

# The Scholarly Information Center: An Organizational Model

Diane J. Cimbala

*The steady increase in automated functions in libraries and the growing service orientation of computer centers have blurred the distinctions between these two separate academic units. Several authors have suggested that given the similarities between libraries and computing centers, they be combined administratively, though no institution has yet completely merged the two. This article explores the structural and personnel implications of such a union and proposes an organizational model for creating such an information services center.*



In a 1985 article in *Public Administration Review*, Harlan Cleveland outlines his view of the nature of information as a commodity: "The size and scope of 'the information society' are now familiar even in the popular literature. We can take it as read that information is the dominant resource in the United States, and coming to be so in other 'advanced' or 'developed' countries."<sup>1</sup>

Cleveland describes the characteristics that distinguish information from other commodities: it is expandable; it is not "resource-hungry" (that is, its production and distribution use little energy and few other resources); it is substitutable, transportable, diffusive, and shareable.<sup>2</sup> He argues that the effects of information on the global economy will differ drastically from those of traditional manufactured goods or natural resources and that the unique characteristics of information will force the world's business and political leaders to reorganize their patterns of influence and control.<sup>3</sup>

On a level that is closer to home, Patricia Battin, formerly vice-president and director of libraries at Columbia University, has

used Harlan's model to propose a new "scholarly information center" combining the best of the academic library and the university computing center:

According to the traditional cliché, the Library is the heart of the University. I think it is time for a new metaphor—and that metaphor is more appropriately DNA. The new process will be a helix—we provide a basic set of services and technical capacities, users interact and experiment with the new technical dimensions and develop new requirements which then influence the evolution of a new shape for the infrastructure. As the genetic code of the University, the character and quality of the Scholarly Information Center will determine the character and quality of the institution.<sup>4</sup>

Battin's ideas have served her well. Columbia University added to her responsibilities the oversight of academic computing, thus making possible the combination she described.<sup>5</sup>

Librarians and computing directors throughout the country, since the beginning of this decade, have been studying the prospect of building links such as those proposed in Battin's scholarly information center. As Cleveland asserts, even popular journals have recognized that

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computer technology has affected libraries greatly and has expanding potential. An editorial in *The Futurist* notes that "libraries that embrace the newer technologies (without neglecting books, of course) should become increasingly valuable to their patrons."<sup>6</sup>

Libraries are becoming increasingly automated and depend more and more heavily on electronic access to information, more than most patrons realize. Staff in many academic libraries work closely with their counterparts at academic computing facilities as they install telecommunications equipment, microcomputers, and in-house networks. However, such a link may not indicate a natural or easy transition from two organizations to one. This article will examine the potential difficulties that might be encountered by academic libraries and computing centers as they move from a position of mutual respect and frequent interaction, but separate organization, to a true union of interests and functions and will propose a model organization that reflects that combination.

For years, perhaps unbeknownst to most scholars and computing specialists, libraries have relied heavily on computers to provide easy access to information. At the bibliographic level, two national networks, the mammoth OCLC and the Research Libraries Group's RLIN, provide access to nearly twenty-four billion machine-readable records that describe the monographic and selected serial holdings of the nation's libraries.<sup>7</sup> From these tapes card, online, and computer-output microform catalogs are created. Through the OCLC and RLIN networks, scholars may confirm bibliographic data and holdings and borrow books from other libraries. The databases are important as both reference and technical tools, and the organizations that provide these services strive to improve and expand them.

Libraries have also made extensive use of the online databases that provide computerized access to periodical indexes as well as electronically published full-text journals. In addition to the telecommunications-based sources, the advent of compact disc technologies has enabled li-

braries to access, store, preserve, and disseminate enormous quantities of data that would be too costly to purchase and keep in print form. Archival materials, too, can be made available through the new technologies.

Service is a third facet of computing. Librarians speak of bringing their libraries to "full automation," meaning that functions will be electronically integrated from the point that an item is ordered through payment, cataloging, and circulation. Online circulation is already common, and most academic libraries have automated at least portions of their acquisitions and serials functions. OCLC and RLIN are used in-house to catalog materials. Integrated linkages between the two utilities are still being developed but likely to be available within the not-too-distant future.

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A major difference between the library's and the university computing center's use of computing is that, with the exception of functional activities, the library's electronic services largely reflect access to externally generated information, while computing centers are concerned primarily with internally produced data such as student records, intracampus networks, accounting, word processing, and statistical services—all of which comprise the archival records of a university's daily business. In addition, computer centers may provide access to raw data used in research.

Citing *Chemical Abstracts* as a prime example of the complex problems facing librarians and scholars, Battin describes the maze of information that is accessible via computer. *Chemical Abstracts* is available first as a printed index, then as *Chem Abstracts*, an online index searchable via the commercial database services. There are,

according to Battin, three types of index users: those who are satisfied with print access, those who require professional searching assistance from a librarian in order to gain access to the online *Chem Abstracts*, and those specialized scholars who prefer to search *Chem Abstracts* themselves, preferably from a home or office computer terminal.<sup>8</sup> The costs for providing all three levels of access are prohibitive for many institutions, as the cost of paper indexes runs in the thousands of dollars, online access is expensive to subsidize, and providing adequate telecommunications equipment for experienced scholar/searchers can be difficult and costly as well. Similar examples might be chosen from most other disciplines. Battin suggests that the scholarly information center should be able to provide online access to machine-readable indexes such as *Chem Abstracts* in addition to the institution's card catalog, the national bibliographic networks, administrative files such as student records, and other subject-specific databases.<sup>9</sup>

The problem arises when one considers the administrative structure necessary to accomplish such a merger. Setting financial concerns aside, the most logical plan for accommodating such a venture would combine the library and computing center into one unit. Battin asserts that such an organization will have to evolve with technology, that the "Scholarly Information Center does not imply a building and rigid hierarchy of chains of command."<sup>10</sup>

Nevertheless, academic libraries and computing centers are parts of a traditionally hierarchical organization: the university. In addition, the two tend to be similarly structured. While they can and will cooperate to provide information for years to come, it is entirely conceivable that one day they will form one body within the university structure and that no distinction will be made between the librarians and the computer specialists.

Despite the similarities, no institution has yet completely integrated the library with the computing center. Columbia University and California State at Chico have come close, but in both cases these units still maintain separate identities

while reporting to a common vice-president.

The potential for combining the units exists, and the logic of such a move may become more apparent as technology unites their services. Eventually, academic administrators will look at the staffs of the library and computing center and see quite a bit of duplication.

Ideally then, a scholarly information center would consist of two groups: public or user services and technical services. Staff in the former would be responsible for teaching patrons how to gain access to information, whether in printed or machine-readable form. They would need to be well acquainted with automated systems so that they could assist patrons in selecting sources best suited to their needs. Currently, reference librarians serve this purpose by directing patrons to appropriate sources, and academic support staff in computer centers perform the same function when suggesting the software packages best suited to patrons' needs. The expertise of the two could be combined into one staff, responsible for teaching computer as well as bibliographic literacy.

The technical services functions would support the public services staff. These members would prepare data for input, much as the staffs of cataloging departments now do with OCLC and RLIN and as programmers and systems specialists do in computer services. Like acquisitions and collection development librarians, they would make decisions regarding appropriate purchases of systems, documents, hardware, software, and other media. They would be responsible for maintaining access to intra- and intercampus networks via telecommunications systems, and they would address the provision of system access to scholars who work at home.

Several problems are inherent in creating such an organization, and several important issues involve personnel. The staffs of existing libraries and computing centers may well resist such a change. Appraising and translating academic credentials and determining salaries are also considerations. At present, only a handful of

academic libraries will employ anyone less than a librarian holding the M.L.S. degree from an American Library Association-accredited institution for a professional position. Many prefer, even require, additional graduate education, such as a subject master's or Ph.D. degree. Conversely, the market for computing specialists has made it difficult for academic institutions to compete for those holding an M.S. in computer science. Consequently, many computing facilities are staffed by people who hold only a bachelor's degree. To complicate the situation, librarianship, as a traditionally female-dominated profession, is still cursed with absurdly low salaries when compared with other professions requiring a master's degree. Market conditions present the opposite circumstances for computer scientists.

The problem of faculty status must also be addressed. Many institutions view their librarians as instructional personnel in line positions, granting them faculty rank, allowing them voting privileges in the faculty senate, and requiring them to apply for promotion and tenure. Computing center employees, usually considered staff, do not enjoy the rights and responsibilities granted to academic librarians. Last but not least will be the image problem: very few computer scientists will wish to be labeled "librarians."

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Indeed, like the hybrid scholarly information center presented by Patricia Battin, a hybrid librarian-computer scientist may be the solution to the personnel dilemmas created by such an organization. Some library schools are already anticipating that need by offering degrees in information science that have a more technical focus than traditional library education

programs. If they are to educate individuals to work in an integrated information center, library schools must keep abreast of technological trends and still provide their students with a strong service orientation and a bibliographic base.

The goals, focus, and orientation of an information center will also present problems for administrators. Traditionally, libraries have been service-oriented and have focused on the research and curricular needs of the students and faculty. Computing centers have not needed such an altruistic outlook, as their initial purpose was subject-specific: they served computer science majors much as the language lab serves students of foreign languages. As more and more students and faculty become aware of the opportunities computing offers, and as technology leads more scholars into the use of computers, computing centers will find their focus shifting. Raymond K. Neff, assistant vice-chancellor at the University of California-Berkeley, believes that a distinction will have to be made between public and private computing: "public computing [involves] writing programs meant to be used by people other than programmers, and to be maintained over time. . . . Private computing involves writing programs either for oneself or for a limited audience."<sup>12</sup> Ability level will also be a concern of the information center staff as they deal with users who are novice, advanced, or highly sophisticated.

It will be years before an institution as tradition-bound as the university will be willing to address full integration of computing services and libraries/media centers into one body—as Patricia Battin noted, the process may be evolutionary. Still, as technological advances and demands bring the functions and services of the two organizations closer together, and as financial constraints prohibit duplication of effort, the work of academic librarians and computer services specialists will gradually be transformed into one discipline. Librarians who retool to prepare for such change will serve their patrons better now and will find themselves in a more flexible position when integration occurs. Librarians and computer specialists ought



to begin now to recognize their common purpose and to form relationships that are allied, not adversarial. At the current rate of technological change, the day of the scholarly information center is not far off.

Librarians, computer services administrators, and upper-level administrators of colleges and universities must anticipate this change and begin long-range planning to accommodate it.

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