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Marilyn Searson Lary

Issue Editor

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Community/Junior College Libraries: National and International Aspects

MARILYN SEARSON LARY
Issue Editor

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Introduction

MARILYN SEARSON LARY

Within the twenty years since an issue of Library Trends has been devoted to community college librarianship, the responsibilities of two-year college libraries, Learning Resources Centers (LRCs), have continued to increase and expand. From originally providing resources to support college transfer programs and vocational skills programs, the two-year college LRC is now expected to respond to many diverse and disparate needs: to acclimate immigrant students; to provide skill-deficient students with remedial/developmental experiences; to support technical programs offering immediate, skills-oriented training; to serve as an educational support facility of "last resort" for those who might want post-secondary opportunities; to provide resources to the community in education, culture and information needs.

No other type of educational institution in this country is asked, indeed expected, to provide so much diversity in programs and resources for so many different demands. Despite criticism, extremely spare budgets and ever increasing needs, community college resource centers have managed to respond to their constituencies. And this response has been characterized by openness, creativity and optimism embodying the spirit of "doing all that one can."

As in all libraries, this response has been influenced not only by financial and educational considerations but by the changing face of librarianship itself. This issue is offered to library practitioners, stu-
dents and educators as an introduction to community college librarian-ship in the mid-1980s: the challenges of and responses to a changing educational horizon for us all.
The Organization and Administration of Two-Year College Learning Resources

RUTH J. PERSON

The two-year college learning resources center (LRC) represents a relatively recent addition to the academic library population. This type of academic library, as well as the concept it represents, is an important area for study and discussion for several reasons. First, two-year colleges represent a significant percentage of the total number of academic institutions. In addition to this numerical strength, the community college LRC represents to some observers a suggestion of things to come. In Academic Libraries by the Year 2000, Hickey suggests that: "If one would see a possible image of the future academic institution and its library, the community college of today and its ‘learning resources center’ provides such a model." The development of guidelines for learning resources programs in senior institutions indicates that some movement toward the implementation of this model may be taking place.

Many factors have contributed to the unique nature of the LRC. In order to examine the trends and issues that have shaped the LRC and will do so in the future, an understanding of organization and administration is critical. Burack and Negandhi have used a model to examine the design of organizations which includes both environmental, external organizational and internal organizational factors and influences. They indicate that design-related matters which must be considered include "the organization structure, structuring of departmental and task units, and the allocation of responsibility and authority."

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Organization and Administration

Added to all of these influences must be the general trends affecting higher education, current management theories concerning organizational structure and governance, and technological developments and available innovations that are relevant to the two-year college setting. Also important are the trends affecting librarianship and instructional technology, as well as the views of the profession(s) toward organizational arrangements as set forth in the “Guidelines for Two-Year College Learning Resources Programs” and “Standards for College and University Learning Resources Programs.” Internally, the age of the college, pressures from staff concerning structure and governance, the nature of the task environment, the conditions under which staff work best, and the numbers and kinds of subsystems needed for all LRC services to be accommodated need to be considered as potential influences on design.

Organizational structures can be characterized in a number of ways. Two approaches are particularly relevant here—flat v. tall structures, and organic v. mechanistic design. The desire for one or the other of these approaches is also an influence on design. Flat structures have fewer authority levels and often extensive delegation. As Newport points out, potential advantages for such structures include, “improved vertical communication; more rapid decision-making at the point of action; better development of subordinates through their earlier involvement in a broader range of responsibilities; and a greater team feeling through a reduction of the administrative distance between levels of the hierarchy.” Tall structures, on the other hand, feature more authority levels with a generally smaller span of control for each manager.

From another perspective, mechanistic organizational units “are the traditional pyramidal pattern of organizing...roles and procedures are precisely defined...authority, influence, and information are arranged by levels...decision-making is centralized at the top.” This form is “efficient and predictable,” providing a secure setting for individuals with a low tolerance for ambiguity, and is often appropriate when a unit performs essentially stable and well-defined tasks. However, it is decidedly less flexible, often hinders change, and may create low morale among employees in a highly professional setting.

In designing an organic organization, the system is left “maximally open to the environment in order to make the most of new opportunities.” This type of structure is characterized by a somewhat ambiguous task environment, decentralized decision-making, relative heterogeneity, and permeable boundaries. It tends to be more flexible and
learning theory which have incorporated many sources and modes of learning and delivery, and the advent of the so-called “Fourth Revolution.” The nature of the community college itself, with its outreach mandate and its open-door philosophy, also prompted a search for new approaches to learning. Gradually these new approaches to education had an impact on two-year college libraries. While the basic work of the library—the identification, acquisition, organization, storage, retrieval, and delivery of information and learning materials—continues, the formats and delivery systems for that information have changed dramatically in the community college environment and have affected the organization and administration of the LRC itself.

It has already been noted that the learning resources concept presents difficulties in terms of discussion. From the institutional perspective, it is important to consider all learning resources, regardless of their form, location or means of organization and delivery. Attention in this discussion, however, will be devoted primarily to those functions contained within the domain of the learning resources center itself. Furthermore, in reviewing the development of the LRC as an organization, changes in the last decade will receive primary attention, since other authors have thoroughly covered the historical development of community college libraries and learning resources centers.

**Factors Affecting Organization Structure and Design of the LRC**

The design of an organizational unit and its administrative procedures is affected by many variables. Some important factors which represent the views of various authors are summarized in table 1. It should be noted that the term “two-year college” can be used to describe public or private institutions, community or junior colleges, technical institutes, and two-year branches of senior institutions. Such variety means that any attempt to generalize about a model of influence on LRC organization is difficult.

Certain characteristics of the community college as an institutional type are likely to have an impact on individual colleges, as well as on their units of operation. Besides the persistent problems that deal with open and equal access, educational integrity and adaptation to societal trends, Cohen and Brawer have identified three recent changes that will ultimately affect all of the organizational units of the two-year college. These are: (1) “an inversion in the uses of career and collegiate education,” (2) reduction of the linear aspect of a student’s enrollment as a proportion of the college’s total effort, and (3) an accelerated “trend
### TABLE 1

**SOME INFLUENCES ON LRC ORGANIZATIONAL DESIGN**

<table>
<thead>
<tr>
<th>External Environment</th>
<th>College</th>
<th>Professions (Librarianship, Educational Technology, Instructional Development)</th>
<th>Internal Environment (LRC)</th>
</tr>
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<tr>
<td>State laws</td>
<td>Size</td>
<td>Imitative patterns</td>
<td>Staff attitudes toward governance</td>
</tr>
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<td>District/state system</td>
<td>Age/Stage of development</td>
<td>Guidelines and Standards</td>
<td>Nature of task environment</td>
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<tr>
<td>Current management theories</td>
<td>History</td>
<td>Trends and developments in professional practice</td>
<td>Conditions of work</td>
</tr>
<tr>
<td>Trends in higher education</td>
<td>General administrative patterns</td>
<td>New learning theories/refinements</td>
<td>Desire for organic or mechanistic, flat or tall structure</td>
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<tr>
<td>Technological developments</td>
<td>Leadership style(s)</td>
<td></td>
<td>Number of subsystems needed</td>
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<tr>
<td>Community college characteristics</td>
<td>Philosophy of administration  (conservative/innovative continuum)</td>
<td></td>
<td>Strengths and background of administrator</td>
</tr>
<tr>
<td></td>
<td>Nature of change processes</td>
<td></td>
<td>Nature of cooperative efforts and provided services</td>
</tr>
<tr>
<td></td>
<td>Finances</td>
<td></td>
<td>Faculty status/collective bargaining</td>
</tr>
<tr>
<td></td>
<td>Building site</td>
<td></td>
<td>Staff interests/talents</td>
</tr>
<tr>
<td></td>
<td>Perceived educational role of the LRC</td>
<td></td>
<td>Specialized LTA and/or media technician curriculum</td>
</tr>
<tr>
<td></td>
<td>Defined scope of the LRC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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towards less-than-college-level instruction. Phifer and Person have noted the effects of this level of instruction on the LRC.

Certain other characteristics seem to prevail in the two-year college as well. These include attitudes toward change—the understanding of the need to change and the relatively rapid response rate to necessary changes (as opposed to other institutions of higher education), diversity—an acceptance of and a fostering of different kinds of programs, students, faculty, and staff, and the presence of an entrepreneurial spirit—what Mintzberg describes in terms of managerial role behavior as “searching the organization and its environment for opportunities and initiating improvement projects to bring about change.”

Lippitt and Schmidt have suggested that the concerns of organizations may differ as they move through a development process from birth to maturity. Concerns at birth are to create a new organization and to survive as a viable system. In youth, organizational focus is on gaining stability and reputation, and developing pride. At maturity, the organization may concentrate on achieving uniqueness and adaptability. It is entirely possible that an organization may utilize different structures at each of these stages.

As the youngest American higher educational institution, the two-year college has passed through birth and youth. Some authors now suggest that a kind of “midlife crisis” is upon the two-year college. The three changes noted by Cohen and Brawer, the recent financial crisis in higher education, a stabilizing of enrollment as opposed to the monumental growth of the past two decades, and other factors have placed the community college at an important juncture in its history—a time for redefining its mission, questioning of certain assumptions, and fostering adaptability. The results of this midlife crisis may alter the configuration of academic units in individual colleges, including the LRC.

Administrative and organizational structure is at least partially determined by the nature of the overall organization and the place of the LRC within that organization. As McCaskey suggests, “an organization is a system of interrelated parts so that the design of one subsystem or of one procedure has ramifications for other parts of the system.” Thus the objectives, structure and administrative philosophies and policies of the LRC are at least in part determined by the same characteristics of the overall organization, and changes in the college will ultimately have some effect on the LRC.

If the college is a part of a larger unit such as a community college district or statewide system, or is a multicampus facility, the LRC
organization may be affected. Certain services may be provided to the LRC, such as cataloging and technical processing, a book catalog, centralized ordering, or film circulation. The growing trend of cooperation among libraries themselves provides an even greater diversity of possible services and administrative arrangements. The organizational structure may reflect these arrangements by omitting certain functions and accompanying positions. The administrative responsibility for seeing that required services are provided—whether by contract, through centralized units or some other arrangements—still exists, however, but certain personnel considerations may be removed.

Veit identifies nine factors that influence administrative organization of the LRC. These include: (1) history ("the persistence of an established pattern even after the basis for its continued existence has disappeared"), (2) general administrative college patterns, (3) size of the institution, (4) preferred style of those who are in policy-setting positions, (5) imitative patterns ("inclination to adopt a pattern that has been successfully used in other institutions"), (6) impact of state laws and regulations, (7) "educational role the center is expected to play," (8) district influence, and (9) scope of the LRC.

Bock and La Jeunesse note that the "configuration of the college building site, the philosophy of the college toward learning resources, and...the strengths and interests of the administrator in charge of learning resources all affect whether all components of a learning resources program are housed in one facility and/or are administratively organized under one unit." These authors stress the important role of institutional philosophy, as articulated by the board of trustees, in determining the nature of learning resources programs and other college support services. Their presentation of a model continuum of institutional philosophy (from "Conservative Board/Administration" to "Innovative Board/Administration") and its influence on possible learning resources components is particularly useful in identifying factors which affect LRC organizational design.

In looking at the adoption of the learning resources concept, Holleman suggests that, "realization of the concept has generally been dependent upon historical and political factors peculiar to the campus and upon the initiative and philosophy of the director." She notes that this concept may be easier to implement on a smaller campus and that decreased budgets and a movement toward LRC membership in cooperatives and networks may give the learning resources program concept a new significance.
Added to all of these influences must be the general trends affecting higher education, current management theories concerning organizational structure and governance, and technological developments and available innovations that are relevant to the two-year college setting. Also important are the trends affecting librarianship and instructional technology, as well as the views of the profession(s) toward organizational arrangements as set forth in the “Guidelines for Two-Year College Learning Resources Programs” and “Standards for College and University Learning Resources Programs.” Internally, the age of the college, pressures from staff concerning structure and governance, the nature of the task environment, the conditions under which staff work best, and the numbers and kinds of subsystems needed for all LRC services to be accommodated need to be considered as potential influences on design.

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responsive to change, but is often wasteful of resources and stressful because of its uncertainty. 25

The discussion above suggests possible influences on the administrative organization of the LRC. With such a large number of variables, the development of a single model for the LRC could not realistically be expected. As detailed in the following discussion, both the relevant professional guidelines and survey reports from the past decade support this conclusion.

Organization of the LRC: Background

As noted, the history and development of two-year college libraries has been examined by numerous authors. In these discussions, the pattern of initiation of services, experimentation, rapid change, tremendous growth, and struggle with challenges characterized the two-year college and its library. The need to provide learning and informational materials to an enormous variety of students, combined with the lack of commercially-available materials to address different learning styles, educational needs and new subject areas placed a great burden on learning resources programs.

The two-year college library gradually evolved toward the LRC concept to meet these challenges. This evolution was reflected in the guidelines and standards for learning resources that have been developed by professional associations. In the past dozen years, two sets of guidelines and a set of quantitative standards have been developed by a joint effort of the American Library Association, the Association for Educational Communications and Technology, and the American Association of Community and Junior Colleges to provide support for the development and management of learning resources programs in two-year colleges. In reviewing the development of these documents, Wallace notes that these are not merely library standards. They represent a significant change in philosophy from earlier documents in their support for "integration of library and audiovisual services, the inclusion of production of these services, and the involvement of learning resources actively in instruction." 26

The 1982 "Guidelines" are both general and specific with respect to the organization and administration of the LRC. Differences between the learning resources program of a college and learning resources units which are subordinate to the overall program are carefully delineated. Governance and participation in the form of "involvement of the professional staff in all areas and levels of academic planning," "staff
participation in policy, procedural, and personnel decisions," and the establishment of an advisory committee for the LRC are all specified. Management responsibilities, particularly those of the chief administrator, include budget development and the maintenance of appropriate statistics.  

However, the "Guidelines" reflect the difficulty of developing a single model of the LRC or even a learning resources program in that "no assumption is made that each two-year institution will be more or less identical to every other, and no pattern is prescribed for the administrative structure within the institution." The new "Guidelines" represent a concern for all learning resources being provided by any type of two-year college, and are careful not to prescribe types of units needed by name. They do provide a general definition of learning resources programs and the ideal kinds of services that should be provided. To paraphrase Holleman's analysis: a learning resources program provides the people, equipment, facilities, materials, ideas, services, and management to facilitate and improve learning, and ideally incorporates, under a central administration, the following units: (1) audio-tutorial lab, (2) bibliographic control center, (3) library technical services, (4) library public services, (5) media production, (6) A-V equipment and maintenance, (7) computing services, (8) telecommunications, (9) reprographics, (10) learning labs, (11) institutional archives, (12) faculty/educational development.

Looking at these units, and considering the many factors identified in table 1 that can influence organizational design, it is clear that there are many possible approaches to organizing the learning resources program of a two-year college. These include function, form, subject, language, geography, and clientele; in many cases, some combination of these may be used. Function refers to the "division of work by activity, such as acquisition, cataloging, and reference." Form refers to the arrangement of LRC activities and materials on the basis of their format (i.e., print or nonprint), subject to arrangement on the basis of subject disciplines (e.g., separate collections for nursing, psychology, or architecture), and language to arrangement of activities and materials by language. If services, activities and materials are determined by location, the arrangement is identified as geographical (as with branch or satellite facilities). Clientele becomes a criteria if collections and services are different for various groups of users (e.g., developmental program students, transfer students, continuing education students). Many of these designations are also used in other types of academic libraries as well as in the two-year college setting. In analyzing the
division of services, activities and collections in the two-year college LRC, therefore, it is important to keep both the academic and public nature of the LRC in mind.

Structure in Practice

Studies of LRC organization and administration that are available in the literature reflect the inadvisability of developing a single LRC model and support the lack of specificity in the "Guidelines." While a few authors have been willing to suggest a model for LRC organization, most of the research studies which have examined LRC structure report a wide variety of practices.

In the past dozen years, numerous writers have examined the organizational structure and administration of the LRC. Nearly all of these authors report that the "learning resources" concept which has broadened library services considerably has become the major organizational pattern for most two-year colleges. The trend toward the central administration of learning resources has also been noted by Moore, Westphal, Dale, Veit, and Cohen and Brauer.\textsuperscript{32} Surveys by Bender and Person\textsuperscript{33} indicate that by 1984, this unification was by far the rule, at least as reported in the published literature. The information available about the division of responsibilities and activities within the LRC is less straightforward, however.

In 1970, Fusaro proposed a model for a Library-College Media Center which envisioned a central administrator overseeing five major services each headed by a coordinator or an officer:\textsuperscript{34} (1) study skills center and learning labs, (2) public services, (3) technical services, (4) instructional services, and (5) innovations and curriculum design center. Like the "Guidelines" which followed in 1972 and 1982, this model was (and is) useful for its attention to three major characteristics of the LRC—centralized administration, common services provided and staffing required for support.

Building on the ideas of the "library-college" concept, Allen and Allen also prescribed a merger of library and audiovisual facilities for three major reasons: (1) "Communication today requires a wide variety of materials for students and faculty members in a variety of formats"; (2) "as materials and services become more accessible, the potential for use, and, in turn, the potential for learning becomes greater"; and (3) "a very practical factor is that of control" (that is, if materials and/or equipment are scattered throughout the college, duplication and lack of accessibility may be the result).\textsuperscript{35}
Following these earlier prescriptive discussions was a decade of surveys which have incorporated some description of the administrative organization of two-year college learning resources centers/libraries. Berning examined LRCs in Colorado,36 while Nieball provided a comparative analysis of learning resources programs in Texas junior colleges. In preparing his chapter on "Administrative Organization" for *The Community College Library*, Veit surveyed more than 100 institutions to ascertain organizational patterns. Fourteen of the colleges surveyed were represented in his text as being indicative of characteristic organizational structures. Veit reported that, unlike the past, by 1975 most heads of LRCs were reporting to the chief academic officer of the college as opposed to the chief administrator. These chief academic officers were often called "vice-president" in large colleges and "dean" in smaller schools. Veit also reported on the fluidity of organizational arrangements, noting the nature of change and its influence on the LRC environment.38

In 1975, Thomson examined the characteristics of public comprehensive community colleges in the United States in order to determine the interrelationship between expenditures and service programs for learning resources. Twenty-seven colleges and three district offices whose expenditures were in the top range of learning resources programs nationwide were selected for in-depth study. Twenty-two of the colleges had separate library and media programs, although fourteen had a common administrator of learning resources. Eight had no such administrator, although the heads of each unit might have both reported to a dean of instruction. The library was generally arranged according to conventional categories of "reference and readers' advisement," "circulation," "periodicals," "technical services" and the like. Media services were often split into two groups. Of the eight colleges which had totally separate library and audiovisual units, media services reflected division of clientele, function, facility, short v. long production, and television production v. "other" production. In spite of the separation of units, some libraries also serviced audiovisual materials and operated media labs.39

As part of a study of the implementation of the 1972 "Guidelines" among twenty-three state-supported two-year college libraries in Ohio, Clark and Hirschman reported that LRCs were "well integrated into the organization of the local campuses." The head of the LRC generally reported to the head of the campus or to the university library director in a branch campus situation. Interestingly, at the time of this study, "many of the LRCs did not have organization charts to define external and internal relationships."40
RUTH PERSON

In 1977 Dale reported on assessments of thirty-one "outstanding" colleges. She noted that, "the administrative organization of community college libraries continues the trend toward unified centers noted by Moore and Westphal which house, service and circulate both print and audiovisual materials." In her analysis, Dale also reported that the "typical" college in her survey was called either a library or a learning resources center, that the director had the title of either associate or assistant dean, and that production of A-V materials was handled in a separate area of the center. In the same year, Bock and LaJeunesse's *The Learning Resources Center: A Planning Primer for Libraries in Transition* outlined possible components of a learning resources program (public services, technical services, production services, and related instructional services) and identified specific activities for each. Matthews also described the titles, reporting relationships and characteristics of learning resources administrators, noting that these individuals were confronted with a broader range of problems than those confined to library management. The following year, Dennison also reported on a survey of twenty colleges, finding that patterns of organization were grouped either by: (1) function, (2) faculty (which cut across subject, form and function), (3) geography, and (4) form/function or (5) form/function/clientele.

One of the more comprehensive studies available is Bender's 1980 nationwide survey of 150 learning resources programs. About three-fourths of Bender's respondents indicated that learning resources in their college were administered as one unit. The head of such a unit, most often called a "director," reported to an academic dean in 60 percent of the cases. This director developed the budget, as specified in the "Guidelines," in about 88 percent of the schools.

When initiating the new journal *Community & Junior College Libraries* in 1982, the editor noted that there seemed to be some "disagreement about whether community college LRC's are moving toward or away from the integrated learning resources concept." On behalf of the journal, Holleman conducted a nationwide survey of thirty campuses to see how many of the services outlined in the "Guidelines" were centrally administered by LRC directors. Most of the centers surveyed were large, and two-thirds were located in multicampus districts. One-half of the LRCs integrated at least fourteen of the eighteen services mentioned, with none of the thirty being responsible for computing services. Nearly all possessed other units of the "ideal" learning resources program such as a central location on campus and involvement in cooperative efforts, while nineteen had an advisory committee.
Holleman's statement about the possible disagreement over LRC direction serves as a cautionary note to the information found in the surveys reported. In few cases would the research methodology used justify a generalizable conclusion about the status of all learning resources programs. What they may suggest, however, are continuing trends and issues.

1984: Has the Learning Resources Concept Succeeded Too Well?

To supplement the surveys discussed previously, data from forty additional colleges were collected in 1984. This information included organization charts from both LRCs and their colleges. The colleges ranged in size from 1,900 to nearly 24,000 students, and were located in a representative sampling of geographic areas in the United States. Many overall organizational arrangements were represented, including single-campus institutions, multicampus districts and two-year branches of a state university system. For the most part, these colleges seemed to have embraced the integrated learning resources program concept.

At first glance, the data gathered from this brief survey simply confirm earlier reports. With a few notable exceptions, the chief administrator of the LRC or its equivalent reported to the chief academic officer of the college, who was generally the vice-president for academic affairs or instruction, an associate vice-president of the same areas, or a dean of instruction or administration. The most notable exceptions were several LRC administrators who reported directly to the president of the college and a few who reported to a nonacademic officer such as a vice-president for student development.

The average span of control for the individual to whom the LRC administrator reported was about four, meaning that the LRC may be a competitor with approximately three other units for administrative attention. These other units included a broad spectrum from subject-area division heads to administrators of counseling services or community education programs.

Internally the titles given to the LRC administrator ranged from "dean of learning resources" to "head librarian." This individual also had an average span of control of about 3.5. As with previous studies, internal LRC organization represented division primarily by form, function and geographic location. A few colleges had some division by clientele or subject area. For the most part, organizational structure included at least two of the above categories.
While much of this survey revealed little that is new in LRC development with respect to structure, it did suggest a potential trend that has also been noted in 1984 by Hisle. In conducting a similar study of forty large community colleges, this author noted that when the organizational structure of learning resources services includes units such as telecommunications, duplication centers, testing centers and the like, a "distorted view of the true size of the library and media services components of the college is given." A substantial number of the colleges surveyed had some (if not all) of these services included under the direction of the LRC, as well as other services such as college word processing or college-wide printing services. While these services may reflect learning resources in the broadest sense, and may be mentioned in the "Guidelines" in the context of learning resources, they may tend to decrease emphasis on the central focus of learning resources—library and media services.

Conclusions

The development of the two-year college LRC reflects continuous modification to accommodate the influences identified in table 1. All of the literature and the most recent surveys reflect the enormous difficulty of developing a model of the LRC. The great number of potential influences on design, the wide range of college sizes, and the numerous types of two-year colleges—all of these factors combine to prevent the development of a general description of LRC organization and administration. What seems most constant are the place of the LRC in the college, and the major components included in most learning resources programs.

Anspaugh has talked of a "lack of tradition" in the LRC. In fact, there are now a number of patterns, some of which might be termed traditions, evolving in the two-year college learning resources center setting. The first is a pattern of accommodating change. The second is the tradition of uniqueness of structure. The third pattern may reflect a possible tension as colleges struggle to integrate library and media services with the other parts of the learning resources program and yet not lose focus.

Several factors may influence the organization and administration of LRCs in the near future. The uses of a variety of new technologies will undoubtedly have an evolutionary impact on organizational structure. In discussing such trends, Atkinson suggests that, "no matter where it is found in libraries, automation demands closer analysis of
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work, ¹⁴⁹ and may result in structural change. As a variety of automated systems become more accessible to community colleges and more adapted to two-year college needs, it is likely that the adoption of such systems and processes will alter the structure of the LRC. The increased membership of LRCs in national bibliographic networks ⁵⁰ suggests that this trend may also alter structure. Bunson's description of microcomputer use in a learning resources program also suggests possible future changes to accommodate new technology in the teaching/learning process.⁵¹

Regardless of the directions such changes may take, two factors must be noted. Hall and others remind us that there are two organizations in any institution—the "'official' decision-making organization shown in the organization chart (that) is...relatively passive" ⁵² and an informal organization. This second organization that does not appear on any diagram of structure is in fact involved in structuring information for decision-making, reality-testing and carrying on the informal negotiations necessary for operation. Given the number of potential influences on two-year college LRC organizational design, it is likely that many informal relationships exist that are not represented on organizational charts or in written documents of any kind.

Second, organizational structure should be a tool for effectiveness, structures should facilitate and not hamper progress, and the structure of each LRC should take into account the external as well as the internal environment. In particular, in the rush to accommodate change and to embrace the learning resources concept, colleges should not allow a zero-sum game involving library and media services and all of the other parts of the learning resources program to take place. That is, in broadening "instructional services" or "learning resources" to include computer facilities, testing centers, and the like, the library and its important contributions should not be undermined. Rather, it should remain an integral part of the broad spectrum of services provided to support the teaching/learning process in the two-year college.

References


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19. Ibid., p. 10.


23. Ibid.

24. Ibid.

25. Ibid.


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32. See references 5, 8 and 41.
33. Bender, David R. *Learning Resources and the Instructional Program in Community Colleges*. Hamden, Conn.: Shoe String Press, 1980. (Also see this article for Person's survey.)
42. Bock, and LaJeunesse, *The Learning Resources Center*.
44. Dennison, "The Organization of Library and Media Services."
45. Bender, *Learning Resources*.
46. Holleman, "How Widely Has the Learning Resources Program Concept Been Adopted?" p. 6.
Introduction

In recent years many community college learning resources centers (LRCs) have found themselves in the unenviable position of needing to do more with less. Our patrons have become more sophisticated in their requirements for new and expanded services. At the same time, factors such as declines in enrollment, drying up of outside funding sources, increased staffing costs, and budget cutbacks have combined to exert severe pressure on learning resources programs. Faced with a situation in which even a modest expansion of services can seem an insurmountable task, many learning resources centers are looking to various forms of automation for a solution. Unfortunately, automation is not a panacea. Though new products and services seem to spring up and blossom overnight, none is a heal-all. Decisions about automation are difficult, costly, complex, and far-reaching in their effects.

In this atmosphere, information about automation in community college learning resources centers is a valuable commodity. The knowledge of what peers are doing can stimulate new ideas, save time and ease the decision-making process for those who need to automate services. Accordingly, the intent of this paper is to further an exchange of information about library automation in community colleges. It will present the results of a comprehensive survey of automation in community college learning resources centers undertaken in 1981. In an
effort to provide current information about the status of automation in community college LRCs, it will also present the results of a 1984 telephone survey of current automation in LRC programs.

Methodology

When confronted with the question, "What is the status of automation in community college learning resources centers?" the common response is, "Let's go to the literature and find out." This question, and a literature search which yielded very little published information, provided the primary motive for a 1981 study on automation within U.S. community college learning resources centers. This study used survey research methodology and included both a descriptive analysis of the data and inferential statistical tests to determine relationships among the data. The survey asked respondents to describe their current level of automation and to anticipate their future plans for automated services. The time frame for future expectations was three years.

Another literature review in 1984 showed that very little published information was available to describe the status of automation in community college LRCs. Since the 1981 study had indicated clearly that a large number of LRCs would be adopting automated services within the next three years, the authors used this assumption as a starting point in conducting the 1984 study. A different methodological approach was used to gather information. LRC personnel from colleges which had been identified as having automated services were contacted directly by telephone and an interview schedule was used to guide the phone conversation.

Overview of the 1981 Study

The primary purpose of the 1981 study was to investigate the status of automation in U.S. community college LRCs. A survey instrument was developed, validated and used to gather data in five specific categories: (1) current level of automation, (2) LRC organizational structure, (3) demographic information, (4) future plans for automated services, and (5) attitudes toward and perceived constraints on automated services.

The population for the study was drawn from the 1979 Community, Junior, and Technical College Directory. Restricting the population to only U.S. institutions, the directory provided a remaining population of approximately 1200 individual campuses from public
and private colleges as well as technical institutions. A randomly selected sample of 349 institutions (approximately 30 percent) was drawn from this population. Initial and followup mailings of the survey instrument were completed in 1980. The second mailing, along with a telephone call to nonrespondents, resulted in a response rate of 87 percent.

The survey instrument was intentionally designed for ease of response. Respondents were asked to provide a yes/agree or no/disagree answer. Some questions were designed with several distinct ranges and respondents were asked to select an answer from one of these ranges. Research methodologists realize, of course, that the statistical procedures used and the interpretation that can be made from data are limited by both the size of the sample and by the type of questions used to gather the data. In this study, both descriptive and inferential statistical tests could be applied to the data.

Of special importance from the 1981 study was the finding that, with the exception of the functions of cataloging and equipment inventory, less than 15 percent of the respondents were using any form of automated service. However, when asked to look ahead three years and describe a future scenario, the picture changed remarkably (see table 1). From the standpoint of change between reported levels of automated service and future plans for automated service, the category of circulation was most noticeable. While 10.7 percent of the respondents indicated that automated circulation services were currently being used, 32.7 percent expected to have circulation automated within the next three years. This change reflected a difference of 22 percent.

Other descriptive statistics from the 1981 study showed that, while the reported level of automated services was generally quite low, LRC staff members were positive and receptive toward automation. Over 76 percent of the respondents agreed that their LRC should be involved in automation. Approximately 64 percent indicated that automated services were appropriate for LRC programs of their sizes. Budget, however, was seen as a major constraint on automated services. Of the respondents, 71 percent agreed that their recent budget situation had not allowed them to consider automation. The perception among respondents was that budgetary constraints would continue to exist in the future. Over 56 percent indicated that budgetary prospects for the future did not appear to allow them to consider automation. In regard to institutional priorities, 71 percent of the respondents shared the perception that institutional priorities did not place a high value on LRC automation.
TABLE 1
PARTICIPANTS IN 1984 SURVEY BY TYPE OF AUTOMATED SYSTEM

<table>
<thead>
<tr>
<th>Vendor and Acronym</th>
<th>Name and Location of College</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALS Services Group, Ltd.</td>
<td>Elgin Community College</td>
</tr>
<tr>
<td>(CALS)</td>
<td>Elgin, IL</td>
</tr>
<tr>
<td></td>
<td>Illinois Valley Community College</td>
</tr>
<tr>
<td></td>
<td>Oglesby, IL</td>
</tr>
<tr>
<td>G.L. Systems Incorporated</td>
<td>College of DuPage</td>
</tr>
<tr>
<td>(CLS1)</td>
<td>Glen Ellyn, IL</td>
</tr>
<tr>
<td></td>
<td>Lansing Community College</td>
</tr>
<tr>
<td></td>
<td>Lansing, MI</td>
</tr>
<tr>
<td></td>
<td>Muscatine Community College</td>
</tr>
<tr>
<td></td>
<td>Muscatine, IA</td>
</tr>
<tr>
<td></td>
<td>North Shore Community College</td>
</tr>
<tr>
<td></td>
<td>Beverly, MA</td>
</tr>
<tr>
<td>Electric Memory Incorporated</td>
<td>Chabot Community College</td>
</tr>
<tr>
<td>(EMILS)</td>
<td>Hayward, CA</td>
</tr>
<tr>
<td></td>
<td>Waubonsee Community College</td>
</tr>
<tr>
<td></td>
<td>Sugar Grove, IL</td>
</tr>
<tr>
<td>Data Phase Systems, Incorporated</td>
<td>Illinois Central College</td>
</tr>
<tr>
<td></td>
<td>East Peoria, IL</td>
</tr>
<tr>
<td></td>
<td>John A. Logan Community College</td>
</tr>
<tr>
<td></td>
<td>Carterville, IL</td>
</tr>
<tr>
<td>Gaylord Brothers, Inc.</td>
<td>Moorpark College</td>
</tr>
<tr>
<td>(GS-100)</td>
<td>Moorpark, CA</td>
</tr>
<tr>
<td></td>
<td>South Mountain Community College</td>
</tr>
<tr>
<td></td>
<td>Phoenix, AZ</td>
</tr>
<tr>
<td></td>
<td>St. Clair County Community College</td>
</tr>
<tr>
<td></td>
<td>Port Huron, MI</td>
</tr>
</tbody>
</table>

Analysis of the inferential statistics from the study revealed a number of significant relationships. Conclusions drawn from these relationships indicated that, typically, larger institutions or LRC programs showed a greater tendency to have used or to be planning for automated services in the LRC. They also tended to have more positive attitudes toward automated services. Those who had not been involved with automation or who were not planning future automation viewed budgets or institutional priorities as constraints to automation. While most respondents recognized a need for additional staff training, there was little fear of automation replacing personnel.
Automation and the LRC

Overview of the 1984 Study

The approach taken in gathering data for the 1984 study was to conduct a telephone survey of LRCs which were already known to be using automated services. Given the differences in methodology, it should be noted that the 1984 study was not simply an update of the earlier study. We knew from the earlier study that a large number of LRCs were actively involved in gathering data to support automation, conducting staff training or otherwise planning to implement automated services. We also observed a very strong difference between what LRCs were actually doing with respect to automated services and what they planned to be doing within the next three years. Thus we began with the assumption that there was indeed an increase in the number of community college LRCs which had installed automated services. Instead of simply measuring the level of activity, we chose an approach which would allow us to gather and synthesize narrative information and then report on patterns and relationships which might better describe the current status of automation in LRCs. Table 2 identifies those colleges (categorized by vendor) which participated in the survey. We used an appendix in Richard Boss's *The Library Manager's Guide to Automation* as a starting point to identify vendors of commercially available turnkey systems. Vendors were asked to provide a list of community college clients and we, in turn, attempted to contact colleges which would give a representative cross-section of automation experiences. Staff members were generous with their time and shared freely their experiences with automated services. (We wish to express our appreciation to those colleges which participated in the survey).

Factors Leading to Automation

Since the respondents to our 1984 survey had made the decisions necessary to become involved in a successful automation effort, we were interested in identifying those factors which had impelled them to move to their present level of automated service. A variety of considerations, when adapted to local situations, appears to have been influential. The presence or absence of equipment in the data processing department, the opportunity for cooperative ventures, the size of the materials collection, budget considerations, previous experience in data processing, and availability of local expertise in automation were all mentioned as determinants by the colleges interviewed.

In some cases, the decisive factors arose from the institutional environment and were external to the LRC itself. St. Clair College, for
TABLE 2
CURRENT AND FUTURE AUTOMATED SERVICES
REPORTED IN 1981 STUDY

<table>
<thead>
<tr>
<th>Service Functions</th>
<th>Percentage of Institutions Reporting Batch or Online Automated Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
</tr>
<tr>
<td>Cataloging &amp; Technical Processing</td>
<td>25.9%</td>
</tr>
<tr>
<td>Equipment Inventory</td>
<td>17.3%</td>
</tr>
<tr>
<td>Interlibrary Loan</td>
<td>13.1%</td>
</tr>
<tr>
<td>Circulation</td>
<td>10.7%</td>
</tr>
<tr>
<td>Serials Holdings</td>
<td>9.3%</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>7.3%</td>
</tr>
<tr>
<td>Media Production</td>
<td>3.4%</td>
</tr>
<tr>
<td>Equipment Scheduling</td>
<td>1.7%</td>
</tr>
<tr>
<td>Film Scheduling</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

example, reported that they were using a punched-card system when an institutional decision was made that the hardware upon which this system was based would no longer be supported. This situation, coupled with a very short lead time and limited resources, prompted St. Clair's choice of the GS-100 system. In addition, the college cited as advantages: simplicity of approach, the stability of Gaylord's reputation, the reasonable cost, and the company's responsibility for software performance without the need for local data processing expertise.

The College of DuPage had also reached a turning point as a user of institutional data processing services. They had moved from a punch-card system to a locally-developed online circulation system run on the institution's mainframe. As the LRC's collection of materials expanded and circulation activity increased, response time was degraded and operation of the library system as a shared application could no longer be supported. Here, the availability of sufficient local funding, the background of successful automation efforts, and the requirements of a large collection combined to indicate the need for a stable and proven approach, and culminated in a decision to purchase their own CLSI installation.

In contrast, the decision to automate can also be seen as a matter entirely within the LRC itself. One of the primary reasons for Moorpark's having decided to adopt an automated system was the need to gain greater control of its inventory. It was felt the expense could be
Automation and the LRC

recovered by reducing the cost associated with overdue and delinquent materials. As one campus in the seven-campus Maricopa County Community College District, South Mountain Community College was the most recently constructed of the colleges contacted (only four years old). Its LRC also had the smallest collection—approximately 16,000 titles. For the LRC director at South Mountain, the decision to adopt the GS-100 system was clearly the first step toward a much more comprehensive automated system. Of the seven campuses, only South Mountain installed the system. But it is a new library with limited staffing and the GS-100 system was a cost-effective alternative. Given the small collection and an existing machine-readable bibliographic file for conversion, it was also a fairly easy task to install the system. Future plans call for districtwide planning leading toward a shared system for circulation, serials and public access catalog.

Among several of the LRC administrators interviewed, relationships with other institutions appear to have been very influential in initiating automation. Reciprocal loan agreements among peers seem to have established a climate in which individual members, regardless of size or previous experience, could become automated.

Consortium participation was also used as a vehicle through which automation could take place. The interview with the administrator of the Illinois Central College LRC revealed an example of this. At Illinois Central College, long-standing "gentleman's agreement" relating to resource sharing and reciprocal borrowing provided the framework for a cooperative automation project. Although Illinois Central had previously investigated local development and indeed had designed and tested a prototype system, it was the consortium alternative that has prevailed. A separate entity, the Resource-Sharing Alliance of West Central Illinois was established. This consortium consists of four library systems (from the Illinois network) which will share Data Phase software installed on centrally-located hardware. Although all costs of overhead as well as hardware and software expenses will be prorated among members, the agreement yields a reasonable charge for each of the eighteen participants. Although decision-making within the group has required some compromises by individual members for the good of the group, benefits have outweighed this constraint. Bill Lindgren, Director of Learning Resources at Illinois Central College, felt that the group approach provided not only cost savings, but it also made possible a more sophisticated system than would have been feasible locally, and made available more resources within a smaller geographic area. The power of this approach is attested to by the impressive array of
outside funding secured by the consortium, specifically major LSCA (Library Services and Construction Act) support beginning with the RFP (request for proposal), through purchase of the system. LSCA has also provided funding for a recent study on telecommunications alternatives.

Another midwestern consortium has just begun the process of installing hardware and software using CLSI. Referred to as Quad Linc, the consortium is composed of sixteen libraries and is noteworthy for two reasons: it is a large, bistate (Iowa and Illinois) consortium of multitype libraries, and it is the first CLSI consortium to use full MARC records. In addition to Blackhawk Community College in Moline, Illinois, Quad Linc also includes three colleges in the Eastern Iowa Community College District. The Iowa colleges are: Clinton Community College, Muscatine Community College, and Scott Community College. Tom Hanifan, Assistant Dean for Library Services at Muscatine Community College, noted that the motivation for libraries to participate in a consortium effort was quite different from one to another. In the case of public libraries, he felt the circulation function was of paramount importance. With his community college, he cited the need to deal with problems involving the card catalog. One of the reasons given for using a full MARC record for building a bibliographic file was the possibility of moving to an online, public access catalog (OPAC) at a later date.

North Shore Community College also became involved in automation as a member of a consortium. It is the only community college in a CLSI cluster of six members. Though the network is smaller than the one established in central Illinois, North Shore cites similar benefits from cooperation.

For Illinois Valley Community College and Elgin Community College, consortium membership provided not only the impetus toward automation but also led to the development of the system itself. Funding was awarded to the Northern Illinois Learning Resources Cooperative (NILRC) for the design, development and testing of an automated library system tailored specifically to the needs of community college LRCs. Elgin Community College functioned as the host institution for the project, which produced the CALS system. The system is noteworthy for a design phase which included a panel composed of consortium members who served as consultants to provide expertise in both library and data processing requirements. The system focused on a comprehensive approach to library automation and emphasized services (such as audiovisual scheduling) required by community college LRCs.
Hardware Options

Hardware and communications networks used by the respondents to our phone survey reflect the multiplicity of options available in today's marketplace. There are mainframe systems, minicomputers and micros; the computers can be dedicated or shared; and the host site can be remote, local or housed in the LRC.

The users of the Gaylord system are participants in a distributed processing system. This network consists of a central computer in Syracuse, N.Y. functioning as a mainframe to which users are connected by switched phone lines. Local installations consist of microcomputer systems which gather circulation transactions during the day. They then function as intelligent terminals, i.e., ones which can relieve the mainframe of some basic editing and processing functions, for data transmission to the central facility. Processing of user data is done with batch updates to the system each night.

Another library system installed on a mainframe computer is CALS, which uses IBM equipment and systems software. In this case, the library software package is installed on Elgin Community College's own mainframe, which is shared with other applications. The terminals used by the LRC for library processing are also available for other online applications within the institution. All functions of hardware maintenance and operation are performed through the college's data processing department. A similar technical environment exists at Illinois Valley College where CALS is being installed.

In contrast, there are also turnkey packages on minicomputer-based systems. The CLSI systems employ dedicated minicomputers; they are not used for functions other than the library application, though there may be several libraries using the same system. The CLSI system at College of DuPage uses its own minicomputer which is housed in the college's data processing center and operated by the college's data processing staff. Maintenance on the system, however, is performed by CLSI under contract with the college. North Shore Community College is host to a CLSI system which is shared with five other users connected by leased phone lines. Similarly, Lansing Community College has expanded its CLSI system to provide service to two remote sites for the Lansing Public Library.

The Data Phase minicomputer-based system chosen by the Resource-Sharing Alliance of West Central Illinois is housed at Illinois Central College and is shared among eighteen users. In contrast, John A. Logan Community College, as a member of another consortium using Data Phase equipment, is a satellite user of the hardware. The
equipment is located at the Shawnee Library system headquarters and the college is linked to the computer by a private phone line. The EMILS system at Chabot College uses a minicomputer located in the learning resources center itself and is operated by the library staff. Waubonsee Community College will install EMILS on a Hewlett Packard minicomputer which is housed in the data processing center and operated by data processing staff. Since Waubonsee has other Hewlett Packard equipment, it is possible that the library equipment could be used as a backup in an emergency, but priority on the equipment resides with the LRC.

In general, these users seemed satisfied with the hardware used for automated library systems. The equipment seems to have demonstrated sufficient stability of performance that it is now a cause for anxiety among those dependent upon its operation. In fact, the College of DuPage particularly cited minimal downtime and good response time on its CLSI system. Among the users we interviewed, the areas of concern related to hardware were found in negotiating contracts for maintenance of the hardware or providing maintenance of the equipment. For example, both Lansing Community College and the College of DuPage indicated disappointment with the service procedure for their terminals, which entails boxing and shipping them to a regional service center and can result in a turnaround time of up to several weeks.

Conversion Strategies

It became clear during the interview process that community college LRCs had exhibited a wide diversity in their approach toward implementing automated services. Some institutions followed what might be considered the traditional approach of beginning with bibliographic control. This generally means building a bibliographic record, undertaking a conversion process to create a file of bibliographic data, and ending with the installation of an automated circulation system. Perhaps the best example of this was the procedure followed by the members of the Resource-Sharing Alliance. These institutions were participating in an automation project as members of a consortium, a structure which dictated the need for a systematic approach. Illinois Central, therefore, first performed a complete retrospective cataloging task using their OCLC archival tapes to convert to their CLSI system.

Although the College of DuPage established its system independently, the large size of its collection and the existence of a previously automated system also dictated a traditional approach. A complete
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bibliographic database was created before they began to use their CLSI circulation system. For ongoing conversion, College of DuPage uses a software link that allows immediate updating of their CLSI data file from OCLC entries.

At Illinois Valley Community College the library replaced the card catalog with a COM (computer-output microform) catalog nearly a decade ago. The data file which is used to produce this catalog formed the basis for a conversion to the bibliographic database of the CALS system.

In the absence of any data files from prior automated systems, or with smaller collections, some colleges have chosen other options. Chabot College, for example, first installed the circulation software for its EMILS system, and then converted its collection "on the fly," creating an abbreviated record as part of the circulation process.

At Elgin Community College, though conversion proceeded from bibliographic control to later circulation, a unique procedure was created for gathering the bibliographic data. Elgin Community College did not have usable data from its previous batch, punched-card circulation system, nor was it then an OCLC user. Elgin's LRC used the card catalog division of the Library of Congress as a supplier of cards, so it seemed logical to turn to this agency for help in obtaining MARC format data for conversion to the CALS system. Although LC had not previously offered this service to library users, the suggestion was met with helpful enthusiasm. A protocol was worked out whereby Elgin submitted tapes containing the Library of Congress card numbers (LCCNs) of the desired materials. LC matched these against their files and returned tapes containing the full MARC record. The price agreed upon at that time was seven cents per delivered record. This process has operated smoothly with excellent turnaround time and has yielded a hit rate of over 80 percent. LC is currently offering this service to other interested users.

Users of the Gaylord system can begin their conversion process with help from a microfiche file provided by the vendor. This file contains bibliographic records for items already entered into the system. By selecting control numbers from the microfiche file for items which match those in the collection, the librarian has access to the basic data needed for conversion. Or alternatively, library customers may choose, as did Moorpark, to convert manually with the help of a series of screens formatted for input.
Current Issues and Conclusions

Participants in the telephone survey suggested a number of issues which were of current interest and concern to them. Cost factors were mentioned, in particular concerns about the impact of copyrighting the OCLC database, and the rising cost of telecommunications. There was a certain realistic awareness of the continuing burden of the costs of automation. Due to the reliability and stability of today's equipment, problems with hardware were not stressed in the interviews. Software difficulties remain, and users identified specific problem areas within their software packages. However, perhaps as a result of increasing experience in automation, users revealed growing acceptance and understanding of vendors' difficulties in maintaining and enhancing complex software. Users of library software are becoming literate and discriminating consumers, whose concerns reflect the need to work with their vendors in a partnership to which they have made a significant commitment. It is therefore not surprising that issues relating to communication were of particular interest to those we interviewed.

It was apparent in the 1981 study and reinforced in the 1984 study that community college LRCs do not have the breadth of staffing to include specialists in library automation. This means that LRC automaters are essentially dependent upon their vendors for expertise. Several users emphasized that companies must be aware of the importance of putting knowledgeable people in the field. In addition, users stressed the necessity for direct interaction with problem-solvers in the vendor's organization; where access is restricted, they reported frustration and dissatisfaction. Several users emphasized the need for regular newsletters from their vendors and were interested in participating in users' groups. They also stressed the importance of training procedures and the essential need for good user manuals.

Communication not only between vendors and users but also throughout the population of users of automation was emphasized as well. It was identified as a recommendation in the 1981 study and appeared very evident in 1984 as well that there is a need for vehicles such as professional organizations, publications, conferences, and workshops to enhance the exchange of experience in automation activities.

Throughout the interview process the diversity of approach demonstrated by the respondents was striking. There was variety not only in the organizational approach to automation and the hardware and software selected, but even in the choice of service functions deemed essential to automate. Though all of the institutions contacted are now
automating their circulation process, some did so only after first establishing bibliographic control through membership in an automated cataloging service. Others consider this process of secondary importance or not needed at all. To some users, online database searching represented a simple, inexpensive means of taking a first step into automated services; and others, even with considerable automation experience, did not incorporate searches into their services. Perhaps automation in the community college environment is a process characterized by a less precise vision of what is necessary and what procedures are required than is the case in other academic libraries. It seems that problems arising from our relative inexperience in automation, our isolation from our peers, our smaller size and more limited resources are counterbalanced by a greater degree of freedom and flexibility in decision-making and an ability to experiment and make use of serendipitous solutions. It was clear from our survey that users followed automation paths that were directly related to individual campus needs. While many different patterns were apparent, users were unanimous in describing their experiences as successful. Insofar as their automation efforts reflected a diversity and responsiveness to local needs, they exemplified one of the unique strengths of the community college movement.

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Learning Resources Cooperation: It Can Be Successful

RALPH G. STEINKE

Library cooperation is far from a new development. Library networks, union lists, interlibrary loan, resource sharing, accessing national databases are all terms that are part of every library professional's vocabulary and working environment. Books and articles have been written about library cooperation detailing the benefits and pitfalls as well as describing some of the successful and not-so-successful efforts. Being a subject of primary concern to the profession, a number of bibliographies have been compiled in order to provide quick access to the literature.

Yet one aspect of library cooperation that seems to be little chronicled is that of cooperation among community college libraries, or more accurately, community college learning resources centers (LRCs). The aim of this article, therefore, is to share some much-needed information on the subject which will be useful to fellow professionals. This paper traces the development of learning resources cooperation in northern Illinois with an analysis of why and how it has been successful.

The Community College Philosophy and the Learning Resources Concept

The comprehensive community college movement is a comparatively recent phenomenon in American educational history. Although

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two-year institutions of higher learning were established earlier, it was not until the 1960s that community colleges enjoyed a period of rapid growth—in numbers and in size. The mission of these new colleges was to offer educational programs to those Americans previously underserved or unserved. One major program was developed to provide the first two years of a baccalaureate degree to students who could not afford to leave home and attend a senior institution for the full four years. Another program was directed toward those who needed training to enter vocational-technical occupations. A third component was created to enable individuals to acquire basic educational skills thereby permitting them to attain more rapidly their educational and occupational goals. The last component furnished a wide variety of short courses, workshops, seminars, and general interest presentations to citizens of the community served by the college.

Because of the community colleges' wide program scope, the academic or educational support unit had to be comprehensive as well. The result was the origin of the learning resources center, a conceptualization that encouraged the gathering together of differently formatted materials (print and nonprint) into one center. To facilitate use of nonprint material, the hardware necessary to project it also became the responsibility of the learning resources center. The LRC, therefore, encompassed both the traditional library with its predominantly print materials and the audiovisual department with its nonprint software and hardware.

The LRC and the Need for Cooperation

The merging of library and audiovisual areas, even though it occurred under a bewildering array of organizational structures throughout the community college sector—to a greater extreme at some institutions and to a lesser one at others—most frequently brought both units under a common administration. This forced LRC staff from the top down—and whatever their educational background—to become at least familiar with (if not comfortable with) a variety of media and equipment.

In addition, higher administration came to rely upon learning resources administration for budgetary and technical advice on technological questions. Particularly in medium-to-small community colleges, alternative education programs were often placed under the jurisdiction of learning resources because audio and visual equipment were used in self-paced programs.
Learning Resources Cooperation

Most affected by these developments were learning resources administrators whose educational backgrounds were originally either in library science or instructional media, but seldom in both. It was natural for them to look to fellow professionals, both within and outside their colleges, for advice in matters for which they had not been trained, but for which they were called upon to make intelligent decisions. Furthermore, learning resources staff were aware that expensive equipment, facilities and materials could be more effectively utilized in a cost-sharing arrangement that would avoid duplication. Turning to counterparts at neighboring community colleges fostered cooperative efforts, formal and informal. In northern Illinois, this cooperation led to the formation of a learning resources cooperative that has grown to major magnitude, and it serves here as a model.

The Background of the Northern Illinois Learning Resources Cooperative

In October 1973, eight suburban Chicago community colleges submitted a grant proposal to the Illinois Board of Higher Education requesting funds to plan and evaluate the formation of a community college learning resources center cooperative. The justification of the proposal was to facilitate the cooperative exchange of locally produced instructional materials and, therefore, to prevent duplication of effort. Program objectives were established to identify the available materials and determine the legal ramifications of duplicating and distributing them. An additional objective was to determine the most effective type of organization needed in order to operate the proposed cooperative. One month later the colleges were notified that the grant proposal was approved and $8000 was awarded for the initial planning and development of the cooperative.

From that early beginning, interests quickly broadened to include cooperative purchasing, information and resource sharing, and staff development. Once the decision was made to form a nonprofit corporation, bylaws and membership agreements were drafted, and in May 1975 the Northern Illinois Learning Resources Cooperative (NILRC—pronounced nil-rock) was granted not-for-profit corporate status by the State of Illinois. Since then NILRC has grown from its original membership of eight institutions to its current one of thirty-nine—fourteen full members and twenty-five associates (see fig. 1). A number of other membership applications are pending.
The Success Factors of a Learning Resources Cooperative

"The overriding problem in library cooperation is in getting people to work together productively." NILRC has been able to overcome this problem and become successful for a variety of reasons. Because it is a community college cooperative, representatives from the different institutions are like-minded in their sharing of a common philosophy which includes the learning resources concept. All members believe in comprehensive, integrated learning resources programs that extend to the educational community as well as the community at large. This does not mean that all members think identically. Indeed, there are healthy
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differences of opinion created by diverse educational backgrounds and professional areas of expertise. At meetings of the cooperative, those seated at the table may include persons versed in cable television; ITFS (Instructional Television Fixed Service); satellite transmission; microcomputer hardware and software; automated library and audiovisual systems; online searching; radio and television production; and library reference, circulation, or technical processing. What often results are discussions characterized by a spontaneity and openness to new ideas. The cooperative, therefore, becomes a macrocosm of the personalities of individual members, and the board meetings become information sharing and staff development activities in and of themselves. The end product is the fostering of a cooperative spirit whereby delegates are able to draw upon and share interests and contribute strengths while developing bonds of trust and respect for each other.

From a different human perspective, the success of the cooperative can be explained through its formation at the grassroots operational level by learning resources people. What has developed, therefore, has been a bottom-to-top-line communication model rather than the more common top-to-bottom one. Because of this, NILRC's agenda focuses on practical issues and problems experienced by learning resources staff.

The cooperative's bylaws and membership agreements heavily contribute to its success in that they (1) buttress the community college learning resources concept, (2) provide an important umbrella of legal protection necessary for dealing with NILRC internal and external affairs, and (3) establish a unique framework for governance. The bylaws and membership agreements insure community college control by permitting only public community colleges in northern Illinois to become "full" members. Full membership includes certain rights and responsibilities among which are the right to vote and the right to hold office. Associate membership is open to any public or private Illinois post-secondary educational institution which is not a full member. Associates enjoy all the rights and privileges of membership except the right to vote and the right to hold office.

The unique governance framework described in the bylaws encourages a rotation of elected officers, thereby maximizing the growth of leadership qualities among delegates. An effect of shared governance is that the large majority of delegates have come to approach matters from a group perspective rather than from a singular, institutional view. Rotation of leadership, furthermore, prevents an institution or individual from dominating the activities and decisions of the cooperative.
Consequently, the rotated leadership contributes to the open forum in which delegates freely and candidly discuss and take action upon the issues.

The bylaws and membership agreements also contain minimum requirements. All that is actually mandated of a full member institution is regular attendance of its delegate at meetings and the payment of annual dues. Associate members need only pay dues. Out of such an arrangement comes what can best be termed as "organizational fluidity." Operational goals are annually formulated, reviewed and modified. Delegates and member institutions can volunteer and participate in cooperative projects of their own choosing. Each institution is easily able to maintain its autonomy.

The dues structure and voting method further contribute to cooperative flexibility. Annual dues of $300 per institution were established in 1975 and they have not increased since for full members. The low fee has made it possible for even the smallest college with a limited budget to join and enjoy the cost benefits that group contracts have provided. In combination with the one vote per institution, as stipulated in the bylaws, the dues structure has mitigated against bloc development. No large college v. small college or "have" v. "have not" phenomenon has occurred. In fact, membership privileges and responsibilities have equated well. Smaller colleges, often more flexible organizationally because of their size, have been able to meet more immediate needs such as furnishing logistical support services on short notice. On the other hand, the larger institutions frequently have made contributions in sharing special facilities, material and human resources when the occasion has demanded it.

A geographical factor has also played a role in NILRC's success. Full-member colleges are situated within easy travel distance of each other and they take turns in hosting regular board meetings or other cooperative activities. The practical outcome is one of saving delegates' travel time and expense since they can easily drive or carpool to the regular meetings.

The Activities of a Learning Resources Cooperative

Because of its comprehensive nature, the Northern Illinois Learning Resources Cooperative has engaged in a wide range of activities over the last ten years. All of these efforts have revolved around three major interests: cooperative purchasing, information and resource sharing, and staff development.
Cooperative Purchasing

Cooperative purchasing has evolved to include agreements with book vendors, library supply companies, 16mm film and videotape producers and distributors, audiovisual suppliers, off-air television licensing agents, a video duplicating house, and instructional telecourse producers and distributors.

The cooperative has achieved its most dramatic financial success in the negotiation of instructional telecourses:

A telecourse is a complete instructional system that presents a body of knowledge through the use of sight, sound, color, movement, and print. Basic components of a telecourse, in addition to the television programs themselves, usually include a main textbook, a student study guide, tests, a faculty manual, and arrangements for interaction between students enrolled in the telecourse and the faculty supervising the course.

The obvious cost advantages to cooperative telecourse leasing or purchasing are significant reasons many Illinois institutions have applied for cooperative membership. Equally important, cooperative telecourse leasing/purchasing has influenced how NILRC conducts its business affairs.

Shortly after the cooperative was incorporated in 1975, a group purchase of the "Ascent of Man" series was negotiated. Two noteworthy practices evolved from this. The first of these was the development of an internal billing system necessitated by the purchase. Contract terms required NILRC to buy one set of "Ascent of Man" for the list price, in return for which the vendor would provide twenty-five duplicate sets at a package price. The list price of the first set and the package price of the duplicates were then totaled and divided twenty-six ways. As institutions elected to purchase, the NILRC treasurer billed them one-twenty-sixth of the total cost for each purchased set. Each college then paid its share of the cost into the NILRC treasury, and the NILRC treasurer transacted the entire purchase with the vendor. Such an internal billing system currently exists, although it has become much more sophisticated procedurally.

A second practice begun at this time was the negotiation of unlimited duplication rights to telecourse materials because the predominant means of delivery was and remains nonbroadcast. The right to duplicate was determined primarily by the limitation of delivery options available to the suburban Chicago colleges. The myriad of cable companies between and within college districts created situations of such complexity that each institution had to decide whether it would or could use
cable delivery effectively. Open-air telecasting proved discouraging for a different reason. Few commercial or PBS (Public Broadcasting System) channels showed much enthusiasm in cooperating in an educational venture regarded of low potential in profits or viewer interest. The only other delivery method that appeared practical was that of nonbroadcast videocassette, with equipment and materials to be placed in on-campus and off-campus learning centers. Since nonbroadcast delivery required multiple sets for each college, the negotiation of duplication rights in television contracts was essential.

Today the nonbroadcast videocassette method accounts for more than 90 percent of the telecourse enrollment at NILRC colleges, and even though recent developments regarding cable and open-air broadcast hold some promise for significant enrollment increases, nonbroadcast delivery still continues as a major way to serve students. Out of 9683 telecourse enrollments in 1983-84, nonbroadcast accounted for 9105. The primary reason for this is the flexibility nonbroadcast provides. It easily lends itself to an open enrollment system whereby students can enroll and complete a course any time during the year. Additionally, the availability of videotapes at convenient locations which are open long hours throughout a college district permits students to view one or more lessons at a time and rate of speed convenient to them. The recent boom in the sale of videocassette recorders (VCRs) has further added to the convenience factor, and many NILRC colleges are now circulating lessons for home use. A self-paced learning environment through use of the VCR offers few restrictions.

Cooperative agreements other than those concerning television may or may not take advantage of the internal billing system. Under the agreement negotiated with a large book vendor, an additional discount is given each NILRC college in return for an annual minimum dollar amount guaranteed by the cooperative. Each college orders and is billed separately, and books are shipped directly to each college. This arrangement has also been used for reference and subscription book orders.

Agreements to purchase commercially-produced 16mm films or videotapes (nontelecourse) differ from one company to another, but generally they are channeled through the NILRC treasury because it is financially advantageous to do so. Major cooperative purchases made of items in the National Geographic film-tape collection and Time-Life holdings were examples of this. Rights to off-air tape television programs are usually negotiated by the cooperative with individual colleges making the commitment, and then making payment to the NILRC treasurer who in turn pays the licensing center.
These discussions are also underway with periodical subscription agencies and computer software vendors to determine if cooperative purchasing might produce cost savings in regard to their products.

**Information and Resources Sharing**

From its inception, the Northern Illinois Learning Resources Cooperative has been interested in information and resource sharing. One of its original objectives, as stated earlier, was to facilitate the exchange of locally produced instructional materials. Although this exchange did not develop in the way envisioned, the strong commitment of the NILRC membership led to other information and resourcesharing projects.

A prime example of such a project is the development of a computerized software package for learning resources centers. A team of NILRC personnel composed of librarians, audiovisual specialists, and computer experts developed a plan for the implementation of an automated LRC management package. With the aid of an approximately $200,000 award to the cooperative by the U.S. Department of Education, further research and development as well as initial installation was carried out at Elgin Community College, the host site. The computer package, referred to by the acronym CALS (Comprehensive Automated Learning Resources System), is a flexible LRC management system, designed to operate in an IBM computer environment. It accommodates all media formats and satisfies a variety of LRC service needs, including online circulation control, audiovisual equipment scheduling, art department slide collection retrieval, and records management. A wide variety of reports are generated, either automatically or on request. Future plans include the development and testing of an online catalog with patron-access modules.

Unlike turnkey systems which require the purchase of separate equipment, CALS uses the college's own computer equipment with the data processing staff handling routine maintenance. This conceptual design helps to keep the costs of automation down. The high degree of integration on CALS also greatly enhances LRC services without requiring additional staff, another cost issue. CALS software is marketed through CALS Services Group, Ltd., a team of community college people with a unique combination of skills and interests in media services, librarianship, and computer technology.

As the cooperative spirit of NILRC members has increased, the level of information sharing among them correspondingly has risen. Formally, the sharing process takes place at regular monthly meetings.
where delegates are able to draw upon and benefit from the diverse areas of expertise of other delegates. Informally, delegates often share ideas while carpooling to regular board or committee meetings. With increasing frequency much informal sharing occurs by telephone. The development of the informal telephone network spawned an annual NILRC activity: the publication of the *Illinois Learning Resources Personnel Directory*, which contains the names, addresses, and telephone numbers of all Illinois public community colleges and the names, titles, and telephone numbers of all LRC staff members.

To provide for even more efficient information sharing, the cooperative currently has under study the development of its own electronic mail system. Such a system would not only be used by learning resources personnel, but it would be offered to other administrators in order to expand cost- and time-saving benefits to each college. Additionally, it would serve to raise the visibility of learning resources in a positive sense before higher administration.

**Staff Development**

The last, albeit an equally important area of NILRC activity, is staff development. Staff development activities usually occur as the result of two processes. The first is evolutionary whereby an item consumes more and more time at regular board meetings or among discussions of LRC staff in the cooperative. Once the staff development need is identified a subgroup is formed to plan and implement staff development activities. Someone from the subgroup is designated to report at board meetings the actions consequently taken. Subgroups focus on special topics of interest or concern and assess their potential for workshops or training activities for NILRC members.

Instructional television is one example. Television matters began to occupy an increasing amount of regularly scheduled meeting time. Not only were more colleges participating in televised instruction, but the cooperative's annual telecourse preview day (launched in 1977) had grown to such proportions that planning it took considerable time and effort. Recent preview days have had eighty to ninety preview packets on display, and approximately 150 faculty and staff from Illinois colleges have attended.

The Telecommunications Advisory Group (TAG), a standing committee consisting of telecourse coordinators from NILRC colleges was formed in April 1981 to cope with this growing activity. The committee now meets on a regular basis to discuss and act on television matters. Institutional telecourse commitments, whether lease or pur-
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chase, are made at TAG meetings; and the TAG contracts manager negotiates with producers or distributors. The status of television affairs is reported at regular NILRC meetings by the TAG chairperson. In this way NILRC delegates are kept informed without television matters monopolizing the agenda. Beyond that, TAG has explored more cost-effective ways to use instructional television and radio. The outcome has been coproduction and other efforts that convert NILRC from a passive consumer organization to an active participant in telecourse planning and delivery. The cooperative joined with the Southern California Consortium for Community College Television, the lead producer, in providing support for the computer telecourse, "The New Literacy." NILRC has also linked up with Dallas County Community College District in the production of a new introductory business telecourse, "The Business File," due for a fall 1985 distribution.

Alongside the coproduction effort, renewed interest and action has occurred in the production area. Three new telecourses have been produced by NILRC colleges and are now being marketed. Instructional radio courses have also been developed, and the marketing structure is now being prepared to make them available outside NILRC.

Rapid Growth and the Future

Within the last few years the NILRC ranks have grown rapidly in number. Such sudden growth often indicates an organization's success, but just as frequently can bring problems that need to be confronted in order to insure present and future stability. In the case of NILRC, it is among the associate member ranks where growth is most dramatically increasing. Many of these new associates are four-year colleges, which raised certain timely questions in the minds of many NILRC community college delegates. For example: Should full membership status be opened to institutions other than community colleges? Was it fair to permit a college to join as an associate member and reap all of the cooperative benefits while full members, as office-holders, had to shoulder an ever-increasing workload because of the additional numbers? Should there be an annual dues differential in recognition of this? Was it time to compensate certain officers because of the extremely heavy and time-consuming duties they now had to assume?

The rapid growth and subsequent questions raised were considered significant enough by the delegates that it was decided to form a temporary committee to investigate the issue and bring back specific recommendations to the NILRC full board. This membership committee,
composed of full and associate members, concerned itself with these questions. Immediately, it was realized that the questions involved NILRC's organizational structure as well as membership status. Some hard decisions were going to have to be made. The committee was faced with questions directed at the very purpose and philosophy of the cooperative. At the same time, the answers to other structurally related questions could have significant impact on the cooperative's organizational style.

In addressing the membership question, the committee decided that NILRC should remain true to its original intent, that of a comprehensive community college learning resources cooperative. It was reaffirmed that its philosophy was a primary reason for its success and should remain intact. Additional membership categories were created and language concerning existing ones was clarified.

The examination of the organizational structure was more difficult in terms of possible pitfalls. Committee members were sensitive to the fact that the cooperative had thrived with an informal, flexible framework. In addition, they were aware that for some delegates, talk of reorganization raised "fears of an impending bureaucracy." Yet the committee recognized that future problems would surface if the more informal, haphazard business and communication procedures were not rationalized. Therefore, members were most deliberate in evaluating the alternatives.

As is so often the case, the result was a compromise. Certain officers, such as treasurer and secretary, were to receive annual stipends because their responsibilities had increased far beyond what could be expected freely and voluntarily. At least as important was the committee's decision to recommend the formation of a "planning group." Led by NILRC's president-elect, the group would look ahead to the future. In that way, the cooperative would become more proactive rather than reactive and be better prepared to act upon issues and events at the most opportune times. Once the committee had finished its study, a full report of its recommendations was made to the NILRC board. With minor exceptions, the board accepted the recommendations.

The most valuable outcome of the membership question was the lesson learned from the evaluative experience: There are ways the cooperative can respond to fundamental challenges and can influence the directions it takes in the future.
Conclusion

As can be ascertained from the NILRC model, community college learning resources cooperatives can be successful. That success, however, takes effort from the people involved and just does not happen accidentally.

Along with the human element, a learning resources cooperative must have other foundation stones. Those supports include a common philosophy—the comprehensive community college and learning resources concept. Bylaws and membership agreements help to define organizational structure. Additionally, the supports encompass focal points that provide meaningful direction: cooperative purchasing, information and resources sharing, and staff development. Finally, methods for coping with successful growth insure a cooperative's ability to adjust to sociological as well as technological change. Such a foundation may not guarantee successful cooperation. Nevertheless, without it, library or learning resources cooperation of any type can easily founder.

References

Introduction

"En casa de herrero, cuchillo de palo."

—Spanish proverb

It is fitting to find inspiration in a Spanish proverb for an article that deals with how far the arm of the library reaches out to the college student who is deficient in academic skills. Translated, the proverb states, "in the home of the blacksmith, only knives made of wood are used." The humor of incongruence as one visualizes the use of "wooden knives" is similar to what educational systems have been doing with those labeled as disadvantaged or academically deficient students. In addition, a look at the library's participation or lack of it in remedial, compensatory or developmental programs makes one wonder if educators are using "wooden knives" when more adequate tools would be appropriate.

A final application of the "wooden knives" concept is the style and approach of this article. While written by a librarian and an educator, the research approach and the style are not the traditional fare. A review of the literature yielded minimal entries on the topic of libraries playing a leadership or active role in planning, designing and implementing a "remedial," "developmental" or "compensatory" education program in a college or community college setting. Furthermore, few of the...
papers presented at conferences or articles published were written by librarians. The library's role in developmental education programs—if significant—results in a name change for the library. The library becomes known as a "learning center," a "reading lab," a "study skills lab." This phenomenon is important. If the library is called something other than a library, the administration of such service is frequently in the hands of a nonlibrarian, a discipline faculty member—with discipline (i.e., content) knowledge but no administrative, supervisory preparation or experience; or may be in the hands of a dean, director or chairperson with academic, administrative experience but who holds an education degree instead of a library science degree.

Rippy and Truett's work on a survey of Texas community college libraries found that the role of the library in remedial education was a "neglected topic."1 The neglect is not only in lack of research and/or articles. The delivery of services to address the needs of academically deficient college students has not been identified and integrated formally with the mission of a library in a community college setting. Yet, and fortunately, informal arrangements between developmental educators and librarians have taken place. The rest of this article is a telling of how, when and why it happened at the North Campus of Miami-Dade Community College (M-DCC).

The Story

Once upon a time a natural-born teacher decided to become a librarian because she did not want to teach. However, as career histories go, the librarian became a reference librarian who developed and taught the first library instruction course at the North Campus Library of Miami-Dade Community College. The experience acquired during those early years as a reference/instruction librarian indicated that the academically underprepared student was the most likely to become frustrated with library assignments. With the vigor that youth afforded, this librarian did two things: (1) decided to become a library administrator, and (2) wrote a mini-grant for the use of staff and program development funds to integrate the library with the instruction of all students, but more specifically with the instructional support services academically deficient students needed to succeed in college. The report that describes this mini-grant project follows, and it is reproduced in its entirety as documentation of how a librarian conceived the challenge of swimming against the educational opinion tide that urges that libraries have no mission in developmental education.
A Case Study

The Project

Project Topic: Reaching the Developmental Student Through Print Resources: New Library Services for Classroom Faculty

Project Director: Celia C. Suarez

Background:

The North Campus identified retention of students and developmental education as goal priorities for the academic year 1977-78. In response to these two Campus priorities, the Reference Librarians identified "library research assignments" as an appropriate instruction tool for the Library to reach developmental students and address the retention issue at the same time.

The experience of the M-DCC-North Campus Reference Librarians indicates that the academically underprepared student is the most likely to become frustrated with Library assignments. Below-average scores in reading logically indicate that these students have previously seldom used the Library for academic and/or personal growth reasons. Therefore, to this student, the Library resources, the methodology of research and the classification of knowledge for purposes of efficient information retrieval are all unfamiliar. It is easy to fail and become frustrated in unfamiliar, and, traditionally, the most learned of environments, the Library. Failure breeds frustration, whereas success in completing Library assignments generates feelings of accomplishment that increase motivation for further learning. The student who uses the Library successfully is also a morale booster for the faculty because he/she can see tangible evidence of new cognitive or affective levels the student has reached.

A number of strategies are presently employed by the Library Program Department to alleviate this problem and reach the students: orientation tours are arranged by faculty request, class presentations on Library subject collections are offered and reference Librarians do provide tutorial services when time allows. These strategies are not as efficient nor effective as one that addresses the issue at the point of origin: The Library assignment a faculty member will prepare for use by an entire class. The Librarians and faculty support staff can assist the faculty and provide the services that will result in Library assignments that take into account variable Library resources and methodologies available to meet the different developmental stages of students in one class. Patterns of life-long learning habits will develop in students, and, perhaps with time, recruitment efforts and retention concerns will become less pressing to North Campus as returning alumni continue their quest for personal and professional growth in our midst—taking courses or doing independent research in the Library.

Project Proposal:

To reach an estimated 2,000 academically underprepared, gifted and/or average students, the Library will conduct Library Instruction sessions for faculty members in selected Arts & Sciences departments.
and those teaching Developmental Studies courses. The aim of this instruction is to assist faculty in the design of Library assignments that students can do by using variable methodologies of research and resources that are matched to the different reading, comprehension skills of the target population.

**Project Description:**

Six Librarians worked together to design three consecutive workshops covering the following:

1. Basic Instruction in Services and Resources Available at North Campus Library.
2. Practical Application: Exercises, Annotated Bibliographies of selected reference books and recommended titles for use with Developmental Studies.
3. The Mechanics of Library Assignment:
   a. The motivational role of faculty in stimulating students to use the Library.
   b. Need for information exchange with students about the organization of knowledge in the Library.
   c. Introduce the availability of variable resources and multiple subjects, *e.g.*, *Do Not* assign a whole class to do research on one obscure American Indian tribe.
   e. Availability of easy reading materials in fiction, biography, paperback collection, McNaughton rental collection, hobbies, sports, magazine articles.
   f. Design of Library assignments by each participant for use in selected English, Art, Social Science, Reading and Writing classes. Evaluation questionnaires will be used with faculty and students to ascertain impact of Library Instruction.

The basic thrust of Phase I of this project was to reach students through the unfolding of an instructional partnership/liaison between Librarian and classroom faculty. During the workshops a teacher/learner environment resulted in which all 20 participants reversed roles periodically to exchange views and information in a professional, dynamic manner. The final product of Phase I has been 14 or more assignments jointly designed that will be used with selected fall courses.

Phase II of the project calls for pre-testing the students on Library skills and knowledge, an on-site, course-oriented library instruction session about specific tools and books that the student will use in doing the assignment, and a post-test to evaluate the effectiveness of the assignment and the strategy used to design it.

**Project Evaluation:**

Faculty participants were asked to fill out an Evaluation Form concerning Phase I. Responses indicated that the workshops were
excellent and/or very good. Of the three sessions offered, the last workshop was rated as the one having the highest practical value. During this session, faculty and Librarians worked together to plan and actually design a library assignment.

Phase II of the project, upon completion in fall, 1978, will provide data on the students' reaction to the specific assignments and to the approach used by faculty and Librarians to do course oriented Library instruction.

Project Status:

The project will be completed by the end of fall, 1978. The assignments are being finalized for use in the fall classes of the participants. Marcia Myers will work with John Scerba on the evaluation instrument that will be administered to students in the fall.

Overall, the project was intended to create a ripple effect in the Library and with other faculty members. Students with basic skills deficiencies can find the Library a useful resource to improve their reading, writing, and studying skills if Librarians and classroom faculty work together to achieve full utilization of resources.

There are some characteristics of this project that need highlighting before the story gives way to the institutional, community and student profile of the setting where the action unfolds. These characteristics are elements, that, in the concluding section, will be relevant to the framing of a more simple, but wiser, and, probably, more effective approach to the educational structures of the community college as it concerns developmental education.

The project was successful. It was librarian-conceived, -designed, -planned, and -implemented. Classroom faculty did establish a liaison with the library. Additional financial resources were made available for the library to get involved with developmental education. The focus of library instruction was shifted from teaching students to teaching faculty. And, the final characteristic, the library and its collection became a primary, active tool for instruction in relation to diverse disciplines. No "wooden knives" were used in this project.

Institutional Profile for Miami-Dade Community College

In the 1970s, M-DCC was established in the national educational scene as the largest and most innovative community college. Florida had funded its community colleges well during the 1960s according to a legislative plan that divided college education into lower-and upper-division work. Miami-Dade Community College experienced years of tremendous and continuous growth. Though initially conceived as a
community college that would serve 5,000 to 10,000 students, Miami-Dade's enrollment reached and has maintained the 50,000 or over figure, distributed throughout four campuses and numerous outreach centers.

During the 1970s, faculty salaries were not only competitive, but higher than in the public elementary high school, and state university system. The Library at North Campus—the first, and until the 1980s, the largest of the four campuses—was excellent: well funded, and adequately staffed. Then, between 1975 and the dawn of the 1980s, issues began to emerge in the educational scene. Accountability in Education, Basic Skills, Remediation, Enrollment Decline, Collective Bargaining, Minority Representation in Faculty and Administrative Ranks, End of the Baby Boom, and The Decade of Shrinking Dollars and Leadership Changes with consequent Curriculum Revision. These issues were in the 1970s like titles that appear in the "Forthcoming Books" section of Publishers Weekly. They were there, but no one had read them.

In the 1980s at M-DCC we not only read the books, we wrote them on all of the above topics. The activity in the late seventies and early eighties was frenzied. In less than five years, 1978-82, M-DCC underwent a major curriculum revision of the general educational program; reinstituted college-wide testing programs to assess basic skills of entering freshmen; experienced campus- and college-wide leadership and organizational structure changes from the level of the president downward, and a year later, over 50 percent of the governing board of trustees was new; standards of academic progress were instituted to establish internal quality control on students; enrollment began to decline; and financial resources began to shrink. External factors to M-DCC also began to emerge: legislative activity started to allow upper-division universities to enroll freshmen and sophomores, and an eventual legislative mandate for compulsory exit-level testing for community college degree-seeking students was being considered.

National news deplored the overall quality of education in the nation. Community colleges—because of their open-door admissions policies—did not escape the valid criticisms that college graduates could not read, write or compute. Miami-Dade, however, could point with pride to the achievement of the many first-generation, mostly Black and Hispanic students who—otherwise denied access to higher education—were completing transfer programs and succeeding in upper-division and professional-degree programs. Today in Miami, the mayor of Hialeah, a Cuban-born leader of the largest industrial city in the State of Florida, as well as many other minority civic, political,
media, and business leaders of Dade County are graduates or were students of the North Campus of Miami-Dade Community College.

Despite these achievements, M-DCC's institutional research projects were unveiling disturbing facts. When in 1981-82, college policy mandated basic skills assessment for all entering freshmen, data began to document what faculty members had been complaining about: over 50 percent, and on some campuses as high as 70 percent, of students were failing one or all of the three CGP (Comparative Guidance and Placement) tests assessing reading, writing or computational skills.

Remediation: A Chronological Approach with Emphasis on Student Characteristics and the Library's Participation

To complete the description of the milieu where developmental education programs emerged, a profile of the North Campus student is in order. During the 1960s, minority students (only considering figures for Blacks and Hispanics) were indeed a minority at the North Campus. The Office of Institutional Research had no figures available in report form; however, an educated guess would be 80 percent white and 20 percent minority.

The trend change of student characteristics started in the seventies and the following chart illustrates the dramatic reversal in the ethnic composition of M-DCC's enrollment at the North Campus:

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<tr>
<th>TABLE 1</th>
<th>ETHNIC COMPOSITION OF M-DCC'S NORTH CAMPUS ENROLLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
</tr>
<tr>
<td>Fall 1979</td>
<td>38.3%</td>
</tr>
<tr>
<td>Fall 1980</td>
<td>33.5%</td>
</tr>
<tr>
<td>Fall 1983</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

The student body at the North Campus in 1985 is predominantly Hispanic, over 50 percent female, shows increasing numbers of learning and physically disabled students, and has students with an average age of twenty-five with continuously decreasing numbers of full-time entrants who are recent high school graduates. An additional and very significant characteristic is that approximately 50 percent or more of
those assessed for basic academic skills proficiency perform below the norm on one or all of the competencies tested, which are reading, writing and computing.

Thus, the North Campus has always offered a variety of services and implemented diverse administrative structures to deal with students who are deficient in basic skills. Since the late seventies to the present, however, structural arrangements have increased in importance due to the numbers of basic-skills-deficient students and also due to the legislative mandate for a passing grade in the CLAST (College-Level Academic Skills Test) effective in the State of Florida beginning in the academic year of 1984-85.

As scandalous as it may sound, the library's support of developmental studies services or programs before 1975 was mainly in the area of reference assistance to students researching “sex” as a topic of inquiry. Obviously, the librarians and the faculty teaching those, then called, “compensatory or remedial” courses, were not on the best of terms. In 1975, an organizational structure change facilitated the pursuit of linkages between the library and developmental studies along loftier topics.

A dean of student and learning support services was appointed. His division housed all traditional student services, except registration and admissions, plus the library, audiovisual and all instructional departments that offered basic skills/remedial courses. Services to disabled students, and recruitment and testing were also included in this division. The potential for dissent in such a multifaceted division was tremendous, but it never brewed, due to the warm and competent team-building leadership style of Nicholas Gennett. The brew he and his team of chairs and directors concocted continues to benefit the “developmental” student, especially if one believes that positive library experiences are necessary and very effective factors in remediating academic deficiencies.

These were the years during which this librarian exercised statewide leadership as Vice-President and President of Florida Developmental Education Association of Community Colleges. This association, founded in 1976, has contributed tremendously to the improvement and integration of the services that help “developmental” students. Furthermore, it has lobbied effectively within institutions and at the state level for the continuation of services to this type of student in the community college population, even though such funding has often been under attack by the state funding arm of education, the Florida legislature.
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All this history may seem irrelevant. However, it is because of these events that in 1983-84, the library succeeded in playing an even more dynamic role in the instructional services offered to students who were in developmental courses in reading and writing. Two brief handouts about the recently created “Information Skills Lab” are reproduced here to fully describe the rationale, the practices, and the organizational structure of this new service for students:

(Handout No. 1) The Information Skills Lab

Rationale
In August 1983, Dr. Robert McCabe, President of Miami-Dade Community College, published a paper entitled “Information Skills for the Information Age: Establishing a Fundamental Emphasis for The Education Program of Miami-Dade Community College.”

The following excerpts capture the spirit, tone and direction of the document:

—The college will redesign the educational program to place fundamental emphasis on the development of information skills.
—Virtually all jobs now require the ability to utilize and communicate information.
—It is ever more clear that information skills—finding information, reading it, analyzing it, interpreting it, applying it, and communicating it—are the foundation for living effectively and being employed productively in the information age.
—Individuals must be skilled learners.
—The ability to analyze, synthesize and evaluate data requires the ability to read critically, to conceptualize, to form basic conclusions, and to communicate such understanding in writing.
—The objective of assisting each student in development of information skills and competence as an independent learner is to be interwoven into every course offered by the college.
—Writing...demands analysis and coherent synthesis; it requires critical thinking, and forms the basis for developing and refining the information skills which are the essence of academic and occupational pursuits.

Students with deficiencies in the basic skills of reading, writing and arithmetic, are also very likely to have deficiencies in their information processing skills. Thus, providing instruction in basic skills, and even improving these skills, is insufficient in developing competent college students and competent citizens in the information age. A comprehensive educational approach is in order.

Miami-Dade Community College has taken leadership in addressing this educational problem.

Toward this end, the Basic Communication Department in the Division of Communication, North Campus, has organized the Information Skills Lab. The Lab provides a systematic approach to improving students’ information skills.
Every student enrolled in a basic reading or writing course is required to take the Information Skills Lab. The Lab provides students with a wealth of activities and experiences designed to promote the development of information skills. These activities challenge students to read carefully, think critically, develop alternatives, write accurately and neatly, fulfill responsibilities and develop appropriate habits for successful life in college and the world of work.

(Handout No. 2) Information Skills Laboratory

The Information Skills Laboratory is in operation to provide additional hours and learning activities for students in reading and writing courses. The Information Skills Lab is located on the 2nd floor of the library and the hours open match the schedules of students in REA 0001, REA 0002, ENC 0006, and ENC 0007.

Entering students complete a 12-page reading and writing inventory. When completed, each student is interviewed by a professional who assigns an individualized program of learning activities. The customized program varies depending on the course or courses being taken, whether English is a second language, and whether the student has taken the course before. In addition, the sequence of learning units can be changed as well as the time required for completion.

Satisfactory completion of the reading and writing courses associated with the Information Skills Lab depends on testing—for reading, attainment of at least a 10th grade reading level, for writing, attainment of criterion competencies. For these reasons, the Information Skills Lab assigns only “in-house” grades to students (S-Satisfactory, P-Progress, and U- Unsatisfactory). These tentative grades inform students how well they are progressing in the opinion of the faculty and paraprofessionals. These “grades” are reported to the reading and writing instructors (along with attendance and other information).

The Information Skills Laboratory offers the student a diverse program with units in the following areas:

1. *Use of the library*—from reading a magazine to preparing a short research paper.
2. *College survival skills*—from reading an AGIS report to planning a course of study.
3. *Thinking skills*—develop the ability to pay attention, remember, reason, develop solutions and implement; a preparation for IQ, Achievement, Placement, and CLAST tests.
4. *Personal skills*—these include problem solving methods, motivation, concern for accuracy, as well as developing the assertive behaviors that characterize successful graduates.

The program is coordinated by David Jenrette, who has prepared most of the written materials and assignments. Information Skills Lab modules prepared so far include:

1. Overview and Information Survey
2. Guide to the Library
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3. Shortcut Reading Methods
4. The SQ3R Reading Method
5. Vocabulary unit (Animals and Inventions)
6. Fiction reading assignment
7. Guide to Writing the 500 word essay
8. The PQMR Reading Method
9. Guide to reading magazines
10. ABC Unit (Insights into the Alphabet)
11. Vocabulary (The 100 English words most often misspelled)
12. Simile and Metaphor (Including prefixes)
13. Idioms (word combinations not usually found in dictionaries)
14. Computer Programming
15. A Weekly Journal
16. Literal Algebra

Copies of these modules may be obtained from David Jenrette, Basic Communication Department, Room 6103, North Campus, Miami-Dade Community College.

Some characteristics of this Information Skills Laboratory need highlighting before a more dynamic role is proposed for the library in the conclusions. These characteristics are: (1) for the first time a component of the instructional program of developmental reading/writing courses became housed in the library; (2) assignments for reading improvement required use of a variety of library resources, instead of a workbook, textbook or technological approach; (3) librarians worked closely with the faculty member in charge of the lab in the design of self-instruction packets; and (4) ongoing library instruction sessions for these students are given priority by library administration.

Conclusions: A Librarian's Dream

The ideal approach to developmental education at the North Campus remains unrealized if one recalls the author's bias as expressed in the "wooden knives" illustration. The conclusion of the story is that due to the informal cooperation, the library at the North Campus of M-DCC can claim to be actively involved with the instruction of developmental students. It must be noted, however, that the marriage started when linkages were formal, and the program was placed under a dean of student and learning support services. Since then, the overall organizational structure of the campus has changed and so has the placement of the function of developmental education. However, the bonding that was established between the faculties and the departments of library and developmental studies endured. Thus, the author can describe the following scenario for developmental education at the North Campus of M-DCC.

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Instead of reading and writing courses offered by a developmental studies department, the entire library would become a laboratory for self-paced instructional activities organized around the general education curriculum. The discipline—be it social sciences, humanities, science or technical/vocational studies—would govern and organize the instructional support services for academic-skills-deficient students. Remediation activities would be managed and administered by the most generalist of all the faculty on a campus, the librarian. The discipline faculty would work with the librarians according to a formal organizational structure that would grant the library the leadership role in designing, implementing and evaluating the activity of remediation. All activities would be content-driven, with the vocabulary and concepts of a given discipline acting as the foundation for remediation framed by the library's collection. Heavy emphasis would be placed on guided and supervised reading activities with subsequent writing assignments. Educational media and computers would be integrated with print materials to ensure comprehension of concepts and to drill when repetitive tasks are necessary.

Is this scenario valid for community college libraries? Do librarians find it acceptable? Would the mostly male administrative echelon of presidents, vice-presidents and academic deans of community colleges give the power and the financial resources to the library, traditionally considered an academic support service and mostly female-directed and staffed?

The experience of this author is that the sexist bias is a covert reality that has impacts on libraries in settings beyond the one described. In addition, funding for libraries in the community college system of Florida has been lean as compared with the availability of support for the state university system. Furthermore, few college librarians have demonstrated the interest and the preparation to deal with developmental education. While librarians in public libraries can claim a big piece of the action as it concerns the adult literacy issue, the college librarian's role remains boxed in by limited resources, high demand for traditional reference, research and bibliographic instruction services. However, the author of this article remains a follower of Louis Shores's "Library-College" concept and a firm believer in the instructional role of the library with all students, more so with those who lack basic academic skills.
A Case Study

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1. Rippey, Donald T., and Truett, Carol. "The Developmental Student and the Community College Library." Community College Review 11(Winter 1984):41-47. (This article identifies the librarian's point of view as found in Breivik and Shaughnessy's work plus the work of Roueche and K. Patricia Cross as philosophers of developmental education. Its documentation and interpretation of data is very thorough and it is a "must-read" article for any librarian or community college administrator interested in libraries, developmental education and their potential value to effectively deal with academic-skills-deficient college students.)


4. Dr. Gennett left M-DCC in 1981 and is now in the community college system of Amarillo, Texas.

5. Both these handouts were made available by Charles Gonzalez, Chair of the Basic Communication Department and for many years a college-wide leader of programs on behalf of developmental students. Mr. Gonzalez was a member of Dr. Gennett's team.


Additional References


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A career resources center collects, organizes and provides access to as much information on general career guidance as possible and as much information as possible on specific careers. This would embrace data on the generic, overall career of a sales person to the specifics of sales work involved in selling computers, caviar or time-share vacation spots. The career resources center and its staff provide as much information and guidance as possible to the job seeker or to the student attempting to choose career paths. In addition to basic information on specific careers, the comprehensive career center also includes guidance counselors; opportunities to take personality and interest inventories, as well as tests of skills, ability and creativity; group and individual work areas; and more. In fact, the career resources center should provide a logical step-by-step developmental procedure to help one identify interests, to determine if these interests are supported by appropriate abilities and commitment, to provide general direction for one to investigate career possibilities. And the personnel of the career materials center provide guidance in using the resources—including people—for the individual to define career goals and career direction. This must be a highly individualized procedure with the individual moving at his or her own pace, aware that guidance and counseling support is available.

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Marilyn Lary

It cannot be overemphasized that career education centers ought not be limited to technical/technological information. College catalogs, professional careers information, and even post-graduate information should be available in a career resources center. In our constantly changing work environments, the route to a career, at any level, should not be predetermined by the constraints of information which is or is not available or which has been selected. Many people who must now retool began with a fairly traditional college background which they must now enhance with newly recognized skills. Many of those with technical backgrounds need to acquire a liberal arts background or a scientific specialization in order to improve or maintain a successful career. Information on any career holds a legitimate place in a career materials center. In realistic terms—because of space and monetary considerations—the career information available in a particular center may be limited to the career preparation available in that community college. But traditional college educational materials should always be provided.

Community colleges have always had a strong commitment to advising and counseling. In fact, that was one of their original six functions. With the rising interest in career education, the constantly fluctuating demands of state-of-the-art career preparation, and the greater number of students attending community college classes—many of them part-time—the need for expanded guidance and counseling services became obvious. Providing students with direction in appropriate course selection and in identifying areas of interest began to be less significant than developing within students a basic career orientation. This might be defined as an awareness of potential careers available within a generally identified interest area. For example, one who has strong interests in working with children and who has appropriate abilities in nurturing, patience, kindliness, creativity, and enthusiasm may be exposed to several career choices: teacher's aide, child care worker, playground supervisor, parks and recreation employee, camp counselor, or guide in an educational support section of a theme park like Busch Gardens or Disney World. In addition, the advantages and disadvantages of particular work environments need to be identified—i.e., benefits, employer expectations, job demands of large v. small organizations. Students also should be made aware of continuing education requirements or opportunities, licenses needed, various routes for entering careers, and growth opportunities.

Perhaps the increasing need for the development of career resources centers has been most influenced by the changing characteristics of
community college students. Rather than opting primarily for college transfer programs as in the past, community college students have steadily become more interested in career education programs and—the euphemistic term for “terminal education”—occupational and/or skills training. Robert Baron, Jack Friedlander, and J. McCurdy have each shown that career programs have been more popular, in terms of student enrollment, than transfer programs since the 1970s. There is reason to believe that this change in direction of career goals will continue.

Ever since the boom days of returning World War II GIs in the 1940s, college transfer courses in community colleges have been those which enrolled the greatest number of students. The growing need for post-secondary education, the government’s interest in reeducating its servicemen through the GI Bill, and the U.S. supremacy as a world power, all combined to fill college classrooms throughout the country. And even though there was a growing need for technical expertise, the college degree became an end in itself. The considerable earning power which a college graduate could expect was repeatedly stressed to high school students throughout the 1950s and 1960s. In that period, there was no shortcut to success; the four-year college degree was the necessary foundation for a “successful” life.

In fact, one might consider that these events provided the cornerstone for the community college’s coming of age. After all, the original junior/community college concept was built on the thesis that the typical freshman and sophomore years of undergraduate study were extensions of high school study and were attempts to produce knowledgeable, well-rounded students. This feat was to be accomplished before the serious business of entering a major field and becoming a scientist, a teacher, a musician—even a mother. Many students across this country were scurrying to obtain college degrees to guarantee their futures, with no clear idea of the demands or rewards of getting an education. Nonetheless, the need to acquire college credits spurred the growth of junior and community colleges, establishing many “feeder” schools for private and public universities alike.

However, as the costs of education to the individual increased, as the pool of eighteen year olds decreased, as a college education no longer guaranteed upward mobility, and as more and more specialized careers materialized, college-parallel education did not appear the only route available on the road to success. As more and more undergraduate institutions competed for four-year-degree-oriented students, the demand for college-parallel transfer programs in community colleges began to decrease.
At about the same time, the interest in less traditional course offerings increased. In the 1970s and now in the 1980s, many students in post-secondary study do not aspire to college degrees. This may be explained in several ways. The students may already have a degree that is not helping them in the job market. They may not like school and/or they do not have the time or money to commit to a four-year undertaking. They want or need to work as soon as possible and they often do not have the academic skills to enter traditional college classes. In addition, the community college is uniquely able (or willing) to respond quickly to new and innovative course offerings, to respond to the needs of its students. As a result of these factors and others, interest in technical/technological or career education has mushroomed.

The increasing interest in nontraditional experiences and the increasing heterogeneous characteristics of community college students make advising, counseling and career direction an awesome and overwhelming challenge. Even with the best intentions and superlative counselor/advisers, it is not possible for the typical counseling staff to respond adequately to these expanding demands. At such a point, a career resources center becomes a logical development.

Career resources centers, because of their potential use and because of the materials maintained, are natural candidates for inclusion within the community college's library or learning resources center. If the career resources center cannot be housed within the LRC, it should be as physically proximate as possible so that demands made for access to career materials can be most readily served. Because the LRC is likely the campus facility which is open the greatest amount of time and because professional direction is most often available in the LRC, access to and usage of materials will be fostered. No one would dispute that a clerk or student assistant in a career resources collection would be able to provide directions in the locations of materials, and, possibly, in the relationships among various careers. But the LRC librarian in addition would be able to provide guidance in identification of educational or training experiences, in noting agencies which offer such opportunities, in indicating organizations to which one would write for additional information, and in suggesting other career choices which share similar preparations. The librarian, in conjunction with the counseling staff, is in the enviable position of being aware of various informational resources: directories, manuals, biographies—with which even some guidance personnel may be unfamiliar.

What a boon for students: to have appropriate information available to them at almost any convenient time with a knowledgeable staff.
Career Resources Centers

to provide direction and guidance! Naturally, no one would suppose that librarians should or could usurp a counselor's authority or position. But working together, these professionals are able to open many previously unavailable or unknown alternatives to students seeking career information.

The advantages of such an arrangement for the LRC are equally desirable. Students who enter the library/LRC seeking career information will absorb some understanding of a basic library function—supplying information. The LRC will be seen as providing information beyond curriculum support or research materials for the "brains" in college parallel courses. (Such library stereotypes may seem ridiculous to practitioners, but actually do reflect many adults' view of libraries and their resources.) If the career resources materials are adequately selected in a variety of formats, the library's provision of information in nonprint materials also will undoubtedly win a convert or two. It cannot be overemphasized that, despite zealous efforts by librarians and media people, the average person still sees the library and its resources as serving the scholar.

In yet another vein, library users of career resources materials will be exposed to the relatively pleasant surroundings of most LRCs. At least since the 1970s, librarians have labored to make them more attractive, to decrease the number of "quiet" areas, to emphasize lounge and conversational spaces, to bring the outside in. These efforts have included hanging plants; large, open windows; natural lighting; lounge areas; comfortable furnishings; and attractive, cheery surroundings. This type of environment may be a surprise for community college students who rarely, if ever, use other libraries and who may not have entered any library in ten to fifteen years. Research reveals that the same characteristics of an attractive library seem to be beneficial in a career/counseling environment. A career center which is busy and bright, and which offers a great deal of information, is most likely to encourage vocational exploration as well as to encourage the inquirer's interest in returning to the center.4

In the interests of overall community college and LRC budgets, the cooperation between the counseling area and the LRC makes significant sense. With such a sharing of materials, no matter the unit which finally claims ownership, the need for duplicating materials is substantially reduced. A counselor's office on the other side of campus makes it necessary to acquire multiple copies of some items. With both areas under one roof, the duplicates are often not necessary. With greater and greater demands being made at a time of shrinking budgets, conservative fiscal responsibilities must probably become a way of life. Such
savings in physical resources should free a greater amount of money for acquisition of additional materials. With the increasing diversity of course offerings in most community colleges and the continuously changing career picture, career information to serve the various needs of students must reflect a wider breadth of information.

Although the career materials center is often housed in the LRC and sometimes is under the direction of the LRC staff, if the career resources center is successful, it probably will become a discrete unit of its own—apart from the LRC physically and administratively. In this case, success does breed severance. The entire operation—because it is responding so well to demand—outgrows the need for place and nurturance within the LRC. The pattern often follows the one seen in provision of developmental and remedial programs. The greater the demand and the greater the success in responding to that demand, the more likely it is that remedial or developmental materials and resources will grow into separate units of their own.

One of the grave concerns of community college education today is retention of students. Because government support is often predicated on the numbers of FTE (full-time equivalent) students, the efforts of community colleges are hampered or enhanced by the percentage of students that can be kept in school. The reality is that many community college students do not expect to remain in school or to complete a degree or certificate. They may see no hope of continuing their education because of economic constraints or they may not have the academic skills to be successful. One method which may increase student retention is a more effective guidance system, with the career resources center a significant part of this effort.\(^5\) For Black students, career guidance and counseling are crucial.\(^6\) Displaced homemakers, those retooling for new careers and those interested in nontraditional careers all need guidance toward realistic goals.

To be truly functional and successful, the career materials center must have the support of the entire community college community.\(^7\) It is not sufficient to have a dedicated guidance/counseling staff and enthusiastic support of the center among library personnel. The entire community—faculty, administrators, students, and the public—must be aware of the center, its purposes and its needs. The best publicity for initiating use and for sustaining the value of a career resources center is everyone's being aware of its goals. Administration must see its short- and long-term effects to be willing to provide financial, physical and staff support. Faculty must appreciate the connection between classroom activities, the evidence of cooperative, communicative and training skills with appropriate work habits and expertise. And students
must see the positive direction toward lifetime careers in examination of individual interests, training and ability. Community members must realize the methods the community college uses to produce competent, aware, motivated members of the community. The public must be convinced of the value of such career direction so that some of its members will be willing to serve as resource people when needed.

The commitment of the total organization for the career resources center is the first step in the planning process. Several guides are available which provide both theoretical bases for the initiation of a career resources center and step-by-step procedures for the establishment of such a service. Kidd and Embry have described in detail the procedures needed to develop a career planning [career resources] center; their directions delineate the processes to follow in three situations. Those are: (1) a community college with no career resources facility at all; (2) a community college which has set aside a special location and an employee (full- or part-time responsibilities) assigned to the facility; and (3) a community college which has several established career activities: personal counseling and assessment services and a minimum of one professional devoted to the center full time.

In planning for a career resources center, one of the first responsibilities is to access needs by identifying all resources for career education which are available. Surveys and questionnaires, as well as direct observation, can be used to gather this information. If one needs help there are commercial needs assessment instruments, such as the "Assessment of Career Development" which is available from Houghton Mifflin. If one has an interest in career resources centers in other community colleges, several states have investigated the extent of career resources centers in their community colleges and the services offered.

The usefulness of the career resources center depends on the appropriate materials being available, easy accessibility to them, and competent staff to assist the students with the materials. Both members of the guidance/counseling staff and of the library staff will be involved in identifying materials to be acquired. In addition to career-oriented information, career resources also would include materials on clothing suggestions, business etiquette, résumé preparation, and interview techniques. There is a plethora of sources available for career materials.

Career information is produced by a wide variety of private and commercial enterprises, covering many formats. The challenge to acquire the most effective materials, especially in newly developing careers, is the watchword of collection development. The traditional care taken in selecting materials must be assiduously applied in identifying appropriate materials, especially those which carefully contain all
aspects of career awareness. These would include, for example, such characteristics as work environment, alternative ways to enter the specific career field, and advantages and disadvantages of nontraditional careers for either sex. Although it is always most convenient to acquire information which can be housed in the LRC or career resources center, one of the best sources for newly emerging career information is an individual actively involved in that particular emerging career. Because of changing demands, partially influenced by developing technology, the individual in the forefront of the field can best describe the demands, constraints and rewards of his or her career. The physical availability to interact with students seeking information and guidance will be limited by the demands of the individual’s time; by the number of students who would benefit from such interaction; and by the changes within the career itself, the work environment and the changing preparations necessary to enter the field.

Video and audiocassette tape can, of course, be used to capture the worker’s perception and analyses of opportunities, training and rewards. But care must be taken to provide constant updating of information in many areas. The same may be applied to women who enter traditional male work areas and to men who do the same in female-dominated positions. Despite the advent of opportunities in word processing, computer operation and health care, there are many individuals who—because of personal preference or location—wish to become secretaries, nurse’s aides, child care workers, etc. Contrary to the past, however, these employees may be male.13

There are many publishers and producers which have career information available. These include: Vocational Biographies, Incorporated in Saul Centre, Minnesota; Chronicle Guidance Publications, Incorporated of Moravia, New York; Careers, Incorporated of Largo, Florida; and Science Research Associates of Palo Alto, California. Publishers producing career information include Richards Rosen Press, Vocational Guidance Manuals and Julian Messner.14

Of course, of immediate concern to library professionals involved in the establishment and growth of a career resources center is the managerial or organizational framework. C.H. Green’s article15 on managing career information; Vitale’s data;16 and cataloging directions by Lyle17 and Clack18 should provide some direction. Various considerations are important to evaluating career materials for purchase. The National Vocational Guidance Association has provided guidelines for preparing and/or evaluating career information.19

In addition to career information being available in standard print and media sources, a burgeoning amount of data is available in elec-
Increasingly sophisticated electronic capabilities have influenced the methods available for obtaining career information. Since the student still must finally choose the most attractive, feasible career, many computer systems have been developed for the individual searcher. Detailed information on careers themselves, the means available for acquiring training and/or experience, the agencies which offer specific opportunities, expectations of salary and career advancement, and personal characteristics which are desirable in a given career is available. As the individual interacts with the system, he or she has the privacy and time to examine any career interest. The obvious attraction of these systems is that they give structure to the mass of career information available. In fact, one's fear might be that, given so much information and in such detail, the user may become overwhelmed and, possibly, incapacitated by the choices. But how much better than to feel that "there's nothing I can do!"

The basic purpose in searching a computer system for educational and occupational information is "to increase awareness of options and opportunities." And more and more individuals and agencies are interested in providing just such information. The Federal Education Amendments of 1976 created the NOICC (National Occupational Information Coordinating Committee). Its latest funded programs are called career information delivery systems, emphasizing the importance of disseminating information. To decrease decentralization of information and policies, the SOICC (State Occupational Information Coordinating Committee) was created. The SOICC developed two systems for career guidance information: OIS, Occupational Information System (of occupational statistics); and CIDS, Career Information Delivery System, to "provide relevant, as well as accurate, occupational data to a state's users."

There are basically two types of career information systems which allow user interaction. One online information system provides for storage and retrieval of information. Examples of such systems are CHOICES, CIS, COIN, CVIS, ECES, GIS, and SCAD. Each of these provides structured interviews between the user and the computer. Such searches or interviews help users anticipate the effects of their choices. The other type of online guidance system, while providing storage and retrieval, also supplies a greater amount of information, including guidance content. This second system will help the user determine his or her status of career development, will provide for computer-assisted instruction, and will provide simulation exercises to clarify values and decision-making. It also helps in classifying occupations. Examples of
this system are DISCOVER, EXPLORE and SIGI. A thorough description of these systems is available from Jacobson and Grabowski.22

Because of financial considerations, these systems may not be immediately available to a fledgling career resources center. But a cooperative agreement between libraries or among institutions in a state-supported system may allow access to a commercial system.

Most career resources centers provide information via several methods: (1) a computer system, (2) cross-referenced files, (3) bookshelf or filing cabinet materials, and (4) cross-referenced card files or notebooks. Complementing information filed in different locations is difficult to correlate and contributes to an underused collection. In response to this problem, Georgia Institute of Technology developed a system to help staff maintain inventory and control in their career library. The system is called the CALI (Computer-Assisted Library Index). The system helps students identify and locate career information as well as helping the staff maintain an inventory of career materials.23 In one alphabetical index it provides access to all types of career sources: books, files, information systems, and audiovisual materials.

Many of the developments discussed previously may be well beyond basic career resources centers that are currently being established. Nevertheless, it seems clear from the field and from the great and diverse demands being made of community colleges that career direction and guidance will be a top service priority in the coming years. As more and more people need to retool or update their employment skills, the demands on community colleges will increase, as will the demands on library support services. Since the LRC is likely the facility which will encourage and, at first, support a career resources center, it behooves LRC librarians to become knowledgeable and to prepare for the challenge. After all, the provision of information which is timely, easy to identify and locate, and answers a need is the rationale for any LRC. As has happened so often in the past, the future has merged with the present; and community college LRCs are again at the cutting edge in responding to new demands.

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Career Resources Centers


14. For additional publishers and producers, consult sources noted in career resources bibliographies.


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Beyond Comprehensive Learning Assistance Centers

JACK FULLER

A New Era

TOFFLER, NAISBITT and others write of agrarian and industrial revolutions past and of electronic and computer revolutions present. Conference and convention themes hype the “third wave” and professional journals abound with the latest accounts of “high tech.” Presidents, professors and deans speak of an unmet need and rush to fill the alleged gap with equipment, staff and buildings. Grand processes and designs emerge to implement a still undefined concept while taxpayers and foundations pass judgment on their fortune and fate.

Some associate all computer and/or electronic-related industries with high technology. Others reserve the designation for careers that require a math/science background. Still others would include high school graduates or less who would sit patiently eight hours a day, pore over a microscope and patiently solder platinum wires to silicon chips. The conclusion and definition are obvious. “High tech” is relative to time and place. What is “high tech” to some may be “low tech” to others. And with certainty, what is “high tech” today will be “low tech” tomorrow. For as sure as there is a tomorrow, obsolescence is the nature of the beast.

Manufacturers plan to have upgraded widgets off the assembly line within three years of the introduction of a product or else be prepared to be out-paced by their competitors. Conceivably, some high tech items could be obsolete before they come off the assembly line. By way of

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analogy, one commentator remarked that if the automobile industry had made the same advances as the electronics industry in the past year, a Rolls Royce would cost $2.45 and get 400 miles to the gallon! Even with these advances the cost of state-of-the-art equipment is beyond the reach of most students and colleges. In order to maintain competitive prices, high technology manufacturers are looking to foreign labor markets to lower the costs of production.

With well-intentioned oblivion, educators have ignored these and other caution signals and have accelerated the training of high technology workers. The number of computer science graduates multiplies while experts tell us that computers will be so user friendly by 1990 that they will program themselves. And at current training rates, robotic technicians will be in oversupply by the year 2000.

I suppose we could ignore the obvious and continue on our merry way. We have done so frequently in the past and usually have come up smelling like a rose. The colleges of education survived their overproduction of teachers in the sixties even though they knew the baby-boom had ended. Other uses were found for the language labs that stood idle after the Sputnik alarm subsided. And the boondoggle called CETA (Comprehensive Employment and Training Act) has been entombed and resurrected in yet another life as JTPA (Job Training Partnership Act).

But what if for once we acted rather than responded? What if for once we looked ahead and prepared for tomorrow instead of today? Hardly in keeping with our reputation and our conservative tradition, but certainly a requirement of the times. Even if we could afford to meet the educational needs of high technology industries (which we can't), our developmental time is so entailed and prolonged that the curriculum will be obsolete before it's ready. So why not begin to prepare for the education of tomorrow—somewhere short of science fiction and just this side of high technology? Isolated efforts are probably already underway in the research laboratories of Transylvania and other sinister locales and only need public, political and pedagogical sanction to come out of the closet.

It is time that we become more aggressive about the development, teaching and dissemination of a universal tongue. COBOL, BASIC and RPG are devoid of differences in gender, number, possession, and the like! Why perpetuate this myriad of rules between inhabitants of the same planet, nay universe?

But let us not pause just there. Let this be an intermediary step to communication without words. Just as drone airships can receive communication miles away, so too the transmission of thought should be in
the offspring. And while we are translating communication symbols through ideaonic waves, we should proceed to isolate the physical composition of all knowledge matter into identifiable elements that can be consumed or absorbed as easily as a "Big Mac."

As the smart pills become available at the local supermarket, the physiochemical elements or catalysts of knowledge should be recognizably all about us and, therefore, attractable to that great Knowledge Module(s) in the sky. It would attract, store and disseminate all knowledge matter. It could be the basis and facilitator for the transmission of the anatomical image of our person from one time and place to another. Do not be surprised to open your Sunday newspaper some day and read about a Radio Shack clearance sale on "Time Machines." Beyond this, who knows? We are limited only by our imaginations. Forsaking planetary catastrophe, the state of the art is almost there. Education should not be far behind. Contemporary learning assistance centers have already taken the first step.

**Beyond Learning Assistance Centers**

From television to computer and at all stops in between, the library has been heavily influenced by the tremendous growth and development of video and electronic media. This phenomena of the 1960s and 1970s boasted information storage, delivery and retrieval of the broadest proportions. Periodical indexes went from large printed volumes to microfilm, to microfiche within a relatively short time. During this same period, card catalogs were replaced by "online" computer reference programs. With this new image came a new role. Expanded information capabilities and waning organizational budgets invited a marriage with related services and resources. Linkages with self-paced learning laboratories, developmental studies and audiovisual media coordination appeared logical extensions of this new trend. Using libraries as a home base for computer laboratories and software reduced institutional duplication of costly equipment and materials and modified the image and role of libraries even further.

The title of "library" was no longer adequate. It smacked of books and stacks and artifacts of yore. It recalled a passive user service. Learning Resources Center or its acronym, LRC, more closely described its comprehensive nature, while Comprehensive Learning Assistance Center (CLAC) clearly implied an active effort to meet user needs.

While the offspring was well received, it was not without flaw. Time and again, from school to school, the purpose, function and composition of learning assistance centers were expanded and con-
tracted depending upon the funds, staff and facilities available. The bastard child was in vogue but rarely in tune with its brethren from one institution to another.

As learning assistance centers were accorded more formal recognition, they moved to define more clearly and to expand upon their role in a dynamic and viable organization. The trend appears to be toward quality and excellence, providing as much assistance as possible and as is required to ensure student success. While the requirements necessary to respond to this need vary from one authority to the next, there appears to be an emerging consensus of an ideal learning assistance center and its corresponding function. Broader in scope and nearly all-inclusive in potential services to students, the new college learning assistance center may truly be deserving of the title "comprehensive."

Video- and audio-appointed learning carrels adjacent to computer laboratories now thrive where only books and magazines once dwelled. Microfiche readers and online catalog and reference systems are prominent where the card catalog and periodical table once stood. Tapes, records and films are being replaced by sophisticated instruments of high-speed random access memory (RAM). For the romantic, it appears that the platinum wire and the silicon chip may soon replace the silver screen and printed page. Self-paced instruction at all levels and developmental education in some others are not alien to the scene.

**State of the Art**

Susan Martin aptly summarizes the state of the art when she notes the use of computers, minicomputers, photocopiers, audiovisual equipment, video-cable and satellites in MARC (Machine Readable Cataloging), OCLC (Online Computer Library Center), online information retrieval, and FACS (facsimile transmission). Hardly library vernacular of the past but certainly a harbinger of things to come.

Perhaps even more symbolic of the times and certainly the greatest departure from the past is the conversion from books to computers. Imagine a library without stacks of bound books! What’s this world coming to? Results of such early experiments with this probability are inconclusive, but their arrival appears imminent. Librarians and their assorted kin have already begun to think and write about the possibilities and the impact on their preserve. One in particular, H. Wooster, appears to be one of the more venturesome of the lot. Wooster recounts the demise of the card catalog, transcends current automated information storage and retrieval systems, and speaks to a collective memory of the grandest sort. Connected by sophisticated communication net-
works, Wooster's prophecy may well be the forerunner of the "Knowledge Module," this author's prediction of the ultimate in learning technology. A satellite to beat all satellites, it would collect and store all knowledge (information) as it occurs throughout time. (Author's note: Entering all accumulated information to date may present a temporary backlog.) Access to information retrieval systems would be personally available to all beings throughout the universe. Existing knowledge facilities—e.g., school libraries—would eventually fall to disuse. During the transition, regionalization and specialization of these twentieth-century artifacts is likely, perhaps as information clearinghouses, back-up storage, or as meeting places for interpersonal alternatives to a mechanized society.

Ralph Conant might agree with this prediction on a lesser scale but for different reasons. He sees current educational, economic and sociological patterns placing different demands and roles upon urban and suburban libraries in the next decade. As demographical distribution shifts from city to suburb and as the economic gap between the classes widens, information repositories (libraries) will respond and adjust accordingly. Their collection and distribution will reflect users, their locations, and the times.

William Webb foretells a similar scenario. Lamenting the demise of our educational system, and presumably its standards, he suggests that a corollary decline or change in library collection standards may be the logical consequence. With a similar undertone of apprehension, he acknowledges that the impact of electronic-based alternative resource media is imminent but measurable. Lest this account invite the darkest of hues, it should be considered that it is doubtful that the evolution from book to computer to "Knowledge Module" will hearken a return to the Middle Ages. To be sure, there will be problems but likely of the surmountable kind.

Problems

Problems of the first order will be dealing with better applications of the technologies that already exist. Fear of the unknown accompanies all change, but gradual use and understanding of current technology can make for a smoother transition into the future. Secondary shock waves are sure to be felt and may be of even greater magnitude for comprehensive learning assistance centers of the future. While users eventually grow to accept the initial change, they will need recurring fortitude to deal with the havoc of jumbled or inaccurate data; of
controlling and monitoring access to certain information and other items of the collection; copyrights and patents; and the frailties and failures of the mechanical element. ¹⁰

Cost is obviously another consideration. Many aspiring librarians have had their innovative fire cut to the quick by budgetary limitations. While the promise and potential of automation seemed unending, the dollars were simply not forthcoming. Daily advances in technology are bringing prices within the range of a broader library clientele, but in the final analysis, the budget can spell doom for those who would dream.¹¹

Were cost and change and their secondary impact surmountable (and they are), user satisfaction would always remain an inherent need. Be they libraries, comprehensive learning assistance centers, or some future variation on this theme, their mission has been and always will be to serve the information needs of their public.¹² A disgruntled recipient of garbled information from the "Knowledge Module" is just as disappointed as the researcher of a pilfered collection.

Except for a few select locations and a few distinct locales, libraries and their latter-day kin have always appealed to the entire breadth of the population. From children to adults, the attraction of libraries has stood the test of time. There is no reason to believe that the library role in lifelong learning will diminish. In fact, all signs are that it will only perpetuate this traditional mission. With the tremendous growth of knowledge inherent in this technological age, it would seem only safe to conclude that the need for expanded use of information resource facilities for adults is predictable.¹³

Paul Bergevin listed in detail the basic beliefs which form the basis for his philosophy of adult education. To wit:

1. Adult behavior can be changed to some extent.
2. Adult education should be designed to help people to grow up, mature.
3. Adults must be offered and helped to use the opportunity to act responsibly in the several facets of their adult lives: political vocational, cultural, spiritual, and physical.
4. Adults should assume the obligation to learn to become more productive citizens.
5. Adults have untapped resources of creative potential that should be utilized.
6. Every conscious adult can learn.
7. Every adult can be helped to make better use of his intellectual capacity.
8. Adults need to live together in community in order to grow and mature, and they need to learn how to do this.
Beyond Learning Assistance Centers

9. Every adult should find some way to express himself constructively and creatively.
10. Traditional teaching procedures and learning facilities are often inadequate.
11. An understanding of freedom, discipline and responsibility promotes the discovery and productive use of our talents.
12. Such vital concepts as freedom, discipline and responsibility can be comprehended by experiencing them through a variety of inspired learning experiences in a host of subjects.
13. What is called a free or democratic society must strongly emphasize lifelong learning for all its citizens if they propose to remain free and to use their freedoms effectively.
14. Each adult participating in a learning experience should have the opportunity to help diagnose, plan, conduct, and evaluate that experience along with his fellow learners and administrators.
15. The civilizing process is evolutionary and will advance in proportion to the number and intellectual quality of the adults who play an active role in that process.
16. Many adults associate education only with school. Adult learning that can cause behavioral change can take place at home, in church, in a factory, on a farm, in any place.
17. The means are as important as the ends.
18. The nature of man is neither "good" nor "bad," but he is essentially an adaptable, educable person in a state of becoming, as well as being, and capable of a degree of excellence he rarely attains. There is room for individual action and will in his struggle for achievement.
19. Behavior is conditioned by feelings and emotions as well as by reason and rational judgment.
20. Human beings seek fulfillment or happiness.
21. Adult education can help condition persons to live in a society and at the same time sensitize them to ways in which that society can be improved.

An analysis of each listed item would reveal a potential or existing relationship between the many tasks of adult education and the role of comprehensive learning assistance centers. Item no. 7, for example, holds that: "Every adult can be helped to make better use of his intellectual capacity." The capacity of a CLAC to assist in this regard is obvious. Similarly, item no. 10's position that: "Traditional teaching procedures and learning facilities are often inadequate," is almost an open invitation for CLACs to step right in and fill the void with their latest in learning gear. And certainly item no. 16's thesis that adult
learning can occur anywhere reinforces what we have known for a long time. Namely that libraries, learning resources centers, CLACs, or what have you are a place for adults (in addition to others) to learn.

Richard Peterson shares this view and acknowledges the changing role of libraries at the same time:

We know that the image and role of public libraries in learning is changing markedly. Formerly seen as sources of books for the bookish, many libraries, especially metropolitan ones, are actively involved in a wide range of adult learning services—information and referral (I&R) concerning all locally available human services, GED preparation, television and video tape learning, and assistance with all sorts of independent or self-directed learning projects. The libraries are an obvious natural resource for lifelong learning. Peterson is a supporter of libraries, and he made several references to the importance of libraries' roles in adult education. Harrington and Peterson see a lot of this adult activity occurring at the university level.

But where and wherever this interaction occurs, be it university or library, it only serves to further emphasize that times are changing and so are libraries. Many, if not most, have already been transformed into some form of a comprehensive learning assistance center. They are electronically poised for a step into the future. While their basic mission and concerns remain, possibilities for expanded service are unlimited. Their current direction suggests that they are the next logical and appropriate step enroute unto the ultimate "Knowledge Module." With increasing frequency, they are assuming the many responsibilities and tasks of our evolving information society. The charge appears imminent, but the skills required for success are wanting. The accompanying challenges are apparent and exciting and will certainly help to achieve the goals of adult education:

1. to help the learner achieve a degree of happiness and meaning in life;
2. to help the learner understand himself, his talents and limitations and his relationships with other persons;
3. to help adults recognize and understand the need for lifelong learning;
4. to provide conditions and opportunities to help the adult advance in the maturation process spiritually, culturally, physically, politically, and vocationally;
5. to provide, where needed, education for survival, in literacy, vocational skills, and health measures.
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References

16. Ibid.
17. Ibid., pp. 164-65.
Forecasting the Future of Community College Learning Resources Centers

GLORIA TERWILLIGER

The design of the future is sketched on an invisible canvas whose linear dimensions extend into the very outreaches of space. Our ability to view and discern this design today is enhanced by our knowledge of the historical past and of the global present, a knowledge whose scope was severely limited in past epochs.

The transmission of ideas, facts and feelings from one organism to another to sustain life is the greatest achievement of mankind. The evolution from oral to written communication, spurred by the need to transmit information in an independent, objective format, is a history well known. The printing press, which increased the flow of information, popularized knowledge and encouraged literacy, now appears as a part of the continuum of knowledge transfer rather than as a new technology.

The computer, with its functions of memory, computation and control, provides an awesome extension of mind power. The linkage of computers and communications technology is an art-science, feeding upon its association in a symbiotic relationship. Computer/communications technology is shaping the future while at the same time it is providing mankind with the power to control and configure the design.

Societal transformations are the inevitable results of this revolutionary technology which has vastly increased human ability to originate, store, manipulate, control, interpret, and transfer information. Perhaps the most significant difference between the mass distribution era (fostered by the printing press) and the contemporary computer/

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communications era is the historical knowledge available to us today.

The written word, mass produced after Gutenberg's invention, introduced new power, formerly narrowly restricted within a privileged group, to virtually anyone who could achieve literacy. Words written down became the conveyors of literature, historical knowledge and technical information. The power of increased access to knowledge began to have its effect:

Word magic is one of man's most wonderful dangerous tools. It builds air castles, raises an army of dragon men, fixes a star on a name and sends human blood running through dirty gutters.¹

The increased literacy of early modern times provided only a limited view of the society. Man began to become aware of his history, but the collective recorded wisdom of past eras was not readily available. As the awakening sense of historical consequence led to the emergence of a "community of scholars" in the western world, the growth of a published and accessible body of historical thought provided perspective for the continued interpretation and scrutiny of the past. The conditions which produced Gibbon and Macaulay laid the framework for Darwin and Marx.²

The Industrial Revolution, which began in eighteenth-century England, created a momentum which has been irreversible, and which has increased its velocity with the advent of computer/communications technology. Still in a prototypical stage of development, still primitive in utilization, this technology has enormous capabilities which are stimulating the efforts of mankind to interpret and understand the information cycles of the past, the present and the future. For the first time in history, mankind has the tools to produce objective information, to transmit this knowledge instantaneously worldwide, and thereby to influence the future.³

The dimensions of tomorrow's world are being modeled by today's futurists on a global scale. Futures research is a widespread phenomenon, ranging from national policy institutes to international teams of intellectuals all exploring the implications of current activity upon the world's future.⁴

The goals of futurists transcend economic and political powers, aim toward increasing understanding, and promote future relationships among the Old World, the New World and the Third World. One of the largest futurist groups, the World Future Society, includes among its more than 40,000 members scholars, political and business leaders, scientists, economists, educators, and planners. Bertrand de Jouvenel, Robert Theobald, Amitai Etzioni, and Yoneji Masuda are but a sam-
pling of the international scholars involved with the effort to identify, analyze and propose solutions at a global level.

Yoneji Masuda depicts the evolution of an information society of the future, predicated on a "global information utility" using a combination of computers, communication networks and satellites, which would have "an incalculable effect on human society." He further predicts the transformation of individualistic principles to a new principle of "synergetic cooperation" based on mutual assistance worldwide.

The future of the postindustrial society is inexorably linked to the design of a global societal future. The individual in control of his or her immediate environment has been a myth for generations. The acceptance of interdependence as essential to the common welfare is a basic principle in planning any future system.

The future of higher education, of which the future of the community college is an integral part, is linked with the educational needs of the information society. John Naisbitt, in *Megatrends*, predicts that education will be "reconceptualized" during the next decade, and provides a caution based on his long-range perspective: "If you specialize too much, you may find your specialty becoming obsolete in the long run. As a generalist, committed to life-long education, you can change with the times." Naisbitt laments the lack of literate high-school graduates, as reported in the Carnegie Council of Policy Studies in Higher Education, and comments on the number of corporations entering into the education business by offering remedial courses in basic math and English for entry-level workers. He states:

without basic skills, computer illiteracy is a foregone conclusion. In the new information society, being without computer skills is like wandering around a collection the size of the Library of Congress with all the books arranged at random with no Dewey Decimal system, no card catalogue—and of course, no friendly librarian to serve your information needs.

Satisfying information needs in such a society will be predicated on the attainment of superior information skills. Achieving basic skills on which academic success depends is a responsibility shared by all segments of the educational community. General education, continuing education and extended access to information are fostered and strengthened by excellent libraries. The technical and scientific community is dependent on information—accurate, complete and current. In a world where knowledge is a commodity, the library assumes an increasingly significant role. Masuda considers information and knowledge industries the "key industries of the future"; he categorizes libraries, along
with schools, as part of the education industry and as one of the "pillars" of the information society. The attainment of basic skills, the assurance of academic quality and the provision for lifelong continuing education are among the major challenges to the education industries. With an economy based on the creation and distribution of information, maintaining a literate and educated population is increasingly critical to economic, social and political survival in the future.

In the summer of 1981, Change magazine devoted the major part of an issue to the future of community college education. Funding policies, the literacy crisis and the renewed emphasis on excellence and honors courses were examined with candor and with resolution for increase in quality, with an emphasis on general education as well as on technical and vocational skills. The future of the community college in the structure of higher education is uncertain, dependent as it is on the state of the economy and the intensified competition for enrollment and resources.

A study of alternative futures was recently undertaken by the Brookings Institution, drawing on data supplied by numerous authoritative sources as well as anecdotal information collected on site visits. Although implications for their futures emerge on a somewhat pessimistic note, the researchers recognize the gravity of the need for governmental support of education. Breneman and Nelson acknowledge that the potential market for lifelong learning is a legitimate need and is a market only partially tapped, with community colleges "well-placed geographically and philosophically to develop further this educational frontier." Their reluctance to include continuing education as a valid mission, supported by federal and state subsidy, may be attributed to the academic orientation of the distinguished institute, which continues to measure proper educational effort in terms of the traditional model of the eighteen to twenty-two year old degree-seeking learner.

However, this traditional learner may no longer be the typical community college student. The presence of the adult learner is an incontrovertible fact. Bringing maturity, experience and judgment, the adult learner is a significant factor in the future of the community college, on which his or her continued training and retraining depends.

As we narrow our perspective to focus on an aspect of the invisible canvas on which the future is sketched, we must not neglect the impact of the emerging global society. The variables which will influence and determine the future of community college learning resources centers (LRCs) may be divided into two broad categories: (1) external—beyond
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immediate control and impinging on its development, and (2) internal—capable of control or manipulation. Among the external factors are the future of computer/communications technology, of the society, and of the economy and funding, all of which affect the future of the institution. Among the internal factors are the structure and perceived value of the learning resources center, the professional capabilities and continuing education of the staff, and the psychology of the institution.

Although computer technology is not new, its application to educational systems, including libraries, is still in the early stages of development. Predictions about the applications of technology frequently have underestimated its abilities to change our lives and to foster social change. The future of the telephone in the late nineteenth century was said to have been considered quite limited due to an ample supply of messenger boys. The illustrious Benz, in 1927, is said to have predicted the manufacture of 40,000 of his motor cars over the next forty years—if enough chauffeurs could be trained. 12 Microfilm, developed and refined during World War II, was seriously considered to herald the demise of the book. When that proved to be an unfounded prediction, the advent of electronic publications and corresponding databases again produced a doomsday scenario, another lament at the passing of the book. In fact, the computer and database access have to some degree strengthened the future of the book, providing more comprehensive indexing to printed materials, and more immediate access for locating desired printed materials.

In probing the use of new technologies, the natural tendency is to view each emerging facet in terms of single or limited applications; while in fact contemporary and future computer/communications technologies are, by definition, multidimensional. A broad-based perspective is essential. An example familiar to librarians was the tendency of the 1960s and 1970s to develop computerized library circulation systems without considering that the circulation system might be integrated electronically with other library operations in the near future.

The dominant role of computer/communications technology is assured. Time frames are unpredictable due to compression of successive generations of development. Whatever the human mind can design in terms of technological requirements can be accomplished: "If we can dream it, we can do it," is the theme of the General Electric pavilion at the Epcot Center in Florida. The portion of these future technologies that will be devoted to educational purposes cannot be easily predicted; and uses of computer technology for educational purposes will vary and
will be fragmented as were applications of technology in the late sixties
and early seventies. Once the effects of networking capabilities have
begun to show value, however, there will be an acceleration in the
adoption of the use of technology. The application of communications
technology to computer systems lifts the individual institution out of
isolation into shared benefits.

The social future and the role of post-secondary education can be
partially forecast from data on hand—i.e., by projecting the number,
type and needs of students—and from conjectures about future method-
ologies of instruction. The diversity of individual and social needs in a
pluralistic society will probably maintain the diversity of methodolo-
gies of instruction. It is earnestly hoped that the use of computers in
instruction will provide sufficient machine-generated data to facilitate
research from which the most appropriate and effective uses of the
technology can be extracted and applied.

The economic future is closely related to federal, state and local
funding formulas, fiscal prudence, marketing techniques, and political
persuasion. Although the economy has the greatest impact on the future
of any unit of the college, economic factors are probably the least
predictable over the long pull, and the least easily influenced by individ-
uals. Planning, justification, measurable outcomes, and frequently,
psychological factors are related to economic equities and inequities.
The psyche-futures—i.e., the human factors relating to faculty, staff and
the organizational structure of the college—are entwined and inter-
linked with the economic future of the institution. In summary, the
future of any one institution is dependent on the intricate balance of the
many technological, social, economic, and psychological factors which
are present within the organization and within the community it serves,
and they are linked with state and national directions for the future.

The future of the learning resources center within an institution is
related to these external factors, as well as to its present organization and
functions, for no future exists without a past, and the past influences the
future. The learning resources center unit contains the internal factors
over which control has been and will continue to be exerted, utilizing
whatever external factors can be effectively employed.

Historically, the community college learning resources center has
long been recognized as an important instructional service. In the 1930s
B. Lamar Johnson, the Librarian and Dean of Instruction at Stephens (a
junior college), created and reported mutually supportive relationships
between the library and the classroom. His publications have been
widely read and quoted, influencing not only library professionals but
community college administrators as well.
In the early 1940s, the role of the library in general education was closely examined by the National Society for the Study of Education. Part two of the forty-second yearbook of that society was produced by a distinguished "Committee on the Library in General Education." Innovations regarding the use of "nonreading" as well as reading materials in promoting learning were noted, as were other radical departures from traditional library practice, including collecting and circulating paintings, recordings and motion pictures, and providing for conference rooms and exhibits. Johnson, writing for that volume, used a phrase which has since become common usage; he recommended "making the library the resource center of the college." \(^\text{14}\)

Not long afterward, many existing community college libraries began to undergo major transformations, paralleling the institutional change from a "junior college" to a comprehensive community college. Some simply retained the library intact, adding facilities to accommodate emerging audiovisual technology and to provide needed instructional support services for self-instructional programs. During the late 1960s and early 1970s, when new community colleges were being established at an unprecedented rate, the concept of the comprehensive learning resources center became fully developed, varying according to the mission and institutional goals of the individual colleges.

The new LRCs were designed to encompass a broad range of instructional support services, including the library, audiovisual materials, distribution, graphic and photographic reproduction, video production, audio- and video-learning laboratories, tutorial services, reprography, career information centers, and learning assistance centers. \(^\text{15}\) Expansion of LRC responsibilities to include computing centers and telecommunications centers was delineated in the 1972 publication, "Guidelines for Two-Year College Learning Resources Programs.\(^\text{16}\) These changes occurred in response to the expanding comprehensive development of the institution and the lack of preexisting instructional support units.

Social unrest and the clamor for relevance, which became a clarion call of student rebellion during the 1960s, had little effect on the emerging community colleges. Most institutions of higher education, woven into the fabric of the larger society, were being stretched and torn by the broad social forces in upheaval; but community colleges were virtually untouched. In many cases, the instructional methodologies were relevant, the faculty eager and energetic. "Islands of innovation" stretched across the continent—the new community colleges which were unaf-
fected by tradition, and whose organizational and physical structures were designed to adapt to change.

Many of the new campuses were designed to offer maximum flexibility for adapting to emerging technologies. A planning statement published in 1971 reflects the educational strategies employed in designing a new campus:

Educational innovation is a challenge to today’s administrators, particularly in planning new spaces. As the variables which produce learning are identified and introduced into educational systems, the learning spaces must be designed to respond. The non-traditional architecture developed here is in direct response to carefully-plotted interior space design, as form follows the specified functions.17

During the decade of the seventies, a number of LRCs became heavily involved in instructional development, including computer-assisted instruction. For example, in the early seventies, the Maricopa Campus of Phoenix Community College and the Alexandria Campus of Northern Virginia Community College were designated as demonstration sites for the National Science Foundation thrust in computer-assisted instruction. Known as TICCIT (Time-shared Computer-Controlled Information Television), these projects have continued to the present and serve as instructional delivery systems for full courses in algebra, English grammar and remedial English, as well as supplementary material in various subject areas. The original project was centered at Brigham Young University where course development continues.18

The proportion of LRC expenditures in the college operating budget began to escalate, rising above national norms. In some instances, the emphasis on instructional development shifted funds and diverted attention away from library collections and use of the library. Although no definitive study has been carried out, it is common knowledge that at some institutions where expenditures for expanded LRC operations outpaced established norms, the severe budgetary restrictions and enrollment declines of the early 1980s resulted in the abolition of positions and sometimes of entire service units which had been dedicated to instructional development. Funds were shifted to other areas of the college, often to support the relentless financial demands of computer technology.

The learning resources center has been evolving since its inception, developing from its original role as an expanded library designed to provide comprehensive support for instruction. As the technology of instruction changes, and as support for programs fluctuates, so does the
shape and service of the LRC change. Libraries in four-year colleges and universities have undergone similar transformations, but on a different scale. In many large institutions, the span of control within the library was already so great that new units outside the library were constituted to handle instructional support services. During the decades of the 1960s and 1970s when funding for instructional technology was lavish, new administrative units not connected with the library were formed to accommodate television production and elaborate audiovisual support services. As the promises of educational technology in the form of machine-supported individualized instruction began to fade, and as the new promises of computer/communications technology began to glow, funding shifted to favor the new technology.

Learning resources center systems, services and materials have been designed and structured as supports for achieving institutional instructional objectives. The collections, the equipment, the facilities, and the staff constitute balanced, yet flexible systems. There is a long record of experience in instructional systems including learning laboratories designed for group and individualized instruction, technical instructional supports, sophisticated video services, and telecommunications systems. The integrated LRC, with its educational support services under the management of a single administrator, is ideally suited to shift emphasis to the academic applications of computer/communications technology.

The technological revolution has imparted new values to information. The information society is predicated on access to large bodies of information. Access to information is a prerequisite to informed choice, on which the social and economic future of an individual is largely dependent.

Information exists in many forms—books, periodicals, microforms, audiovisual materials, realia, ephemera, software programs, and databases. Whatever the format, systems of organization, access and retrieval are absolute requirements. Libraries are trusted with implementing and designing these systems. The structure of the library—or resources center—is predicated on the organization of materials for access.

In the past, the most common access was the card catalog, a system developed with clarity of format and logic, which provided access from several major subdivisions of a citation. When computer technology was applied to the card catalog, machine accuracy and consistency increased its power. More access points per citation could be created with less tedium and with greater accuracy. The technology simplified and speeded up the process of finding and using library records, and
even more important, the development of uniform processes enabled the transfer of biblio- and mediagraphic information among libraries. Librarians, who had previously worked with common rules but in relative isolation, were willing to loosen their individual control for a greater goal—increased access to information for all. Today, machine-readable databases in internationally consistent forms make possible the development of interlinked systems which will lead to new dimensions of collection development, resource sharing and accessibility.

Many LRCs across the country have been profoundly influenced by the concepts expressed in the 1972 “Guidelines for Two-Year College Learning Resources Programs.” The guidelines were developed over a period of several years by a joint committee of librarians and audiovisual specialists, which was chaired by J.O. Wallace, director of Learning Resources at San Antonio Junior College, who has served as a role model and mentor for hundreds of community college learning resources professionals.19

The learning resources “program” is defined in the “Guidelines” as, “an administrative configuration within the institution responsible for the supervision and management of Learning Resources Units, regardless of the location of these components within the various physical environments of the institution.” The LRC is charged with meeting the needs of the students, and being organized and managed for users. “The effect of combining all learning resources programs under one administrative office provides for the maximum flexibility, optimum use of personnel, material, equipment, facilities, and systems to permit increased opportunities for the materials best suited to the user’s needs.”20

Ten years after the “Guidelines,” Robert A. Plane, president of Clarkson College of Technology, described the restructuring of his college library. In 1974 the library had been identified as the “number one problem” at Clarkson.21 Under Plane’s direction, a faculty library committee helped form the Industrial Advisory Council to discuss the philosophy of a college library of the future. Representatives from Bell Laboratories, the General Electric Research and Development Center, Corning Glass, Eastman Kodak, Fairchild Camera, IBM, Kennecott Copper, Proctor and Gamble, Xerox, and the United States Department of Commerce served on the Industrial Advisory Council.

Discussions of the Industrial Advisory Council helped form the design of the Clarkson Educational Resource Center. Emphasis was placed on the centralization of related functions: “From the start it was noted that the Center should be viewed as the hub of a campus-wide
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system to provide integrated information support for the instructional, research, and administrative activities of the college. The concepts influenced the decision to abandon the word library in favor of the term educational resources, which Plane indicated was "to imply that the new library concept would be not only different but truly designed to support the educational enterprise. It would in fact have an expanded role." 22

Ten years before the development of the Clarkson concept of an "expanded library," the "Guidelines" had identified this as a desirable practice in community college learning resources centers.

The active role of the LRC in instructional development and instructional systems is clearly defined and acknowledged in the "Guidelines." The instructional supports from the "new" technology of the late 1960s and early 1970s were provided for the community college by LRC staff. Librarians were retrained and developed new and expanded competencies. The new media formats, including any equipment necessary for their use, were assimilated into the resource collection, as entities which needed to be described, classified, processed, labeled, maintained, and organized for access and use. Specialists were hired to provide the technical capabilities essential to the instructional technology of the times. The LRC filled an institutional need.

The restructuring of LRCs reflects an unmistakable parallel with the computer/communications era. LRC staff have anticipated the demands of the new technologies. Library school curricula and continuing education programs have been focusing on the applications of computer technologies to library processes for a number of years. Librarians, as the managers of information and resources, are applying their knowledge to the formats demanded by the new technologies. 23

It may be appropriate at this point to comment on the educational technology and instructional development programs of the late sixties and early seventies. For a few uncertain years there was a struggle for supremacy between the disciples of educational technology and the librarians. The difficulties resolved themselves as each discipline found its professional level in relation to mission, content and applications. Educational technology, in its most highly developed forms, is responsible for extended learning systems in "nontraditional" environments, utilizing cable, computer and satellite technology. The system has been defined by Bernard J. Luskin, executive vice-president of the American Association of Community and Junior Colleges, as:

1. A model for the design and validation of high-quality college-level courses.
2. A model delivery system.
3. An investigation of the effective uses of technology to make education available to people where they are.24

Instructional development, a technical component of educational technology, has become integrated into the instructional support services offered by LRCs. Film services, video production and services, graphics, audioservices, and other related technical supports, once considered "innovative," are essential to the instructional programs of the college. The experiences of learning resources center personnel in adapting to the expanded information formats of the sixties and seventies have provided them the potential for becoming the campus center for academic computing support services.

Among the major academic libraries which have accepted this mission are the University of Wisconsin—Parkside and Clarkson College. Both enjoy enlightened leadership. Robert Plane, Clarkson College president, and Alan E. Guskin, chancellor at Parkside, both have lectured and published on the educational values of placing the library in the midst of computer technology. At Clarkson College, the computer center and the library are housed together in the newly completed Shuler Educational Resource Center (ERC). The ERC accommodates traditional library resources, sophisticated audiovisual "technologically-assisted education," student access to terminals linked to the central computer, college archives, extensive use of microforms, and compact shelving, electronically controlled.25

Guskin at Parkside regards microcomputers as "powerful educational tools" which "must be treated by educational policy makers as part of the academic support services of a university available to everyone, much as other resource materials are treated...."26 The rationale provided for the library's role in computer technology is significant enough to warrant full reprinting:

1. Librarians tend to be people oriented and have professional experience in responding to the information needs of the faculty and students.
2. Librarians are skilled in information retrieval activities and changing technologies, even though they will obviously need additional training to become sophisticated in all aspects of computer searching and computer networking.
3. Librarians are information specialists, trained to be concerned with information acquisition, dissemination, and use.
4. Librarians are managers; they are involved in a host of administrative activities including purchasing, work-force analyses, and managing large numbers of part-time and full-time people. The library is the only campus unit organized to handle the information needs of a large number of users in an orderly, systematic way. The librarian's
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ability to manage will be important in administering new information technology and understanding staff needs.

5. Librarians tend to be responsive to changing university priorities.27

Predictions for the Future

With the wide application of computer/telecommunications technology, the future has arrived. Each learning resources center in the more than 1200 community colleges in America will adapt and reconfigure its present in accordance with previous patterns, leadership, the physical and social environment, and the current stages of growth. The logic of incorporating academic computing within the learning resources center has already spawned computer labs in a number of community colleges.

In planning for the leadership role of the library as the center of academic computing, the most convincing and attractive aspect for college administration is that no additional funding is required, merely the allocation to the LRC of funds already appropriated for this purpose. The rationale quoted earlier—developed by Guskin, Stoffle and Baruth—contains cogent and sensitive statements which apply to community college learning resources centers as well as to universities.28 In fact, the extensive experience with mediated instruction in laboratory settings has prepared LRC staff for the complications of operating microcomputer labs, which require control and distribution of reference manuals, diskettes and software; maintenance of training and consulting services; and enforcement of procedures.

The application of computer technology to library systems is slowly gaining momentum around the nation. Arguments to use in convincing policy makers and budget officers may include the advantages of networking, and the potential for limiting the size of the collection. Clarkson College has established limits to its monograph collection, which will be augmented by the use of online databases, microforms, and compact shelving.29

The importance of the role of the LRC in computer/communications technology cannot be underestimated. Just as educational technologists and librarians were able to define their respective roles, so must the data specialists in the computer center and the librarians in the LRC assess and analyze the future of information handling at the college, in order to delineate functional responsibilities. The principal role of the public service librarian is to "provide a link between the user and information resource. To accomplish this requires the ability to
define the information problem, to understand and be sensitive to the needs of the individual student or faculty member, to be knowledgeable about available information sources, and to know how to gain access to them in a reasonable time period. These qualities and professional skills are essential to the effective utilization of database searching, which must be used in conjunction with other resources in the LRC.

The competition for budget allocations will not diminish. The financial advantage of centralizing control is a factor which can be demonstrated. There is an equally important instructional gain—i.e., of providing centralized access to serve the interdisciplinary computing needs of the institution.

Under the best of conditions, the LRCs will expand and prosper. Long-range planning, persistence and the ability to cope creatively with obstacles will result in a stronger role for academic librarianship in a computer/communications society. The technologies already in place in the LRC—the audiovisual supports, the mediated learning labs, the microforms, the film and recordings collections, will not be "disinvented." Proportions of media formats in the collection will vary as the effects of computer/communications technology begin to have an impact. Demand and use will govern these futures.

Audiovisual services will gradually change their scope and function as a result of new technologies. The incorporation of "instructional development" in classroom instructional support has been noted. In some instances the shift will focus on "computer tech" in place of "ed. tech," depending on facilities and competencies. The audiovisual professional who has been responsible for mediated instructional laboratories will shift easily into administering microcomputer laboratories. In some instances, existing responsibilities for sophisticated audiovisual supports will continue.

The future of local video production centers in the LRC may be weakened as institutions look to professionally produced and widely marketed telecourses. The exceptions will be in those instances where video production and local cable transmission have become a significant part of the institution, particularly if credit courses are generated through the technology. The emphasis may shift from production to delivery systems where extended learning is an institutional priority. Implications for retraining and professional development should be carefully considered by mid-career personnel.

The future of mediated instructional laboratories will fluctuate as new and validated materials are developed in the areas of computer-assisted instruction, computer-managed instruction, and computer-based instruction. The LRC that housed a typing lab will provide a
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microcomputer word-processing lab. Math labs, reading labs and remedial English labs will be equipped with microcomputers as effective software programs are developed for those critical skill areas. The lab supervisors and staff assistants will need minimal training in operation of the new equipment, and the basic functions of control, access and distribution will not change.

The size of the institution and the LRC facilities will determine, to a great extent, the scope of the operation. In a smaller institution, one microcomputer laboratory with extended hours and a carefully selected software collection can serve word-processing, individualized skills instruction and assignments in data-processing classes. The capabilities of microcomputers have barely been exploited and they are increasing. The clustering of microcomputers in a lab setting is highly desirable: fostering interdisciplinary use, economies of staffing and greater access to programs.

The LRC should consider providing a computing support center for faculty and staff where workshops, instruction, practice and consultation can be carried out. If facilities and funds permit, a large center also could be used for business and industry training, literacy training for citizens, and recertification for public school teachers. If facilities and funds are modest, even a small area where privacy can be maintained would be of value to faculty, who are learning new skills in order to become knowledgeable about computers and instruction. Such a center, organized by LRC staff, could strengthen the instructional partnership between the LRC and the faculty.

Two other factors, not related per se to computer/communications technology, are seen as imparting increased value to the LRC. One is the continuing lifelong learning role of the institutions. The adult learner is more demanding, is often more familiar with the resources, is more able to define his or her information needs to the library staff, and most important, is able to express a perception of the value of the services.

The other factor is the increasing emphasis by the institution on general education courses, coupled with the emergence of honors programs in many institutions. These thrusts are significant in their dependence on strong library resources. The library function, which has been the foundation of the process of education, will continue to be fundamental to instruction, strengthened and expanded by the capabilities of new technologies.

The educational needs of the information society will be greater than ever before in the history of mankind. To the continuing scrutiny of the past will be added the interpretation of unprecedented masses of information on which to base the future.
GLORIA TERWILLIGER

The LRC is the campus unit which can fuse the instruments of technology and the accumulated knowledge of the past, present and future. LRC staff members in more than 1200 community colleges in America represent a vital resource of experience and professionalism, and these staff members are ready for the challenges of the computer/communications era. Reading the design of the future is a responsibility which will require enlightened leadership and support.31

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7. Ibid., p. 96.
8. Ibid., pp. 32-33.
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22. Ibid., p. 15.
27. Ibid., p. 181.
28. Ibid., p. 179.
29. Plane, "Merging a Library."
31. The analogy of the future’s invisible canvas is drawn from a poem by Andrew Hughes, published in Yoneji Masuda’s work *The Information Society as Post-Industrial Society*, Washington, D.C.: The World Future Society, p. 47. (The poem appears on the title page to part two, “Framework of the Information Society.” Life is so rich / making dreams come true / beyond the satisfaction/of today’s needs / to grasp time-values / and create the design / etched / upon / the future’s / invisible canvas.)
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† Also available in clothbound editions.
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Procedures for Proposing & Guest Editing
an Issue of *Library Trends*

**Scope**

*Library Trends* focuses on library and information science topics of interest primarily to practicing librarians and information scientists and secondarily to educators and students. The style and tone of this quarterly are formal rather than journalistic or popular. *Library Trends* issues review the literature, summarize current practice and thinking, and evaluate the directions practice is taking. Papers must represent original work, published for the first time in *Library Trends*. Extensive updates of previously published studies are acceptable, but revisions or adaptations of published work are not sought.

**Processes of Proposing and Publishing**

An issue editor proposes the theme and scope of a new issue, draws up a list of prospective authors and articles, and provides short annotations of the articles' scope or else gives a statement of the philosophy guiding the issue's development. The issue prospectus is examined by the Graduate School of Library and Information Science (GSLIS) Publications Committee and requests for clarification or modification may be made before the prospectus is approved.

Once the prospectus is approved by the GSLIS Publications Committee, the issue will be scheduled for publication and the issue editor begins by inviting authors to write for the issue. The Publications Office will alert the authors to issue deadlines and will send them "Instructions for *Library Trends* Authors." The issue editor also will be sent a copy of the instructions along with "Suggestions for *Library Trends* Issue Editors." The suggestions are culled from our experience in editing and dealing with questions raised by issue editors and authors. Included are the typical stages an issue passes through; responsibilities of the issue editor; the responsibilities of the Publications Office editorial staff; and the typical timing of the writing, editing and production stages. Generally, it takes 1-2 years from proposal to publication.

**Soliciting Readers' Ideas**

We publish *Library Trends* using theme suggestions of GSLIS Publications Committee members and our readers. We welcome ideas for issues and for writers that our readers would like to hear from. We also encourage readers to volunteer to be issue editors or to suggest others who may be willing. Please write us with your ideas or inquiries: GSLIS Publications Office, University of Illinois, 249 Armory Building, 505 E. Armory Street, Champaign, IL 61820 or call: Susan Dingle (Associate Editor), or James Dowling (Managing Editor) at 217/333-1359 or Charles H. Davis (Editor) at 217/333-3280.
Library Trends

Forthcoming numbers are as follows:


Fall 1985, *Women and Leadership in the Library Profession*. Editor: Rosemary Ruhig DuMont, Associate Professor, School of Library Science, The University of Oklahoma, Norman, Oklahoma.

Winter 1986, *History of Library and Information Science Education*. Editors: Don Davis, Associate Professor, Graduate School of Library and Information Science, The University of Texas at Austin; and Phyllis Dain, Associate Professor, School of Library Service, Columbia University.

Spring 1986, *Current and Future Trends in Library and Information Science Education*. Editors: George S. Bobinski, Dean, School of Information and Library Studies, State University of New York at Buffalo; and Michael E. Koenig, Associate Professor, School of Library Service, Columbia University.