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# The Effects of Technology on Midcareer Librarians

MARILYN P. LEWIS

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## ABSTRACT

THIS ARTICLE INVESTIGATES TECHNOLOGY COMPETENCY REQUIREMENTS in the library profession. Using the position advertisements in *American Libraries* in five-year increments over a twenty-year period (1970–1990), the article examines and evaluates the advertised qualifications of positions and attempts to see if midcareer librarians—especially those who have achieved their degree prior to the change in M.L.S. curriculum that currently emphasizes technology—are “effective” librarians in the present and future job market.

## INTRODUCTION

Libraries have seen many changes over the centuries. From the scrolls and clay tablets of Egypt, Greece, Rome, and the Far East, to the early printed volumes and manuscripts of European universities and monasteries, traditional libraries have always been stocked with materials that help to fill a knowledge void. As the libraries grew and changed in size, stature, and mission, the patron base grew and changed as well. The evolving methods of research and information access have reflected those changes.

In today's American libraries, it has become an increasingly rare occurrence to find the traditional card catalog as the sole source of access to the library's collection. The number of electronic databases that either duplicate or enhance information access has grown dramatically. Physical possession of information (in the guise of printed material) remains the backbone of most library collections, but it can no longer be considered the only criterion for determining the quality and size of a library's resources. The lower costs associated with automation, the expanding equipment capabilities, the use of consortia agreements to increase buying and sharing pow-

er, and a patron base that increasingly expects technology to answer its information needs without relying on printed material have contributed to the expansion of technology. What began as a novel "oddity" or "toy" in technical and large academic libraries twenty-five years ago is now found in more and more libraries—regardless of size and location.

Today, new, "freshly-minted" librarians with their M.L.S. in hand appear to have little problem with the present technology and what might be unpacked in the next electronic database release (Buttler, 1996, p. 44). Current M.L.S. curricula provide a cornucopia of technology classes and relegate many of the "traditional" library science classes to either elective classes or workshops (Hildenbrand, 1999, p. 676; Wanden, 1995, p. 30). But can the same be said about the librarian who acquired the M.L.S. degree twenty to thirty years ago? Experience in the workplace, formal classes, workshops, and conference programs continue to be part of the continuing education of the professional librarian. A review of programs scheduled at professional conferences over the years indicates that librarians have historically shown an interest in knowing what happens outside of their own library building/program.

Perceptions without facts to substantiate those perceptions should be considered suspect. Stanley J. Wilder (1999) has published data on the age demographics of academic librarians researching data on Association of Research Libraries (ARL) and he has reported:

Library Manpower established that U.S. librarians were older than their counterparts in most comparable professions in 1970. Populations do not age the same way that individuals do; they may grow younger, remain the same, or age. In fact, the average age of U.S. librarians did not change between 1970 and 1990. But between 1990 and 1994, librarians in the United States aged rapidly. In 1990, 48 percent of librarians were aged 45 and over, compared with 58 percent in 1994. (p. 1)

Wilder also indicated that ARL libraries hired more librarians with less years of professional experience than librarians with greater years of experience. In 1994, 63 percent of the librarians hired in ARL libraries had five or less years of experience. In the same year, 37 percent of the new hires in ARL libraries had six or more years of experience (Wilder, 1999, p. 18). Further comment from Wilder indicated that "many new professionals enter ARL libraries only to leave within a few years" (p. 19).

Many enter into librarianship as a second career, making the age of "newly minted" librarians automatically older when they search for their first or second position (Wilder, 1999, p. 23).

What does this have to say about the midcareer librarian—the librarian who acquired the "terminal degree" more than ten to fifteen years ago? How does that librarian compare technologically with the librarian who might be the same age but just received the M.L.S.? Can the midcareer librarian compare favorably?

## BACKGROUND

Technology has evolved in libraries over the past twenty to thirty years, and librarians have to grow with the technology that libraries presently employ. Unless midcareer librarians were in the position to learn about technology “on the job” in the 1990s, they had either to take formal courses that would help them to acquire the necessary skills and knowledge to become “techno-savvy” or to rely on others in the organization to organize and implement emerging technology. It is the author’s contention that the use of all of these methods has made those librarians who acquired their formal “terminal” M.L.S. degree prior to 1990 capable “technocrats.”

Prior to distance learning and/or the Internet of present-day technology, formal courses in emerging technology were few or nonexistent. Even when they became available, it took a major commitment for both librarian and the library to invest in the course. Formal and informal networking grew out of necessity to cope with a technology that had, as yet, no set rules. But as the technology proved not to be a temporary anomaly, libraries found that positions would have to reflect the growing field.

## SETTING

When a position in a library becomes available, it is customary to advertise the position—very often in publications and sources that would ensure maximum exposure to potential applicants. *American Libraries* is the official journal of the ALA. It has always provided a section where position vacancies are printed for its readership. The wide range of library and position coverage in this publication has made it a natural place for job seekers and job providers to meet in a common arena.

## METHODOLOGY

Using position advertisements from *American Libraries*, this study will categorize the qualifications stated in the advertisements. It is anticipated that the written requirements for “technology” skills might increase over the years. It was determined to not categorize every year, but rather the following sample years as a database: 1970, 1975, 1980, 1985, and 1990. It was felt that these years would adequately cover positions held or sought by librarians either in “midcareer” or in “midlife” from the information taken from Wilder’s ARL sample of academic librarians. If librarians were to seek their initial position after those years, the author assumed that the librarian had acquired the necessary skills in formal coursework in a M.L.S. program. The ads from *American Libraries* were used because the author initially expected the job descriptions to be consistent and to ensure that the study would give a consistent cross-section of available positions during the sample years. It was felt that five-year increments would show the possible measurable change in any of the categories and years. The following categories were noted:

- Type of library: Academic, government, public, special, teaching, or other.
- Qualifications: Technology, administration.

Database total: A total of 5,160 ads were reviewed from the sample years. The following table breaks down the number of ads by years and shows the percentage increase/decrease between years.

*Table 1*

Year	Number of Ads	Percentage Increase/Decrease over Previous Years
1970	646	—
1975	350	-45.83
1980	942	+62.85
1985	1443	+34.72
1990	1779	+18.89

## DEFINITION OF TERMS

### *Library Types*

- Academic: Libraries supporting two-year, four-year, and graduate programs.
- Government: Libraries/programs that support a wider range of formal entities. State and federal libraries are included in this group.
- Public: Libraries supporting a regional, county, or city patron base.
- Special: School libraries, libraries for a specific patron base (i.e., medical, organizational, music libraries).
- Teaching: Library school positions—either instructors or administrative (Deans, Associate Deans) positions.
- Other: Does not fit any other library category. Vendors, networks, and publishers are included in this category.

## PRELIMINARY ASSUMPTIONS

Based on her experience and that of colleagues with whom this was discussed, the author anticipated that while midcareer librarians acquired their initial library education and training prior to the explosion of microcomputers (1980s-1990s), these librarians would be still qualified to contribute technologically in today's libraries.

## FINDINGS

Upon the review of the positions, the greatest numbers were in academic libraries. Of a total 2,480 ads requesting technology skills over all years, 1,639 (66%) of these were for academic library positions.

The growth of technology and the significance this had for libraries filling vacant positions appears to be reflected in the increase in technological qualifications noted in the advertisements.

The number of positions, regardless of library type, grew consistently

*Table 2*

Year	Number of Ads Requesting Technology
1970	42
1975	66
1980	391
1985	828
1990	1153

with one exception—1975. The author does not draw conclusions as to this variance to the otherwise steady growth other than causes implied by previous literature or statistical variance. Table 1 (see above) demonstrates this trend.

This data indicates that libraries have been increasing their recruiting for positions (regardless of type or indicated qualifications) from 1980 through 1990. This correlates with the increased capacity of libraries acquiring automation equipment and systems, as well as systematic retirements and reevaluation of positions to reflect changes in duties and responsibilities of librarian positions (Simmons-Welburn, 2000, p. 11).

### TECHNOFILE OR ADMINISTRATOR?

Many, but not all, librarians move into administrative roles after a period of years in the profession. It was interesting to determine if the qualifications of “administration” and “technology” were considered sufficiently significant so that both qualifications were stated in the position ads; or if one qualification was considered more significant to available positions.

The types of libraries that advertise in *American Libraries* have remained relatively static. Interestingly, there was an increase in published qualifications other than “technology” at the same time “technology” qualifications were published in the ads. “Administration” qualifications were either implied or stated in the traditional administrative roles: director, assistant director, dean, department head. The following data shows that, while at the same time libraries were recruiting for candidates with technological qualifications, they were also increasingly requesting “administration” qualifications in their lower-level positions. By “administration” qualifications, the author includes supervision, evaluation, written and oral reporting to superiors as part of the duties implied in that quality. The breakdown according to years, regardless of library type, is shown in this table:

*Table 3*

Year	Number of Ads Requesting Administration	Number of Ads Requesting Technology and Administration
1970	229	24
1975	197	49
1980	509	233
1985	764	483
1990	969	591

At about the same time that technological qualifications began to be explicitly stated in the ads, there was also an increase in administrative positions, including middle management. Both position types appear in all year spans, although administrative experience was required more than technological expertise in the earlier years (see Tables 2 & 3 above). And while previous studies have shown that many librarians move into administrative positions after serving time at an assistant level, one should not assume that ads for administrative positions do not imply some computer application experience. One cannot imagine an applicant for an administrative position not being conversant with current library technology, at least in a general way. The difference between the two ad types would be one of emphasis, rather than of exclusivity.

### CONCLUSIONS AND IMPLICATIONS

Statistics show that librarians are older, demographically, in comparison to other similar professions (Wilder, 1999, p. 1). The reasons for this variance could be a topic for another study. Whether librarians obtain their terminal degree early in their chronological life or as a second or third career, the current average age of a librarian is greater than what someone would expect in a profession that has been inundated with technology. The advertised qualifications of available positions reflect the requirement of emerging technologies, regardless of the position or the type of library. The increase in the "technology" qualification shows steady growth, beginning primarily in traditional technical services and some administrative positions. Growth in this qualification appears to have crossed into all types of positions by the mid-1980s. As was expected, the qualifications for "technology" only appeared primarily in technical services positions in the 1970s, which correlates with libraries beginning their implementation of automated systems and projects of retrospective conversion of card catalogs. It was not until the completion of the catalog conversion, the subsequent implementation of online catalogs, and the emergence of electronic databases that the "technology" qualification increased in the other positions. The growth of that crossover began in administrative roles in the 1980s and indicated that both "administrative" and "technology" qualifications in-

creased during that time. Many of the people in these positions were not immediately out of their terminal degree program. They were professionals with a number of years of experience. Therefore, one might draw the conclusion that successful automation of libraries transpired due to the large number of people who were well into their career at the time of initial automation activity.

Data also show that there are many librarians who stayed with only one or two libraries throughout their career (Wilder, 1999, p. 19). The range of years of these one-or-two-library librarians grows steadily to include up to thirty years. This suggests that librarians who obtained their initial degree prior to the "Technological Revolution" comprise a large contingency of present library staffs. There is a normal attrition of librarians who leave the profession, retire, or are dissatisfied with their career for a variety of reasons. The adjustment to technology and the change it brings is only one reason for this attrition. But if that were too much of a reason, then there might be more librarians leaving (or being forced to leave) the ranks than the numbers indicate. Either midcareer librarians have adjusted to the changes of technology, or they have found some other source of job satisfaction (Kem, 1996) so that the positions requiring increased number of years of experience seem to be met by most libraries.

Evan St. Lifer (2000) has commented on the number of vacancies anticipated as the current librarians who entered the library field in the 1970s and 1980s begin to retire. The number of people obtaining library training has seen an increase in the 1990s (p. 40). The people hiring these new graduates may have obtained their own degrees in the 1960s, 1970s, or 1980s. As was shown in the position study of qualifications, administrators have had to have "technology" as part of their own resume so that they could make informed decisions—primarily regarding technological plans—about the recruitment of new librarian positions. It appears that technology has had little "bad" effect on the midcareer librarian. Rather, it has made for changes in what is expected of a midcareer librarian.

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**ADDITIONAL READINGS**

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