Re-engineering academic and research libraries

By Jacquelyn McCoy

Technology continues to change the nature of our jobs

Academic libraries are at a crossroads. Technology, finances, and the changing academy are forcing the library profession to reevaluate virtually every feature and function of librarianship. Decisions being made during this turbulent time will produce permanent impacts on the academic library as we know it. There is one certainty in all of this: academic libraries will not remain as they have been. It is not clear at this time whether we as a profession will shape that future or whether we will adopt a reactive stance. I am convinced that we academic librarians must address the issues discussed below if we are to play a role in making the choices that changing technology, reduced financial resources, and new academic priorities will thrust upon us.

In the late 70s, an article in *The Chronicle of Higher Education* caught my eye and fascinated me. The article explained that mathematicians had finally solved the "four-color map problem." This was evidently a "problem" that mathematicians had been trying to solve for over a hundred years. Can one draw a map of any country and use only four colors with out any two borders that touch having the same color? It was thought to be true but could not be "proved." What interested me about the story was that it concluded that the computer had performed calculations that would have taken several generations of mathematicians to accomplish. The editors then went on to ask a bold question . . . Are computers actually changing the way we work?

At the time the four-color math problem was being solved, there were libraries that had automated certain functions and a few even had early forms of online catalogs. However, most of the academic library world was still struggling with how to acquire an OCLC terminal and a printer. In fact, over the next several years as more and more libraries developed access to online databases and staff expertise to use them in searches; the library world had indeed begun a radical shift in the way it functions.

Technology and its ever expanding impacts have been changing the shape and the focus of libraries for many years. The move to typewriters eliminated the need for Dewey to teach "Library Hand." Manual typewriters were replaced over the years by electric machines. However, the use of the computer to set in type the *Index Medicus* manuscripts in the mid-60s can no doubt be considered the beginning of this epoch-making shift in the use of technology in libraries. The realization that the medical information could be packaged informs for specific purposes led to the concept of online searching.

It is interesting to note that the 1976 *Standards for College Libraries* mentioned the need for a photocopy machine in the library. The battle for the photocopy technology is one that many have long since forgotten, yet it was so important that our profession wrote it into the standards. I doubt that fax machines will be written into the next set of standards, but it is likely that online catalogs will be considered a "standard."

Higher education is in the midst of a "re-engineering." As the academy attempts to "reinvent" itself for the 21st century, it will struggle with new teaching methods in an increasingly consumer-oriented marketplace, new curriculums that take into account the changing demographics, and financial realities that

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will prevent serendipitous or uncontrolled growth. For the foreseeable future, the pie cannot grow and thus competition for resources is fierce among various units on campus. A specific example of this struggle which many of us are already facing is the expansion of the library vs. the development of the computer center. An interesting question is whether the academic library will be a partner in the changes that are challenging the academy. Many of our colleagues have taken some bold steps in an attempt to engage the higher education community in meaningful dialogue about the future. In "Preferred Futures" Richard Dougherty and Carol Hughes illustrate how librarians may adopt the pro-active approach. "Preferred Futures" is based upon a meeting that included both library leaders and higher education administrators.

The networked environment raises a number of vexing questions. How will standards be applied to libraries (and eventually accreditation of the academy) with greater access to remote databases and full text information via the network? How will libraries teach patrons to evaluate the usefulness of this larger body of material that for now is unorganized and unevaluated? How will faculty adjust to the infinitely larger array of materials that their students discover on the network and then use in their research papers?

Academic libraries today find themselves dealing with a significantly larger and more diverse group of vendors than was true even two decades ago. The relationship between these vendors and the library profession is much more reciprocal than it ever was before. User groups are polled by the knowledge industry about the future content and development of their products. Librarians are having a say about the product, and in turn, the product is in many cases influencing the services we librarians can provide.

Library administrators are increasingly confronting the rapidly changing patterns of employment which characterize the post-industrial economy. More workers will switch career paths throughout their lives, the work week and the hours of employment will be increasingly varied fostering part-time employees, job sharing, and remote work sites connected by an electronic network. These many changes and variables could result in higher turnover rates, a need for continuous retraining and an invigorated staff development program. Shouldn't we

be spending on training and staff development at least what we spend on hardware and software maintenance?

It is already apparent that there needs to be greater flexibility and sensitivity in accommodating the multiple needs of a diverse workforce. An increasingly diverse workforce—racially, ethnically, and in terms of education and experience—will greatly enhance the workplace and positively influence, as we are already witnessing, the services we provide. The role of the paraprofessional and support staff will continue to evolve and those serving in these capacities will demand a greater say in the work place. Professional associations like ACRL will need to assist in the continuing education of these partners on the information services team.

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The ACRL President's program at the ALA Annual Meeting in New Orleans will explore some of the issues that the academy will be addressing in the immediate future. Titled, "Headed for the Beach?: Redirecting the Academic Whale," the program will explore the challenges and realities that our partners in the academy are addressing. Robert Zempsky is the founding director of the University of Pennsylvania's Institute for Research on Higher Education, one of this country's major public policy centers for post-secondary education. In addition, he serves as senior editor of *Policy Perspectives*, a national quarterly that has come to play a central role in defining the nation's higher education agenda. Dr. Zemsky will examine the major forces that are at work in the higher education community today.

The second speaker will be Dr. Carole Barone, Associate Vice Chancellor for Information Technology at the University of California, Davis. She is the past chair of the Board of Directors of CAUSE and a member of the EDUCOM Board of Trustees. Dr. Barone will be presenting a hightech multimedia session on the changing and challenging role of technology in a higher education environment.

Many voices are calling for change in academe. Others insist that higher education cannot reform itself, that only external pressure will bring about necessary reorientation and restructuring. The ACRL President's Program considers current criticisms of our colleges and universities, exploring possibilities of essential change from within. Both Dr. Zempsky and Dr. Barone are dynamic speakers and will offer a "non-librarian" perspective on "Headed for the Beach? Redirecting the Academic Whale."

The computer has changed and is continuing to change, the way we think and work. The impact on education has been, and will continue to be, profound. Academic libraries are at a fork in the road and it appears that we have the opportunity to choose among the options confronting us on the road still ahead. ■

Letters

More on class gifts

To the editor:

I noticed in the April 93 issue of *C&RL News*, the article by Jinnie Davis on class gifts to libraries. At Whitman College, we have benefited from several classes. The Whitman Class of 1982 raised $20,000 to refurbish and equip properly a computer lab located in the library in memory of their dear, departed classmate Kam Graves Lincoln. This class wanted to donate funds for more and better PCs because when they graduated PCs simply did not exist. Lincoln and her husband, a computer programmer, were killed in an airplane crash in Thailand. The door to the computer lab is marked with a memorial plaque.

The 1993 class at Whitman has identified Penrose Library as their special class project. All funds raised in their fundraising campaign will be donated to Penrose. Seniors are especially encouraged to donate their initial $100 security deposit to the library upon graduation. Books purchased with Class of 1993 funds will be marked with a special bookplate, and all donors of $25 or more may honor an individual who has changed their lives by having the individual listed on the bookplate.—*Henry Yaple, Whitman College Library*