tell us what new information technology to introduce, we would still be doing manual cataloging. Vendors are defining what the marketplace needs, and we'll have to drag the librarians along "kicking and screamming"[6].

5.Chu,99.

6. Charles R. McClure, William E. Moen and Joe Ryan, *Libraries and the Inter-net/NREN, Perspectives, Issues, and Challenges* (Westport, CT: Mecklermedia, 1994): 386.

Needless to say, this attitude does not promote a healthy relationship between library and vendor. The Systems Librarian's role is as a liaison between the two. This role is reminiscent of the last few lines from the Woody Allen movie *Annie Hall:*

I thought of that old joke, you know, this, this this guy goes to a psychiatrist and says, "Doc, uh, my brother's crazy, he thinks he's a chicken" and, uh, the doctor says, "well why don't you turn him in?" And the guy says, "I would but I need the eggs " .

Even though there is often disagreements and feuding between libraries and vendors, Systems Librarians must maintain this relationship because libraries need the eggs (vendor support).

7. Woody Allen (writer and director), Annie Hall [videocassette].
(Available from CBS/FOX Video, Farmington Hills, Michigan, 1985).