In This Issue—

PAMELA REEVES, Junior College Libraries Enter the Seventies

ROBERT C. SULLIVAN, Microform Developments Related to Acquisitions
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Leonardo da Vinci's CODEX ATLANTICUS

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Most of the brackets had been scratched during handling and several had one or more paint runs. Three brackets had "finished-over" rust spots and one bracket had a scratch (about 2 inches long) that had been finished over. Two of the uprights had drip spots and were not completely sprayed. Some of the shelf ends were not completely sprayed.

Comments on the . . . shelving were generally favorable with the following exceptions: unsatisfactory finish, i.e., paint runs and rough spots on the brackets, was noted in one reply. Two replies noted late delivery of the shelving and one reply noted an incorrect shipment of end panels. Another reply mentioned a continual breakdown of the hinges on accessory-periodical shelving. Finally, one reply most critical of [the] shelving noted that the brackets have a tendency to collapse when unhooked and that shelving ranges could be swayed, and possibly toppled, when fully loaded.

From an evaluation of the same shelving in the March, 1971 LIBRARY TECHNOLOGY REPORTS.

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CONTENTS

5 Editorial

Pamela Reeves

Robert C. Sullivan

Richard M. Dougherty

Charles H. Stevens, Marie P. Canfield, and Jeffery J. Gardner

H. Vail Deale

Larry Auld and Irene Voit

Eugene P. Sheehy

JANUARY 1973
VOLUME 34
NUMBER 1

7 Junior College Libraries Enter the Seventies

Robert C. Sullivan

16 Microform Developments Related to Acquisitions

Richard M. Dougherty

29 The Evaluation of a Campus Library Document Delivery Service

Charles H. Stevens, Marie P. Canfield, and Jeffery J. Gardner

40 Library Pathfinders: A New Possibility for Cooperative Reference Service

H. Vail Deale

54 Library Group Practice

Larry Auld and Irene Voit

59 Selected Reference Books of 1971-72

Eugene P. Sheehy

69 Letters

71 Recent Publications

71 Book Reviews

Guidelines for Library Automation, by Barbara Evans Markuson, et al, Robert M. Hayes

The Evaluation of Information Services and Products, by Donald King and Edward C. Bryant, Robert W. Burns, Jr.

Woman and the Equal Rights Amendment: Senate Subcommittee Hearings on the Constitutional Amendment, 91st Congress, ed. by Catherine Stimson, Anita R. Schiller

Access to Library Collections, by Richard Joseph Hyman, William Chase

Current National Bibliographies of Latin America: A State of the Art Study, by Irene Zimmerman, Stanley I. West

Readings in Library History, by Leslie W. Dunlap, Antje B. Lemke

Computerizing the Card Catalog in the University Library: A Survey of User Requirements, by Richard P. Palmer, Ralph E. Stierwalt

Other Books of Interest to Academic Librarians

82 Abstracts
Manuscripts of articles and copies of books submitted for review should be addressed to Richard M. Dougherty, editor, College & Research Libraries, University Librarian, University of California, Berkeley, California 94720. All articles submitted must be accompanied by an abstract of from 75 to 100 words in length. Material for the News issues should be sent to Michael Herbison, University of Colorado, Colorado Springs Center, Colorado Springs, Colorado 80903.

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Camelot . . . A Quest Or A Kingdom?

Is it possible for teachers, librarians, instructional technologists, information scientists, and materials producers to develop a unified commitment to the learning process? This question was raised at a technically superb presentation entitled “A Common Quest,” presented at a special session of the 1972 National Convention of the Association for Educational Communications and Technology. Although the presentation was aimed at education in general with specific emphasis in the areas of elementary and secondary education, it seems equally imperative that higher education should address itself to the same question.

The producers tried to make King Arthur and his Camelot analogous to the educator and his school. As King Arthur searched for his impossible dream, the educator must search for his dream, i.e. the quest of the meaningful whole in a learner’s education that will lend to a “theory of education.”

Two experiences which had occurred earlier during the convention week had already instilled a healthy cynicism toward the viewing of this idealistic multisensory show. The first came from the realization that out of the nineteen members of the board of directors of this national association only one member has any direct ties with library and information science. In addition, out of the seven members on the executive committee, all are directly related to schools of education or audiovisual media service agencies. We recognize that this is an association for educational communications and technology; however, the quest of the educators’ Camelot does not seem to have much representation in the hierarchy of this national body.

The second experience was based on impressions gathered from visits to two separate campuses. Both are of the same general size, composition, and purpose. The first visit was sponsored by the convention and the second was a personally initiated fishing expedition. The first campus sports a brand new educational center housing classrooms, faculty offices, reading rooms, an auditorium, a language laboratory, and an audiovisual learning center. When the director of learning services was questioned about the relationships between this center and the college library, he stated that he was not aware of any direct relationship. The two agencies seem to have different purposes. He described the learning center’s purpose as one of direct, active use to the students. He envisioned the library as a more passive, storehouse operation.

The second visit was in direct contrast to the first. This campus has
a brand new educational facility but it is called a "library." To be sure, audiovisual equipment was on hand, but it did not seem to be in constant use. The library administration and staff have been involved with a funded project for the past five years to study the undergraduate information system. They are very concerned with how the user seeks, receives, and interacts with information. They are extremely aware of the total informational needs which include nonprint media, but the staff seemed to emphasize the need to explore the total information needs of the campus.

These two views seem to be poles apart. They mirror two of the many attitudes one can observe in educational and library circles. One is that a specialist looks at education from his own perspective and feels it necessary to defend his own special interest area. And, second, one must analyze how many people use a system in an attempt to view information and educational needs as a whole. They analyze and serve needs rather than buy and dispense books, films, or tapes.

We, as librarians, must be prepared to recognize and develop realistic dreams that will challenge the kingdom builders. We need a round-table of teachers, librarians, instructional technologists, information scientists, and material producers working together to make Camelot a quest of the meaningful whole rather than a series of fragmented kingdoms.

Morell D. Boone
Junior College Libraries
Enter the Seventies

The junior college as a major focus of higher education is a relatively new development in most parts of this country. An extensive questionnaire survey and program of site visits reveals norms of practice in five areas of junior college library operation: instruction in library use; community relations; collection development; staffing, hours and circulation practices; and automation. Notable trends include strong audiovisual services, liberal circulation policies, and limited professional coverage. Findings reveal a profile of library services resembling a cross between university and public library operation.

Big news in education during the past decade boom has been the public two-year college boom. The number of junior colleges increased by over two-thirds during that time, and enrollment increased almost five-fold. In thirteen years before 1968, the proportion of all undergraduates who were in two-year colleges increased from 18 to 28 percent. By now, at least one third of all students starting higher education enter a junior college.1

Geographic distribution remains uneven; in California and Florida, over half of the undergraduates and over two-thirds of the entering freshmen are in junior colleges.2

Junior college students present a great range of traits but by and large are significantly different from four-year college students: lower in academic ability and aspirations, older, from lower socioeconomic levels. A larger proportion of them are part-time students concurrently holding a job; most are commuters. In most respects they resemble their nonstudent age-peers more than they resemble four-year college students.3

Given the recent growth boom, there are many librarians who came to junior colleges with previous experience in public, school, and university libraries. They have had to adapt. Their new clients are less sophisticated than university students, yet have course-related needs which are less casual than those of most public library patrons and somewhat more challenging than those of high school students. Those in technical programs have needs that can stump the typically generalist librarian.

Most of the meager literature produced so far about junior college libraries, if not describing specific libraries, deals with standards or guidelines. This article reports instead what is actually being done at junior college libraries.

For the survey reported here, some 600 questionnaires were sent to junior college libraries in the United States; responses were received from 250. Visits were made to 53 colleges around the country, covering the seven "pacesetter
states” (California, Florida, Illinois, Michigan, New York, Texas, and Washington) and most of the fourteen other states which are undergoing substantial junior college development.4

The responding 250 included private as well as public colleges but private colleges were a small proportion (14 responses), partly because of the other criteria used: comprehensive curriculum (both college-parallel and technical-occupational), at least five years old, and at least 400 students.5

In addition to basic institutional data, information was collected in five areas: (1) instruction in library use, (2) relations with the outside community, (3) collection-building, (4) staffing and public service, (5) uses of automation. (Audio-visual materials and methods, which have an important place in most junior college libraries, will be studied in a separate project.)

The sample divided itself into four approximately equal full-time-equivalent (FTE) enrollment groups, as follows: (1) under 900, (2) 900-1,999, (3) 2,000-4,299, (4) 4,300 and over. For FTE as percent of total headcount, the median was 73 percent. As to opening year, the sample included four approximately equal groups: (1) pre-World War II, (2) 1945-1960, (3) 1961-1965, (4) 1966 and later. Nineteen percent of the respondents are located in a central city, 14 percent in an inner suburb or residential city area, and 66 percent in an outer suburb, small town, or rural area. Regular public or college-operated transportation is available to only 29 percent of the respondents. (Here’s where the much-touted “open door” turns out to be partly closed.)

LIBRARY INSTRUCTION

The door is open far enough, however, to let in a great number of students who need a great deal of help in using a library. By far the most common approach to library instruction, reported by 88 percent of the respondents, is group instruction to classes. English classes are the most frequent but a great variety of others were mentioned. Many librarians expressed a strong preference for giving such instruction only when it served an immediate assignment need.

Also common—reported by 73 percent—is the library manual, ranging from near-textbooks to flip-tab pamphlets. A useful variant found in a few libraries is a set of handout sheets each describing library tools for a specific subject area.

Required orientation or class visits are not very prevalent or popular. A few colleges—19 percent—offer credit courses in library use. Quite a few—40 percent—use audiovisual techniques for library instruction. Most often mentioned was a slide-tape presentation. Among the more impressive, though uncommon, techniques are: audio-tutorial programs with workbooks, a duplicate card catalog (inherited from a closed branch), and cassette-tape tours.

NEIGHBORS

Junior college libraries reflect reasonably well the community orientation of the parent institutions. Sixty percent of the respondents loan directly to unaffiliated community residents, some on a deposit or annual fee basis. As might be expected, the percent is somewhat higher (68 percent) among those in near-rural locations where they are often the biggest library available. Among those in central cities, only 36 percent loan to outsiders.

Wherever there is a consortium which includes academic libraries, chances are the local junior college will be represented; 44 percent reported such an affiliation. As to specific areas of cooperation with other libraries in their region, 37 percent of the respondents contribute to a union list of serials, 10 percent
to a union catalog of books, 7 percent are in a teletype system, and 8 percent reported shared acquisition or processing.

Being part of a multicampus junior college district does not seem to inspire much more sharing. Of 65 districted colleges in the sample, less than half reported any sort of district-level collaboration beyond interlibrary loan. Only 37 percent reported a union catalog of books and/or serials, and only 31 percent reported district level acquisitions, cataloging and/or processing. Campus libraries are operated autonomously in at least two-thirds of the cases; some of the others reported a district director of libraries, some reported the situation in flux, and some gave ambiguous answers. On many of my visits I sensed an edginess about campus autonomy, a reluctance to get any more involved with sister campuses than necessary—particularly in some big-city districts where the bureaucracy is inevitably heavy. The district system may be useful for raising money, increasing access, and limiting campus size in populous areas, but librarians aren't rushing in great numbers to exploit its other potentials.

**COLLECTION-BUILDING**

As can be expected, the number of volumes per FTE student is a good deal lower in junior college libraries than in academic libraries generally—an average of 19.8 volumes as compared to 51.6. Libraries with at least 70 percent of the students in college-parallel programs have a higher average, 23.4 volumes per FTE student. Enrollment makes a great deal of difference, of course. (See Table 1.)

Median FTE enrollments were identified and average volume per FTE student computed for the seven pacesetter states. Texas and Washington showed ratios somewhat lower than expected for their enrollments: Michigan and New York showed exceptionally high ratios. The private colleges averaged 42.8 per student, appropriate for their median FTE enrollment of 544. (See Table 2.)

<table>
<thead>
<tr>
<th>State</th>
<th>Median FTE</th>
<th>Vols. per FTE Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>5,535</td>
<td>10.2</td>
</tr>
<tr>
<td>New York</td>
<td>3,808</td>
<td>15.0</td>
</tr>
<tr>
<td>Illinois</td>
<td>3,312</td>
<td>12.7</td>
</tr>
<tr>
<td>Florida</td>
<td>2,383</td>
<td>18.1</td>
</tr>
<tr>
<td>Washington</td>
<td>2,316</td>
<td>14.2</td>
</tr>
<tr>
<td>Michigan</td>
<td>2,287</td>
<td>19.7</td>
</tr>
<tr>
<td>Texas</td>
<td>1,135</td>
<td>20.3</td>
</tr>
</tbody>
</table>

Annual growth rate of book collections varies somewhat with age. The median rate is about 10 percent. For colleges and universities generally, the average is 7.7; their median age is of course a lot higher. For schools in the youngest age group, 5 years old or less, the median growth rate is about 15.5 percent. In the next age group it is about 10.5 percent, in the 1941–60 age group it is about 9 percent, and in the oldest group it is about 8 percent. In each age group there are some schools in each growth rate quartile; the youngest age group shows the least amount of spread. New York and Illinois schools show growth rates a bit higher than the norm for their median age group;
Michigan schools are a bit behind in that respect.

Participation of teaching faculty in book selection varies widely; the proportion of books selected by them averages 46 percent. Measures to encourage faculty involvement, such as circulation of *CHOICE* cards and publishers' literature, active library committees, specific liaison assignments for librarians and/or teachers, and frequent reporting, generally seems to pay off. Many librarians find it necessary to cull faculty requests which are too numerous or too high-level. Intangible factors such as personal relationships and general faculty morale have impact here; a high faculty turnover rate seems to hamper faculty-library cooperation.

Departmental book budgets are rare for junior college libraries, reported by only 19 percent; some others allocate informally within the library budget. Slightly over half of the respondents reported 1 percent or more of their books to be student-selected. Less than 10 percent reported routine purchase of currently used textbooks. Very few use approval plans, except for reviewing films. One percent of the collection or less is kept on Reserve by 41 percent of the sample; 14 percent reported keeping over 3 percent on Reserve. A few of the respondents are government document depositories, most but not all of them in near-rural locations. A good many libraries provide popular reading via the McNaughton plan and/or a paperback collection.

In use of book-selection tools, junior college librarians appear to have one foot in each camp, i.e. public and academic libraries. *CHOICE* was the most frequently mentioned as a tool in regular use (85 percent). Next came *Library Journal* (66 percent), *Booklist* (41 percent) and *The New York Times Book Review* (33 percent). Other sources mentioned by over 10 percent of the respondents were Publishers' Weekly, publishers' literature, specialized journals, *Wilson Library Bulletin*, *Saturday Review*, and *Books for Junior College Libraries*. (Tools such as BJCL would no doubt have been more prominent had the sample included the youngest libraries.)

Almost all of the respondents (95 percent) reported the use of jobbers. Some use them for only a small proportion of their purchases, but most use them for the bulk of their purchases (average, 70 percent). In some cases the cataloging and processing are also handled by the jobber. Even among colleges using shared acquisition services, well over half reported using jobbers for 60 percent or more of their purchases.

**Staffing and Service**

Most junior college libraries manage to have a professional on duty during all open hours. As a group, however, they lag behind other academic libraries in ratio of professional staff to students. Academic libraries as a whole average one to 410; junior college libraries average one to 658. If we assume the use of jobbers to be more common in junior colleges, that provides some explanation. Of course junior college libraries also don't need bibliographers, archivists, or subject specialists, as university libraries do. Junior college libraries, on the other hand, are more likely to need media specialists on their staffs. And their students have more need for individual professional help; you can't just point to the catalog and hand them a map.

Again, of course, the ratio varies with school size. The private colleges' ratio of one to 301 fits their median enrollment of 544. (See Table 3.)

Among the pacesetter states, New York, Illinois, and Florida showed relatively favorable ratios with respect to their enrollments; Washington, California, and Michigan were behind the
TABLE 3

<table>
<thead>
<tr>
<th>FTE Enrollment (Approx.)</th>
<th>Median FTE</th>
<th>Student: Prostaff</th>
</tr>
</thead>
<tbody>
<tr>
<td>400-899</td>
<td>650</td>
<td>352:1</td>
</tr>
<tr>
<td>900-1,999</td>
<td>1,450</td>
<td>519:1</td>
</tr>
<tr>
<td>2,000-4,299</td>
<td>3,150</td>
<td>711:1</td>
</tr>
<tr>
<td>4,300 and over</td>
<td>8,750</td>
<td>1,088:1</td>
</tr>
</tbody>
</table>

TABLE 4

<table>
<thead>
<tr>
<th>State</th>
<th>Median FTE</th>
<th>Student: Prostaff</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>5,535</td>
<td>1,312:1</td>
</tr>
<tr>
<td>New York</td>
<td>3,808</td>
<td>552:1</td>
</tr>
<tr>
<td>Illinois</td>
<td>3,312</td>
<td>680:1</td>
</tr>
<tr>
<td>Florida</td>
<td>2,383</td>
<td>507:1</td>
</tr>
<tr>
<td>Washington</td>
<td>2,316</td>
<td>834:1</td>
</tr>
<tr>
<td>Michigan</td>
<td>2,287</td>
<td>728:1</td>
</tr>
<tr>
<td>Texas</td>
<td>1,135</td>
<td>451:1</td>
</tr>
</tbody>
</table>

Almost all the libraries (239) reported employing at least one library professional; on the average they comprise 40 percent of the staff. Thirty-nine percent of the professional librarians have a second master’s degree. The professional librarians generally have faculty status.

Almost half reported a nonlibrary professional on the staff; where present, such comprised on the average 22 percent of the staff. This amounts to an overall average of roughly 10 percent; for academic libraries as a whole the figure is 5 percent.9 The most common role is that of audiovisual specialist, reported by about 43 percent of the respondents employing a nonlibrary professional. (This position is filled by a library professional in 16 percent of the libraries.) Circulation and technical service roles for nonlibrary professionals were each reported by 12 percent of the respondents who employ them.

In colleges which educate paraprofessionals and which do not operate at the highest academic level, one might expect to find library paraprofessionals and indeed 45 percent of the respondents report employing them.10 Where employed, the LTA averages 23 percent of the staff. Use of LTAs probably explains in part the poor professional-to-student ratio. LTAs are often put in charge of circulation or periodicals, positions more likely to be held by professionals in university libraries. Only 17 percent of the junior colleges reported a professional librarian in charge of circulation and only 14 percent reported one in charge of periodicals.

Where LTAs are employed by junior college libraries they have a higher salary level than clerical staff in 80 percent of the cases. As we know, however, acceptance of the LTA varies with locality and librarian. Almost 40 percent of the libraries whose institutions train LTAs do not hire them. The State University of New York provides no LTA salary level, but New York civil service does so de facto with its middle level of “Principal Library Clerk.” Illinois civil service doesn’t even have a de facto salary level for library paraprofessionals. California civil service provides a slot for LTAs, and many California junior college libraries hire them. Probably the best climate for LTA’s is in North Carolina: several junior colleges train them, most hire them, and the civil service recognizes them.

Economic climate can play havoc with the LTA’s status. Where the unemployment rate is high, most librarians seem quite willing to under-employ and will hire college, sometimes even library science, graduates into LTA positions. The same situation may occur in university communities where there are college-educated “captive wives.”11

Audiovisual paraprofessionals, or media technicians, are employed by about 41 percent of the respondents, and where present, account for 14 percent of the staff on the average. Library clerks are almost as sure to be found (88 percent) as professional librarians, and average 44 percent of the staff. All
of the libraries hire student assistants.

From the data there emerges a profile of a prototype junior college library staff serving an FTE enrollment of 2,250. It looks like this: three professional librarians, one with a second master's; one nonlibrary professional for AV services or one library paraprofessional; three library clerks; and one half-time media technician.

The newer junior college libraries generally use microfilm rather than bind back periodicals, or buy microfilm for some and keep others loose for a few years. Many older libraries continue or complement their bound collection with microfilm. Almost one-third of the libraries circulate their unbound periodicals. Some libraries circulate practically anything mobile—not only phonodiscs but cassette tapes and players, art prints, microfiche and readers, even reference books.

Among valuable fringe services common in junior college libraries are typewriters (coin-op or free), photocopy machines, and conference rooms. Some libraries provide calculators in the typing rooms. Some will transfer library audio holdings to a student's own tape. At one, I found a few drafting tables.

Almost all of the libraries are open weekday evenings except Friday. Thirty-five percent report Saturday open hours and 35 percent report Sunday hours, some having both; altogether, 53 percent are open some time on the weekend. Saturday classes are reported for over half of the schools that have Saturday library hours; Sunday classes are very rare. Sunday hours appear to get much more student use than do Saturday hours. Weekend hours are slightly less common than average for central city schools. They are no more common with the 23 percent which have residential facilities except for the private schools; 13 of the 14 private colleges have dormitories and 12 of them have weekend library hours.

There was no formal effort to determine the prevalent classification system used, but interview notes and manuals for part of the sample indicate that roughly two-thirds are using LC. Many of these have switched over from Dewey during the past decade or so; one California librarian observed that the rush to LC seems over now, and many West Coast libraries remain "unconverted." Most of the Washington junior colleges use Dewey. Those in New York's SUNY and CUNY system and in the Chicago system use LC. When asked, most librarians seemed happy with whichever system they have. Those using LC consider it more economical (one library reduced the number of catalogers from 2½ to one after the switch). Those using Dewey consider it more suitable for their students and their collection.

AUTOMATION

Only 27 percent of the respondents have automated one or more of their operations. Half of those are in the largest enrollment group, and the use of automation decreases as school size decreases. Automation was reported most frequently for catalog production (14 in card form, 13 in book form, and two on microfilm). Other areas of automation, in descending order of frequency, are circulation, serials list (sometimes with check-in control), shelflist, acquisitions, various specialized lists, and pocket/label production. In almost half the cases, keypunching or tape-typewriting is done by library staff; in 23 percent of the cases at least some of the programming is done by library staff. Further automation is planned for 53 percent of those reporting automated operations.

WHERE WE STAND

In reporting library operating expenditure as a percentage of total college expenditure, the respondents pro-
duced an average percent of 5.1 percent. For all academic libraries this percent was reported to be 3.8 for the same year (1970-71) in The Bowker Annual and 4.3 for 1968-69 in the HEW Analytic Report. (See Table 5.)

### TABLE 5

<table>
<thead>
<tr>
<th>State</th>
<th>Library Expenditure as Percent of Total Institutional Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>5.9%</td>
</tr>
<tr>
<td>Florida</td>
<td>5.8</td>
</tr>
<tr>
<td>Texas</td>
<td>5.5</td>
</tr>
<tr>
<td>Illinois</td>
<td>5.2</td>
</tr>
<tr>
<td>Michigan</td>
<td>5.2</td>
</tr>
<tr>
<td>New York</td>
<td>3.8</td>
</tr>
<tr>
<td>California</td>
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Two plausible reasons come to mind for the higher percent in junior colleges. One is that a large proportion of them are in their early years when relatively high book budgets are necessary. The other reason is the greater prominence of audiovisual media in junior college libraries.

Although the questionnaire did not cover AV services directly, it is evident from staffing data, unsolicited written comments, and visit notes that at least half of the libraries handle most of their colleges’ AV activities. For those that do so, the average percent of total college expenditures is 5.3 and the average expense per volume acquired is $10.06.  

For the other libraries, the averages are 5 percent and $7.95. An indication that junior college libraries exceed academic libraries generally in audiovisual services is the fact that roughly 10 percent of the academic library “book” budgets are spent on audiovisual materials, whereas in one of the pacesetter states 29 percent of all junior college library materials are nonprint.

As junior college libraries enter the seventies, several observations based on my visits seem relevant. Most libraries provide a variety of audiovisual materials. Many are not as service-oriented as they should be: they tend to be short on professional staff and it was rare to find a staff that seemed always ready to take the initiative with a student who had a “question on his face.”

Many of the libraries that I saw were recently-built. Most seemed attractive, easy to run and easy to use, some were noisy or badly cut up, or had such burdens as two major entrance-exit areas. Many of the host/hostess librarians whom I visited were not only cordial and helpful but seemed energetic, creative, and effective. I was especially impressed with the librarians I encountered in the Northwest. Among other libraries on my itinerary that seemed especially successful were: Macomb-South (Michigan), Monroe (New York), St. Petersburg-Clearwater (Florida), Wilkes (North Carolina), Florissant Valley (Missouri), and San Antonio (Texas).

### Visits

- Monroe County Community College, Monroe, Michigan
- Macomb County Community College, South Campus, Warren, Michigan
- Oakland Community College, Orchard Ridge Campus, Farmington, Michigan
- Schoolcraft College, Livonia, Michigan
- Erie Community College, North Campus, Buffalo, New York
- Monroe Community College, Rochester, New York
- Malcolm X College, Chicago, Illinois
- Wilbur Wright College, Chicago, Illinois
- College of DuPage, Glen Ellyn, Illinois
- Joliet Junior College, Illinois
- Lakeland Community College, Mentor, Ohio
- Lorain Community College, Lorain, Ohio
- Sinclair Community College, Dayton, Ohio
- Community College of Allegheny County, Pittsburgh, Pennsylvania
REFERENCES

1. We won't get hung up on terminology. "Junior" and "community" college are equally common terms; "junior" is shorter.
3. Ibid., Ch. 3.
4. So identified by Medsker & Tillery, p. 22.
5. Because I selected from *Junior College Directory*, which gives founding dates rather than opening dates, I included many that are less than five years old; several responded and were counted.
8. Ibid., In computing the ratio of professional staff to students, I included nonlibrary professionals, defined as people with a college or university degree in a field other than librarianship. If, as seems evident, the Bowker ratio of 1 to 410 excludes nonlibrary professionals, then the junior college ratio is even less favorable by comparison.
10. For this survey they were called “Library Technical Assistant” and were defined as graduates of a two-year college Library Technology program or employees having at least one year of college plus library work experience.
11. The questionnaire defined the minimum qualifications for LTA’s but did not ask about the backgrounds of those on the staff. Interview discussions revealed that many people classed as LTA’s actually had professional qualifications.
12. I asked for the number of (book) volumes added during the past year, and for the “expenditure for books, including nonbook reading and study materials,” for the same year.
ROBERT C. SULLIVAN

Microform Developments Related to Acquisitions

INTRODUCTION

Libraries are spending an increasing amount of money on acquisitions and an expanding portion of these expenditures is for microforms. The current student enrollment in colleges and universities in this country is estimated to exceed six million. The expansion in area studies programs, as well as in the traditional curricula has contributed to the need for increased resources that is being increasingly met by microforms. Perhaps the most important factor contributing to this trend is the Higher Education Act of 1965 which under Title II, Part A, provides funds for the strengthening of college and research library resources. This authorization includes funds for the purchase of microfilms, microfiche, and micro-opaques, and the volume and variety of microforms being made available have grown apace.

The academic library statistics for 1969/70 published by the Association of Research Libraries (ARL) show that there are a total of 34,410,400 microform units in the collections of the seventy-six major United States libraries tabulated. The median total microform units per library for 1969/70 was 412,689 units, an increase of 57,379 units over the median figure reported for 1968/69. Even though a microform unit may vary from a single microfiche, Microcard or Microprint to a full roll of microfilm, an average increase of 57,000 units per year for the larger research libraries represents an impressive volume of microform acquisitions. The largest total number of microform units held was reported by Syracuse University library with a collection consisting of 22,449 reels of microfilm, 203,276 Microcards, 690,678 Microprint sheets and 271,360 microfiche. Boston University library reported 98,598 units, the smallest total number of microform units held; this figure includes 5,920 reels of microfilm.¹

The most widely publicized development in library microforms in recent years has been the microfiche, particularly the ultramicrofiche (UMF). The traditional 35mm roll microfilm, the dominant microform for library consumption for approximately the twenty-five year period between the late '30s and the early '60s, has now been upstaged by the microfiche, usually in the 4"x6" film transparency size. Currently, 16mm roll microfilm is gaining somewhat in popularity, especially in cartridge format in special libraries. Much has been written, particularly in the data processing journals, about the promise of computer output microfilm (COM). At the same time, micropublishing is flourishing with many new firms offering an expanding variety of materials in microform to libraries and educational institutions. For several years, the federal government, through the Office of Education, has been funding microform research, a most welcome and healthy development. Fortunately,

¹ Robert C. Sullivan is chief, Order Division, Library of Congress.
publications about microforms are more numerous than ever before. All of these trends constitute significant developments in the area of library microforms. It behooves the acquisitions librarian to be aware of these changes and to try to interpret them to assist in the acquisition of microforms for his particular library.

**MICROFICHE**

To define our terms, the word "microform" refers mainly to roll microfilm, Microcard, Microprint, and microfiche. To maintain perspective, it should be recognized that there is no one single microform process, size, or format that is best suited for all situations. Each microform has peculiar advantages and disadvantages and should be judged on its merits based on the type of material filmed and the use made of it in a particular situation. One index of the maturity of the microform industry is that these advantages and disadvantages are now well publicized and generally acknowledged. The annual *Guide to Microforms in Print*, lists these factors to assist the buyer in choosing from the variety of microforms available. Generally speaking, roll film is preferred for browsing for material such as a newspaper file. Roll microfilm (35mm at a modest reduction) is best where archival preservation is the primary goal. The unitized format of the Microcard, Microprint, or microfiche lends itself to more direct reference and to situations where mass dissemination is the primary aim. The unitized microform is essentially utilized as a publishing medium rather than a means of preservation.

The ascendancy of microfiche is due largely to its adoption by the federal government for the dissemination of scientific and technical reports by agencies such as AEC, NASA DOD, Department of Commerce (NTIS) and OE. These fiche conform to COSATI specifications in that they are 4"x6" in overall size and employ an 18X-20X reduction. Under the OE ERIC Program alone more than one million microfiche are now disseminated each month. Leasco Inc. has the current contract to produce these microfiche for OE. Librarians may be more familiar with the many advertisements by Encyclopaedia Britannica for their ultramicrofiche (UMF) or "Microbook" process, or with the National Cash Register Company (NCR) advertisements for their Photo-chromic-micro-image (PCMI) process. These processes are different in technical detail but it will suffice to note that the EB fiche is 3"x5" in overall size, the image is reproduced on the fiche at a 55X to 90X reduction, and approximately 90 percent of the titles are filmed on a single fiche. The NCR fiche is 4"x6" in overall size at 100X to 150X reduction, with an average of seven to ten titles per fiche. The bonus to libraries, no matter which of these UMF processes is chosen, is that they have demonstrated the degree to which bibliographical control can and should be made available with microform projects. LC cards are to be provided to subscribers to these series, as well as printed indexes of the contents of each series offered. Thus, a valuable precedent has been set, and librarians should demand this type of complete systems approach to all future micro-publishing projects.

**CARTRIDGE MICROFILM**

Roll microfilm in cartridges or cassettes is increasing in popularity because of the obvious convenience it offers in avoiding the threading of microfilm reading machines, the scanning speed possible in motorized readers, and the attractiveness of using it with reader-printers. Both 35mm and 16mm cartridges are available, but the 16mm size is more popular because the equipment to utilize it was developed earlier, promoted more widely, and the economy of
the smaller-sized film is attractive. Problems militating against the more widespread use of this medium, in addition to the competition offered by other formats, are the relatively higher reduction ratios necessary and the nonstandardization of the cartridges. The U.S. Army is working on a microfilm container standardization project to make the presently most popular containers, of Eastman Kodak, the 3M Company, and Bell & Howell, compatible. The most popular applications for 16mm cartridge microfilm have been the microfilming of library card catalogs and back files of scientific and technical periodicals. Libraries of such diverse sizes as Pennsylvania State University and El Centro College have distributed computer-output-microfilm of their card catalogs in 16mm cartridges to numerous locations on their campuses to assist faculty and student access, as well as to expedite book ordering.

**Computer Output Microfilm**

Computer-Output-Microfilm has received a great deal of publicity in recent years. Although it has had some spectacular applications in business and industry, its impact on the library world has been minimal to date. Like library automation, its actual practical application in libraries is apt to be painfully slow and expensive. The COM technology is undergoing a process of gradual refinement and evolution rather than revolution. A computer microfilm information system is not suitable in a situation where the data base changes rapidly or where user interaction with the data base is required. Just as was the case about ten years ago when a growing number of computer installations gave birth to numerous data processing service companies, we have witnessed a rapid growth in the number of firms offering COM equipment and services. However, this field is suffering acute growing pains with the competition intense, as evidenced by the number of firms that have recently dropped by the wayside, have been gobbled up in corporate mergers, or have severely curtailed their services.

A successful application of COM for student records control is in operation at the University of Wisconsin, Milwaukee campus; it employs a Chicago-based COM service bureau to produce 4"x6" microfiche. These listings of students and their schedules are updated by-weekly in various sequences and formats and are supplied to more than twenty campus locations. Similar applications have been reported in use at Temple University, the University of California at Santa Cruz, the University of Missouri, and the University of Washington. The University of Colorado library at Boulder employs a COM service bureau in Denver to produce a weekly update of its process file which records the status of all materials on order. This film is supplied in 16mm cartridges which can be employed with a reader-printer if a hardcopy reproduction of any order slip is required. COM applications are increasing in number but the technology suffers seriously from lack of standardization. As is unfortunately the case with much microform equipment, one COM device or system is not compatible with another, much less with existing microform equipment generally found in libraries. Librarians should approach COM with cautious optimism and only after careful analysis of all options possible and evaluation of all of the cost factors involved.

**Micropublishing**

Micropublishing is flourishing, as is amply evidenced by the volume and variety of advertisements in library literature. The Department of Commerce published a pamphlet in 1969 entitled *Microforms: A Growth Industry* which estimated current micropublishing sales
volume in this country to be $25 million a year, with a 10 percent to 15 percent annual increase predicted. EB alone is reported to have invested more than $6 million in launching its first "Microbook" series entitled The Library of American Civilization. As an indication of the growth of the industry in recent years, NCR acquired the Microcard Corporation and launched its own UMF (PCMI) series on American Civilization. The Bell & Howell Company acquired the firm of Micro-Photo and relocated it in Wooster, Ohio. The Xerox Corporation acquired University Micromedia, Inc. of Ann Arbor, Michigan, and more recently the New York Times acquired the Microfilming Corporation of America. Reprint publishers such as Greenwood Publishing Corporation and AMS Press have created microform divisions. The 3M Company, IM Press has a contract with New York Public Library and NCR's Micro Photo Division has a contract with the Newberry Library in Chicago. New firms and new services are offered with each passing month.

The expanded utilization of microforms in the federal government continues with the applications at the Social Security Administration, Census Bureau, and the Patent Office being prime examples. Most newsworthy perhaps is the announcement late in 1970 by A. N. Spence, the Public Printer, that the Government Printing Office is exploring the possibilities for converting all publications listed in the GOP Monthly Catalog to microform. The potential impact of converting such a large number of publications to microform, particularly on depository libraries, is sizeable. The information available thus far suggests that microfiche at a 48X reduction is receiving favorable consideration. However, all that is known for certain is that GPO will actively investigate the adoption of some microform program in the near future. The technical and bibliographical standards agreed upon for such a program could help stabilize the present chaotic situation where a multitude of microform formats and reduction ratios are employed. Several standards very likely will have to be accepted because of the variations in the sizes and styles of government publications.

Allen Veaner's chapter on micropublication in Volume 2 of the Advances in Librarianship Series gives particular attention to the problems of acquiring, controlling, and servicing microtexts in libraries. This survey of the state-of-the-art of micropublishing provides excellent background information for the acquisitions librarian.

Cooperative Projects

The most noteworthy cooperative microform projects are those operated under Association of Research Libraries (ARL) sponsorship such as the Foreign Newspaper Microfilm Project, the Center for Chinese Research Materials, and the Slavic Bibliographic and Documentation Center. The Foreign Newspaper Microfilm Project is operated by the Center for Research Libraries (CRL) with most of the actual filming being done at the University of Chicago Library photoduplication department; its purpose is to subscribe to a list of more than 100 top priority foreign newspapers that are not regularly available from reliable sources, commercial or noncommercial, to regularly film them, and to sell positive prints to subscribing libraries as economically as possible. Participants in the project pay an annual membership fee in addition to a flat rate for each foot of positive microfilm supplied.

The Chinese and the Slavic Centers are located at ARL headquarters in Washington, D.C.; their purpose is to collect and disseminate information on fugitive Chinese and Slavic research publications, including a limited num-
The ARL was also instrumental in establishing the Official Gazettes Microfilming Program at the New York Public Library (NYPL) in 1958. In cooperation with the United Nations Library, NYPL regularly films the national and local official gazettes of foreign countries; a list of more than 300 gazettes filmed, generally from 1958 to date, is published by NYPL. An exception to the NYPL project is that the official national and local government gazettes of India, Pakistan, Ceylon, and Nepal are filmed in New Delhi for the Library of Congress.

Additional cooperative microform projects sponsored by CRL are the Cooperative African Microform Project (CAMP) and the South Asian Microform Project (SAMP). CAMP was formed in 1963, as a result of discussions in meetings of the African Studies Association, to acquire microforms of Africana selected by the sixteen participants in this country, Canada, France, and Africa. SAMP was developed in 1967 at the request of members of the Association of Asian Studies; its purpose is to create and maintain, for the common use of the subscribing libraries, a readily accessible collection of back-files of nineteenth and twentieth century newspapers, periodicals, and documents relating to South Asia that are unobtainable in this country. Each library subscribing to this project pays an annual subscription fee based on the size of its book budget.

**Research**

More than three-quarters of a million dollars has been provided by the Office of Education (OE) to underwrite research relating to library microforms in the past four years. The major research projects undertaken, some portions of which are still in progress, have been the following:

**Association of Research Libraries (ARL)**

The original grant to ARL for FY 1969 was for a Determination of User Needs and Future Requirements for a Systems Approach to Microform Technology, with Donald C. Holmes as principal investigator. The report for this initial project in the summer of 1969 contained nine recommendations for further study. Funding for this project was continued into FY 1970 but the mission was divided into two parts: Part I, with Donald C. Holmes as principal investigator, was for a Determination of the Environmental Conditions Required in a Library for the Effective Utilization of Microforms. Part II, with Felix Reichmann as the investigator, was devoted to the Determination of an Effective System of Bibliographic Control of Microform Publications. Again, the funding to ARL was renewed and for FY 1971 the project is continuing in two parts: Part I, with Edward Miller as the investigator, is pursuing Holmes' first recommendation in the initial report that a permanent, national microform organization or agency be established; Part II continues the Reichmann study to make final recommendations for the bibliographic control of microform publications on the local, national, and international levels. Establishment of a national microform agency to promote and police standards would be a great boon to libraries and we hope that this recommendation can be implemented soon. One of the recommendations in Reichmann's preliminary report is that published papers should urge library administrators to assign adequate manpower to the processing and servicing of microforms. I would add emphasis to the word "adequate."
Denver Research Institute (DRI)

The original grant to DRI at the University of Denver, also for FY 1969, authorized a study of the Characteristics of Ultramicrofiche and Their Application to Colleges and Universities, to be conducted by James P. Kottenstette. One of the five major conclusions reached was that UMF is economically attractive for the creation of "core" library collections and can be utilized to create information systems of great value to the student. Another finding was that no "best" reduction ratio can be identified for the UMF, either on a cost or operational basis, and that it is the responsibility of the market place to judge the system that responds best to particular needs in education. Funding for this project was authorized for FY 1970 for a study entitled An Investigation of the Environment for Educational Microform Utilization, this segment of the research was subdivided into classroom studies and a carrel design study. Preliminary findings showed that students prefer to be able to adjust the angle of the reading screen on a microform reader and to be able to adjust their own reading position, just as they would if they were reading a hard copy book. Also, it was found that students better tolerate microforms and associated equipment if the material to be viewed on film is assigned or required reading rather than review or leisure reading. This project culminated at the University of Denver Conference on Microform Utilization in the Academic Library Environment which was held on December 7-9, 1970. One recommendation of the conference was that greater consideration be given by microform equipment manufacturers to the needs and comfort of the user. Another recommendation was that libraries fully support the LC National Register of Microform Masters to promote bibliographic control of microforms and that micropublishers be urged to provide full bibliographical control with their future microform projects.

American Association of Junior Colleges (AAJC)

Phase I of this four phase project was launched in March 1969 for a study entitled Determination of Student Acceptability and Learning Effectiveness of Microform Collections in Community Junior Colleges. Bibliographies were compiled for courses in Art appreciation, Black studies, Economics, English, Life science, Mathematics, Nursing, Political science, Psychology, and Spanish. A research design was developed to measure the acceptability and effectiveness of microform collections for courses common to junior colleges. Phase II for 1970/71 consisted of several pilot studies in junior colleges in the Washington, D.C. area. Phase III for 1971/73 will consist of a two-year field test and Phase IV for 1973/74 will include the analysis, reporting, and interpretation of the data collected throughout the study. The findings of this study will most likely provide a further stimulus to the micropublishing industry which in turn will expand the statistics on the acquisition of microforms in libraries.

Publications: Basic Collection

Essential to the effective performance of any library technical service unit is the assembly and intelligent utilization of a basic reference collection and the tools of the trade. For microforms these reference tools are not as plentiful nor as comprehensive as one would like, but fortunately the choice is widening. The literature of microreproduction for the years 1950 through 1955 is documented in a bibliography compiled by Lester K. Born which appeared in American Documentation, similar literature for the years 1956 through 1966 appeared in Special Libraries in a series of bibliog-
raphies compiled by Loretta J. Keirsky. This literature is predominantly commercially or technically oriented rather than bibliographically or library oriented. Surprisingly little has been written on microforms from the point of view of the acquisitions librarian.

The most valuable general background articles are contained in the following issues of Library Trends: The April 1955 issue devoted to current acquisition trends in American libraries, the January 1960 issue devoted to photoduplication in libraries, and the January 1970 issue devoted to the problems of acquisition for research libraries. Roma Gregory's article on the acquisition of microforms in the latter issue of Library Trends is the most current and relevant article on this subject. A very helpful article by Albert Diaz on what is available in microform and where to find it appeared in the Spring 1967 issue of Library Resources and Technical Services.

To keep abreast of developments relating to library microforms, the annual review articles in LRTS that have appeared since 1957 should be consulted. The bibliographies that appear at the end of these articles since 1967 are especially valuable since the Keirsky bibliographies cited earlier only extend through the year 1966. It is encouraging that the ERIC Clearinghouse for Library and Information Science has promised to investigate the possibility of continuing these bibliographies on the reproduction of documentary information through 1971 and publishing them annually in the future.

In addition to Library Resources and Technical Services, articles on microforms appear frequently in most of the library periodicals such as College & Research Libraries, Special Libraries, American Libraries, ASIS Journal, Publisher's Weekly, Unesco Bulletin for Libraries, Wilson Library Bulletin, etc. The advertisements for microforms in these journals are particularly informative with regard to new acquisition sources. Specialized library journals frequently contain articles of interest. For example, the February 1970 issue of Law Library Journal contains a good article entitled "Acquisition of Microforms in Law Libraries."

Micrographics Weekly, which commenced publication in mid-1970, has emerged as a significant source of prompt information about the microform industry and micropublishing. It reviews new developments and evidences the awareness of the interest of libraries and educational institutions in microforms. The monthly Information and Records Management periodical also contains a wealth of information on microfilm and its applications.

Obviously, membership in the American Library Association, Resources and Technical Services Division, Reproduction of Library Materials and/or Acquisitions Sections, and participation in their activities is a primary means of keeping informed. The same is true of the Special Libraries Association and the American Society for Information Science, if the membership dues can be mustered. Next on the priority list of memberships is the National Microfilm Association (NMA). Included in NMA membership are subscriptions to the bimonthly The Journal of Micrographics, the monthly Micro-News Bulletin, the quarterly International Micrographic Congress Journal, and the annual Proceedings of the NMA Conventions. Increasing appreciation of the library and education market is being reflected in the content of these NMA publications; acquisitions librarians will labor under a handicap if they do not have access to this NMA literature to facilitate an understanding of the micrographics industry. For example, the January 1971 issue of The Journal of Micrographics featured a series of articles on microform utilization in libraries and ed-
ucational institutions. NMA also publishes a valuable reference tool for an understanding of the equipment available for the utilization of microforms in Hubbard Ballou's *Guide to Microreproduction Equipment* (1968), which is now in its fourth edition.\(^2\) The 1970 supplement to the *Guide* lists over 137 new pieces of equipment in 250 pages.\(^2\) A companion volume, also available from NMA, is the *International Directory of Micrographic Equipment* (1967).\(^3\) The NMA *Glossary of Microfilm Terms* is also a helpful reference tool for interpreting offers from and drafting correspondence to micropublishers or other sources of microforms.\(^4\)

A reference tool that is essential for inclusion in the ready reference collection of every acquisitions librarian is ALA's *Copying Methods Manual* (1966).\(^5\) This is an invaluable source for gaining an understanding of the various photographic processes, methods, and techniques, and contains a wealth of information relevant to the acquisition of photo reproductions by libraries. The relevance and utility of this manual is no accident since the author was at one time the head of the Photoduplication Service at the University of California Library and Berkeley and has authored countless reports for ALA's Library Technology Program. The bi-monthly *Library Technology Reports* are also a valuable source of information about new microfilm equipment services and related products.\(^6\) The acquisitions librarian cannot intelligently discharge his other responsibilities without an understanding of the equipment to be employed in servicing the microforms acquired.

**SEARCHING—BIBLIOGRAPHICAL CONTROL**

The above suggestions for a basic reference collection for maintaining current awareness will not equip the acquisitions librarian for the necessary negotiations or the preparation of requests and orders. After the general background literature has been assembled and digested, the librarian must determine what material is needed and/or available for acquisition, or decide where to acquire what has already been recommended for acquisition. Unfortunately, the bibliographical control of microforms has not received the attention and support it deserves. The proliferation of microforms produced and acquired by libraries has far outstripped the capacity of libraries to catalog and record their location internally, much less to report holdings to a central source.

The need expressed in the series of articles in the January 1960 issue of *Library Trends*, devoted to photoduplication in libraries, for a *Microforms in Print* catalog no doubt encouraged the publication the following year of the first issue of the *Guide to Microforms in Print*. This bibliography is described by the publisher as an "annual cumulative guide, in alphabetic order, to books, journals, and other materials, which are available on microfilm and other microforms from United States publishers. Theses and dissertations are not listed. The *Guide* lists the offerings of fifty-six micropublishers and contains more than 18,000 titles; some of these entries are for entire collections but the majority are for newspapers and periodicals. A companion volume *Subject Guide to Microforms in Print* lists the same entries under broad subject classifications.\(^7\)

The pleas and planning of the library community for bibliographical control of the rapidly mounting number of microforms, best illustrated by the 1960 *Library Trends* article by Schwegmann, culminated in 1965 in a grant by the Council on Library Resources Inc. to the Library of Congress to establish the *National Register of Microform Masters* (NRMM).\(^8\) As indicated in the
introduction: “The Register has two basic purposes. One is to provide a complete national register of microform masters from which libraries may acquire prints when needed and thus avoid the expense of unnecessarily making another master. The other purpose is to help libraries assure the preservation of our intellectual heritage by identifying those microform masters that meet the requirements for such preservation.” The Register is concerned only with master copies, which are defined as those which are held solely for the purpose of making further copies. For the purposes envisioned by the Register, single copies from the master must be made available at any time and for a reasonable fee. The Register also includes a second category of masters which, in addition to meeting the foregoing requirements, are housed in temperature controlled, fireproof space and are owned by a responsible, nonprofit institution. The Register includes foreign and domestic books, pamphlets, serials, and foreign doctoral dissertations; it does not include newspapers, technical reports, typescript translations, foreign or domestic archival manuscript collections, or U.S. doctoral dissertations or master’s theses.

The first issues of the published Register, uniform in format with the other Library of Congress catalogs and provided free to subscribers to the National Union Catalog, were published in September 1965 and January 1966. Annual cumulations have been published for 1966 through 1969. The 1969 issue of the Register contains only serials listed alphabetically by main entry; it does not supersede the 1966–1968 issues which are to be used to locate entries for monographs. It supersedes and cumulates the more than 14,000 entries for serials included in all previous issues.

Fuller descriptions of the NRMM are contained in articles by Applebaum and Blum. The fact that the Register is a union list which emphasizes the “master” preservation negatives in libraries and excludes newspapers distinguishes it from the Guide. Libraries are urged to report holdings of master negatives to make the NRMM as complete as possible. The need for such complete reporting was recognized by both the Reichmann study and the Denver Conference mentioned earlier.

Since the NRMM editions do not include any of the newspaper entries listed in the sixth edition (1967) of Newspapers on Microfilm (NOM), now published by the Catalog Publication Division of the Library of Congress, librarians should continue to consult NOM to search for U.S. holdings of microfilm of domestic and foreign newspapers. Reference should also be made to the Microfilm Clearinghouse Bulletin for which eighty-six numbers have been issued since 1951 as supplements to the Library of Congress Information Bulletin. Another source for microforms is the series of approximately 180 announcements of research materials filmed at the Library of Congress since 1965; these circulars are available from the Photoduplication Service of LC.

Many microform projects combine the copying of published and unpublished documents. The Center for the Coordination of Foreign Manuscript Copying, formerly located in the Manuscript Division of the Library of Congress, was established in 1965 to coordinate photocopying projects conducted in foreign archives and libraries by American institutions and individuals to avoid duplication of effort and expense through cooperative planning. Further purposes of the center were to record the location of copies of foreign collections in this country, in the National Union Catalog of Manuscript Collections, eight volumes of which (describing 25,145 collections) have been published since 1962, and to disseminate information to the scholarly community.
Beginning in the spring of 1967, the center published seven reports which appeared as semiannual issues of News From the Center. These issues of the News included lists of recently complete photocopying projects and bibliographical lists relating to foreign manuscript collections in the United States and to manuscript collections in Western Europe, Asia, the Pacific area, France, and Latin America. The center has now been closed, but answers to questions in this area, or copies of issues of the News, can be obtained from the Manuscript Division, Library of Congress.

The 1967 Diaz article, referred to earlier, also relates the first attempt to list microfilms by the publication in 1942 of the Union List of Microfilms, with a cumulative edition in 1951 and a supplementary and final cumulation for 1949–1959 published in 1961. A Union List of Publications in Opaque Microform also was published in 1959, with a 1961 supplement and a 1965 revised edition. These volumes of the various versions of a Union List, together with the Guide, NOM and NRMM, are essential reference tools for searching to determine availability of publications in microform. The Union List volumes exclude newspapers, dissertations, and a number of specialized series.

In addition to searching the standard bibliographies already cited and scanning the currently published journals for advertisements and announcements, the obvious approach to discovering new micropublications is to write to all micropublishers and ask to be added to their mailing list to receive all catalogs and announcements. Some of the major micropublishers such as University Microfilms and Micro Photo publish newsletters which are helpful in keeping posted on what is available and what is planned. The best single source of names and addresses of micropublishers is contained in the Guide to Microforms in Print. However, this list is not exhaustive and should be supplemented by names and addresses identified in scanning the literature.

Frequently overlooked sources for library microforms are the numerous libraries listed in the Directory of Institutional Photocopying Services compiled by Cosby Brinkley. Librarians all too often equate microforms with commercial producers and neglect library producers. The Directory is now in its fourth edition and lists 151 libraries with “significant facilities” for photocopying. Many of the libraries listed have sizeable stores of master negative microfilms from which positive copies can be purchased at reasonable rates.

Librarians have to decide whether to purchase a copy of an existing microform or to order one prepared to their specifications. Obviously, it is much less expensive to purchase a print from an existing microform, when the cost of the master negative has already been paid, than to pay the full cost of preparing the negative. Service is also much faster when only a print needs to be made from an existing negative.

If an order is to be directed to one of the libraries listed in the Directory, a search should first be made to determine whether the library holds the original of the item required. This is increasingly more possible with the publication of the printed volumes of the National Union Catalog, Pre-1956 Imprints. A total of 124 volumes have been published to date, covering the alphabet to “Counihan,” with the exception of volume 53–56, which have been reserved for Bible entries and will be published later. Editing of the letter “E” has been completed, representing more than a fourth of the total catalog.

Free cost estimates for photocopying are available from many libraries. For instance, the Library of Congress provides this service; it holds an extensive collection of master negative microfilm and is adding more than 8,000 reels each
year to this collection. Other large stores of master negative microfilm are contained in the holdings of the New York Public Library, the University of Chicago library, and the Hoover Institution.

Examination of prospectuses and announcements should be made with great care to determine whether the microform advertised is actually available. Unfortunately, some advertisements still appear that do not state when the microforms will be completed and actual delivery will be made. To avoid the pitfall of encumbering funds that might lapse, careful inquiry should be made to determine whether the master negative microform exists and what the delivery schedule is for distribution copies.

Announcements should be scanned to determine such vital factors as the film format or internal and external dimensions of the microform, the reduction ratio and position of the images, the polarity (negative or positive), generation (whether printed directly from a master negative), and film stock (whether silver emulsion, diazo, or vesicular film). Preferably, samples should be obtained for examination prior to ordering. If possible, a cost quotation should be secured before an actual order is issued. If a cost estimate is made, care should be taken to provide for added costs such as reels and boxes, mailing, minimum charges per item or order, special handling, etc. It is particularly important to determine before an order is issued whether the file filmed was complete. If possible, a list of any missing or mutilated issues should be secured to permit evaluation of the bibliographical integrity of the filmed file. It also should be determined whether the material filmed was tightly bound resulting in any loss or distortion of text in the gutters of the spines of the volumes. The availability of printed cards and/or of published indexes, lists, or guides to the material filmed should also be determined. Added items to ascertain are whether returns are acceptable and what payment schedule is permissible.

Standards that should be included in the acquisitions librarians ready reference collection and which may be cited in the specification of order include ALA’s Microfilm Norms, Specifications for Library of Congress Microfilming, the (COSATI) Federal Microfiche Standards, and NNSI’s Specifications for Microfiches (PH5.9).46-49 These publications refer to ANSI, NMA, and other photographic standards.

**ORDERING**

Standard library purchase requisition or request forms are insufficient for microforms; the specifications of order should be complete and precise in detail to avoid misunderstanding. Not only should the bibliographical citation be complete, but the order should specify such vital factors as the format, reduction, position, polarity, generation, film stock, background or integrated density, and hypo residue. Libraries should take care to develop their own general specifications for acquiring microforms or should specify that the microform conform to Microform Norms, Specifications for Library of Congress Microfilming or other published specifications. Any special targets required should be clearly explained and preferably should be supplied with the order. If the film ordered is to be spliced into existing film, the order should state the spacing needed on the film between nonconsecutive issues, etc. If the film is to be utilized for Xerox Copyflo printing then the order should clearly state this requirement. How should microforms be ordered? Carefully.

**ACCESSIONING**

The need for the inspection of delivered microforms is frequently ignored or given too little attention in li-
libraries. If the specifications of order are carefully defined then the determination of whether the product delivered actually conforms to these specifications should be equally detailed. Fortunately, librarians now have a detailed guide to follow in performing this evaluation. The Library Technology Program has published *The Evaluation of Micropublications: A Handbook for Librarians* by Allen B. Veaner. The Veaner handbook is based on an article in the June 1968 issue of the ACRL book review publication *CHOICE* entitled “The Crisis in Micropublication,” as well as two additional articles later the same year. With the support of ALA’s Library Technology Program, and utilizing the procedures set forth in the *Handbook*, the editorial board of *CHOICE* has agreed to cooperate with the Micropublishing Subcommittee of ALA in regularly publishing reviews of micropublishing projects, just as is now done for books. These reviews, to be published in *CHOICE*, will be invaluable to acquisitions librarians in making intelligent selections of micropublications. Sections of the handbook are devoted to the micropublishing industry and procedures for the evaluation of micropublications on the basis of bibliographical, administrative, and technical criteria. An excellent bibliography appears at the end of this indispensable work.

### References

The Evaluation of Campus Library Document Delivery Service

A campus delivery service is one way to increase accessibility of library materials. This report provides an overview of such a service, evaluates its performance, notes the economic implications, and concludes that the service can solve some of the problems of decentralized collections.

How effective are academic libraries as service agencies? It is a question for which there are no pat answers. Many factors can affect service: the geographical organization of a campus, the organization of the library system, the attitudes of the teaching faculty, library faculty and the administration, the size of the collection. However, it is probably safe to assume that most university libraries are under-utilized. Although the library is often labeled the heart of a university, it is more likely to function as an instructional appendage.

Do researchers turn to the library when they need information? It is well known that many researchers have developed alternate communication channels which for them are more responsive. In general, researchers secure information from the sources most convenient to them. In 1963 Slater found that the distance from a researcher’s office to his technical library influenced his use of that library. Allen and Rosenberg found that information channels are selected on the basis of ease of use and accessibility rather than on the amount of information those channels are expected to generate. Robert Taylor has stated that a system which provides easier access, specifically physical convenience, will be more effective than a system which is concerned only with the quality of the scheme of subject organization. C. Walter Stone suggested that in the long run it may prove more effective and efficient to move information to people rather than move people to information. If ease and convenience are such potent influences on a user’s behavior, then why not develop mechanisms to improve the ease to which a library’s rich resources can be accessed?

A campus delivery service is one way to increase the accessibility of documents. A delivery service could enable a faculty member to telephone from his office for a specific item. The library could respond by retrieving the item from the stacks, checking it out, and delivering it either to the requestor’s departmental office or directly to his office. This paper analyzes a document delivery service introduced at the University of Colorado; who used it, why it was used, the level of performance achieved, and the attitudes of users toward this innovative service.
OVERVIEW OF THE FACULTY
DOCUMENT DELIVERY SERVICE

On January 22, 1969 the library announced that commencing February 1, a library document delivery service for faculty, academic support staff and administrators would be inaugurated. Faculty members were informed that the experimental service was being tried in an effort to counter the difficulties of using the university’s decentralized library system. The faculty document delivery service (FDDS) would be an attempt to reduce the frustrations experienced by researchers in locating materials. One day service was to be the objective.\(^5\)

The announcement further described the system: To obtain an item from the library, a requestor merely telephones the Circulation Department, using a special number, and provides the library assistant with whatever bibliographical information he or she has. The library staff member fills out all the necessary forms and delivers the item to the requestor’s own office or departmental office, whichever location is specified. A special form is used to notify requestors when delivery of an item is delayed or undeliverable. A telephone recording device was available to accept requests when the office was not manned.

After six weeks, the director of libraries circulated a second memorandum reporting the initial user reaction to FDDS.\(^6\) Ninety-four different faculty members had requested 502 items of which 380 were delivered, representing a 76 percent success. Of the 122 items not delivered, 19 were noncirculating titles, 21 were in circulation at the time the request was received, 34 items were not owned, and 22 requests were for items currently on order. Only 26 items could not be accounted for, which represented only 5.2 percent of the total requests processed.

Although FDDS proved to be an immediate success, the success was based on a great deal of careful preliminary planning. When the service was first proposed, staff reactions were generally favorable. However, there were fears that the service might prove to be an embarrassment because the library was not staffed to handle a large volume of requests. A contingency plan was formulated (although never used) so that additional staff could be assigned if the demand warranted.

Some staff members expressed reservations with the staffing patterns proposed by the administration. The FDDS was to be administered by a nonprofessional assisted by a clerk and student assistant. They felt that the FDDS would require professional expertise to decipher, com-

<table>
<thead>
<tr>
<th>Rank/Status</th>
<th>Total No.</th>
<th>Total %</th>
<th>Respondents No.</th>
<th>Respondents %</th>
<th>Nonrespondents No.</th>
<th>Nonrespondents %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>95</td>
<td>25</td>
<td>62</td>
<td>30</td>
<td>33</td>
<td>20</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>60</td>
<td>16</td>
<td>45</td>
<td>22</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Assistant Professor</td>
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<td>26</td>
<td>62</td>
<td>30</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>Instructor</td>
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<td>9</td>
<td>14</td>
<td>7</td>
<td>21</td>
<td>12</td>
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<td>Librarians</td>
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<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teaching Assistants</td>
<td>22</td>
<td>6</td>
<td>7</td>
<td>3</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Research Assistants</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>17</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>20</td>
<td>12</td>
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<tr>
<td>Students</td>
<td>30</td>
<td>8</td>
<td>10</td>
<td>4</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Administration &amp; Support Staff</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Visiting Faculty</td>
<td>11</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>No Answer</td>
<td>11</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Totals</td>
<td>377</td>
<td>100</td>
<td>208</td>
<td>100</td>
<td>169</td>
<td>100</td>
</tr>
</tbody>
</table>
plete, or correct inaccurate bibliographical citations. But without actual experience one could only speculate on the question. (Experience proved that very few submitted citations were garbled.)

A few key university administrators opined that the proposed service was tantamount to intellectual spoonfeeding. "Aren't faculty and students supposed to be able to use the library themselves?" is how they expressed the traditional view. The expenditure of funds to retrieve and deliver materials did not carry a very high priority. Fortunately two administrators perceived the FDDS as a possible strategy to lessen frustrations associated with using a decentralized library system. The latter view prevailed and it was decided to offer the service on an experimental basis.

Users of the FDDS were broadly representative of the university community. A breakdown of ranks and university status is summarized in Table 1. Teaching faculty comprised 79 percent of the total user population. During the first eighteen months over 33 percent of the faculty requested materials at least once.

Researchers from the humanistic and social science disciplines comprised 46 percent of the users. This was significant since some had doubted that the FDDS would be attractive to humanists due to a supposed preference for browsing. Researchers appointed to interdisciplinary institutes comprised 13 percent of the users. One conclusion gleaned from the first year's experience was that a campus document delivery service will attract a broad base of support.

Secretaries and other support staff often serve as the researcher's library surrogate. Almost 40 percent of the faculty delegated all or part of their FDDS transactions to secretaries (Table 2). Some faculty assigned their FDDS business to graduate assistants; unfortunately, the questionnaire erroneously listed "graduate assistant" as "graduate department." Consequently use by graduate assistants is not accurately reflected in the results. Senior faculty are more likely to have assistants who can search and retrieve library materials. While not surprising, the pattern suggests that junior faculty may be more conversant with the library and its problems.

It would be wise if we librarians recognized that the reputation of our libraries rests largely with the successes and failures experienced by secretaries and assistants. The faculty as a group may comprise our most sophisticated users, but we know that many of them are not effective library users. One recently-completed study identified many faculty who were unaware of basic library services such as reference and interlibrary loan; some did not understand the purpose of a union catalog; and others could not differentiate between a card catalog and a computer produced book catalog. If the faculty become frustrated in their attempts to use a library, can we realistically expect their secretaries to fare better? The data indicates that some programs of library orientation and instruction might usefully be directed at those secretaries and graduate assistants who must use the library.

In the first year, 2,868 items were requested through the FDDS, while 3,600 items were picked up and returned to the library. Use summarized by month is presented in Table 3. The pattern of use approximates the academic calendar,
with the line increasing gradually throughout the fall, and the low point occurring during the months of July and August.

During the first half of the second year, 1,622 items were requested, a 95 percent increase over the first six months of the initial year, averaging 324 items compared to 166 items per month. Although 324 items comprised only a miniscule proportion of the total library circulation, the impact of the FDDS could not be judged solely on the volume of use.

Another measure of utility is the proportion of repeat users. Of the 377 users, 52 percent were repeaters. Furthermore, 54 percent of those who responded to an attitude questionnaire noted that the availability of the FDDS had altered their library use patterns.

**TABLE 3**

**FACULTY DOCUMENT DELIVERY TRANSACTIONS BY MONTH**

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb.</td>
<td>350</td>
</tr>
<tr>
<td>Mar.</td>
<td>275</td>
</tr>
<tr>
<td>Apr.</td>
<td>235</td>
</tr>
<tr>
<td>May</td>
<td>185</td>
</tr>
<tr>
<td>June</td>
<td>102</td>
</tr>
<tr>
<td>July</td>
<td>50</td>
</tr>
<tr>
<td>Aug.</td>
<td>50</td>
</tr>
<tr>
<td>Sept.</td>
<td>350</td>
</tr>
<tr>
<td>Oct.</td>
<td>250</td>
</tr>
<tr>
<td>Nov.</td>
<td>225</td>
</tr>
<tr>
<td>Dec.</td>
<td>150</td>
</tr>
<tr>
<td>Jan.</td>
<td>400</td>
</tr>
</tbody>
</table>

**PERFORMANCE OF THE FACULTY DELIVERY SERVICE**

At the outset it was not known how effectively and rapidly the FDDS could respond to specific requests for material. Pessimism was not unusual, for many on the staff had been conditioned by comments from users such as:

"Oh, I can expect to locate only about half the items I'm looking for...."

"I can never find anything I really need...."

"Nothing you ever want is properly shelved...."

This mental set in part accounted for the initial trepidations cited earlier. Fortunately neither the skepticism nor the pessimism lingered long.

Requests were satisfied at a level which far exceeded all expectations. During the first year, 69 percent (3,083
TABLE 4
DISPOSITION OF FDDS REQUESTS WITHIN 23 HOURS OF RECEIPT

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivered</td>
<td>69%</td>
</tr>
<tr>
<td>Noncirculating</td>
<td>5%</td>
</tr>
<tr>
<td>Call-ins</td>
<td>12%</td>
</tr>
<tr>
<td>Do not own</td>
<td>8%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2%</td>
</tr>
<tr>
<td>Trace</td>
<td>4%</td>
</tr>
</tbody>
</table>

Items were delivered within one working day; 12 percent were delivered later (Table 4). Five percent of the items which could not be delivered were non-circulating items, 8 percent were items not owned (they were requested later through interlibrary loan), 2 percent were items on order but not yet received. Only 4 percent of the items requested were listed in the card catalog but could not be located. In other words, four out of five items were retrieved and delivered.

Users were asked to rate the speed of the FDDS on a five-step scale from slow to fast. The results clearly reflected a general satisfaction. A chi-square test was employed to determine if the responses deviated significantly from a distribution of random responses. The test revealed a significance $X^2 = 199.97$ (df = 4) at a .005 level of significance (Table 5).

Comments appended to several returned questionnaires clearly revealed some of the users' views:

"Expeditious."

"FDDS is so fast I don't know how you do it."

"The service was fast 90 percent of the time."

Or best of all:

"The service is very fast . . . but don't get complacent!"

The effectiveness of follow-up procedures designed to locate and deliver items which could not be delivered im-
mediately was an important feature. Forty-two percent of the respondents indicated that the follow-up services were excellent and 31 percent reported that they were good (Table 6). Some respondents however did not understand the implications of the question; in fact 20 percent even admitted their ignorance. How many faculty know precisely what is meant by the terms “trace,” “call-in,” “notice,” etc.? The observed pattern of responses underscores the need for more intensive publicity to explain what is meant by a follow-up service.

TABLE 6
RATING OF THE FDDS FOLLOW-UP PROCEDURES (CALL-INS, TRACES, NOTICES, ETC.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>88</td>
<td>42</td>
</tr>
<tr>
<td>Good</td>
<td>64</td>
<td>31</td>
</tr>
<tr>
<td>Fair</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>100</td>
</tr>
</tbody>
</table>

In the fall of 1970 a questionnaire was prepared and distributed to all recorded users of the FDDS. The survey was designed to elicit reactions to the service, its performance, and the priority users might assign to the FDDS during a time of tight budgets. The survey also generated the data presented earlier in this paper. The questionnaire was brief, consisting of only nine closed-end questions. A little space was allotted for additional comments. The questionnaire was distributed by mail with no follow-ups.

The response rate was 55 percent. Oppenheim has stated that a 40 to 60 percent response to a mail questionnaire is typical. In order to minimize the possibility of undetected biases, respondents and nonrespondents were compared in several ways to examine for possible differences between the two groups.

 Resident teaching faculty comprised 67 percent of all FDDS users, while 94 percent of the respondents were teaching faculty (see Table 1). Administrators and university support staff were much less responsive to the questionnaire than their academic colleagues. Only one visiting faculty member out of seventeen responded. Also, very few teaching assistants and graduate assistants responded, partly because many were no longer on campus at the time the questionnaire was distributed. If administrators and visitors had been excluded from the user population, the overall faculty response would have equaled 63 percent. Since teaching and research faculty comprised the principal target group, the rate was judged adequate.

A comparison by broad discipline between respondents and nonrespondents also shows considerable similarity. Some divergence for humanists and social sci-

TABLE 7
USERS OF THE FDDS: ANALYSIS BY BROAD SUBJECT DISCIPLINES

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Total Frequency</th>
<th>Respondents Frequency</th>
<th>Nonrespondents Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>89 23%</td>
<td>41 20%</td>
<td>48 28%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>86 23%</td>
<td>59 28%</td>
<td>27 16%</td>
</tr>
<tr>
<td>Pure Sciences</td>
<td>56 15%</td>
<td>30 14%</td>
<td>26 15%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>80 21%</td>
<td>51 25%</td>
<td>29 17%</td>
</tr>
<tr>
<td>Interdisciplinary Institutes</td>
<td>50 13%</td>
<td>25 12%</td>
<td>25 15%</td>
</tr>
<tr>
<td>Administrators</td>
<td>7 2%</td>
<td>2 1%</td>
<td>5 3%</td>
</tr>
<tr>
<td>No Answer</td>
<td>9 2%</td>
<td>[missing]</td>
<td>[missing]</td>
</tr>
<tr>
<td>Total</td>
<td>377 99%</td>
<td>208 100%</td>
<td>169 99%</td>
</tr>
</tbody>
</table>
entists is apparent. But even here the difference does not appear to be significant (Table 7).

A comparison of the number of uses recorded for respondents and nonrespondents showed no significant difference. Respondents borrowed an average of 3.84 items, whereas nonrespondents borrowed 2.11 items. A test of the difference of means showed no statistical significance between the two observed means.

Based on the similarity in characteristics between respondents and nonrespondents, it was concluded that the attitudes of respondents could be interpreted as reflecting those of the entire population.

The evaluation of the FDDS was divided into three parts. The first concentrated on an evaluation of overall performance, second, the impact on patterns of library use, and third, user’s reactions to funding a delivery service during a period of tight budgets.

Sixty-eight percent of the respondents rated the FDDS as excellent and 23 percent rated the service as good (Table 8).

**TABLE 8**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>143</td>
<td>68</td>
</tr>
<tr>
<td>Good</td>
<td>49</td>
<td>23</td>
</tr>
<tr>
<td>Fair</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No Answer</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>99</td>
</tr>
</tbody>
</table>

Although the term “excellent” is subject to different interpretations, the validity of this positive rating was supported by a chi-square analysis which tested the null hypothesis that no relationship existed between those who rated the FDDS excellent and those who reported that the service had caused a change in their library use patterns from users who rated the service as good, fair, or poor and who reported that their library use patterns had not been altered. The chi-square analysis of independence was found to be $X^2 = 5.6$ which is significant at a .95 level. The contingency coefficient value was found to be .17.

The comments appended to the questionnaires also reflected a variety of interesting attitudes:

**FDDS is perhaps the most useful campus service to me as a faculty member. I have been very satisfied with the service since the beginning and I am desirous to see it continue and prosper. This is one of the best things to happen to me and my students in the last ten years, now I spend time thinking (hopefully) and planning rather than doing routine searching. Please retain it.**

**I've now left the university, but since this questionnaire was forwarded to me and I was very enthusiastic about the service, I wanted to respond. If I had the time I would fill the page with superlatives about the entire approach of FDDS. The idea and its implementation are great. Shortly, I will be moving to another university and I pray that FDDS is a part of their library services. This is the best damn service the library has ever offered—keep it going.**

Only a few reservations were expressed. One regular library user stated that the service was completely superfluous to him because the library was his work place. Another respondent chastised the FDDS, noting that his first attempt had been a complete failure: the book could not be found by the FDDS staff, yet he had found it himself within a few minutes. Not surprisingly, he had not tried the service since. He did add that the service would be important if it could be made to work!

The FDDS did affect the library use habits of many users. Fifty-four percent of the respondents revealed that the FDDS had altered their patterns of use. As previously noted, a chi-square test for independence suggested the ex-
istence of a relationship between those who rated the service excellent and those who had changed their patterns of use (Table 9).

**TABLE 9**  
**DID FDDS CHANGE YOUR PATTERN OF LIBRARY USE?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>112</td>
<td>54</td>
</tr>
<tr>
<td>No</td>
<td>75</td>
<td>36</td>
</tr>
<tr>
<td>No Answer</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>100</td>
</tr>
</tbody>
</table>

Over 90 respondents appended explanations as to why the FDDS had altered their use patterns. The most commonly cited reasons, with number of times cited were:

1. Saves time (Time was usually defined to include traveling, searching, and retrieving.) (23 times)
2. The library is now easier to use, consequently my usage has increased. (22 times)
3. The library is now more convenient to use. (6 times)
4. No longer have to return books to the library. (4 times)
5. Office is so far away from the branch that without the FDDS I would not bother to borrow materials. (3 times)

Most comments could be translated into savings in time, simplification in accessing materials, and greater convenience.

Explanations citing why the FDDS had not caused a change were also revealing. Five persons said that they were browsers who wished to retain direct contact with materials. Two who rated the service excellent candidly admitted that the service hadn’t changed their use patterns because they could not shake their personal, long-standing habits. Three users noted that, since they had to use the library’s card catalog anyway, they might as well pick up their own materials.

The only FDDS-induced change which might be interpreted as negative is that some users now make fewer trips to the library. Several individuals observed that they no longer personally returned books to the library. If library effectiveness is based on the number of users who enter the building, a document delivery service could have negative implications.

Respondents were asked to rate the importance of the FDDS during a time of tight budgets: that is, did they rate the service as essential, important, convenient, or a luxury to their personal library needs. The replies can be judged only as tentative since the users were not confronted with the necessity of making a real choice among resources; nevertheless, the pattern of responses is worth noting.

Almost half judged the FDDS as being convenient, only 9 percent labeled the FDDS as a budgetary luxury (Table 10). Forty-three percent assessed the service as being either important or essential to the achievement of their work.11

**TABLE 10**  
**RATING OF THE FDDS IN A TIME OF TIGHT BUDGETS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>52</td>
<td>25</td>
</tr>
<tr>
<td>Convenient</td>
<td>92</td>
<td>44</td>
</tr>
<tr>
<td>Luxury</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Important</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Essential &amp; important</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Convenient &amp; important</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Essential, convenient, &amp; important</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Essential &amp; convenient</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>No Answer</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>99.5</td>
</tr>
</tbody>
</table>

The FDDS was also evaluated by an analysis of the frequency of use compared against individual ratings (Table 11). Clearly, as the frequency of use increases so does the perception of importance. A chi-square test of independence supported the hypothesis that the distributions are statistically independent.
TABLE 11
COMPARISON BETWEEN FREQUENCY OF USE AND RATING OF THE FDDS

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>Convenient or Luxury</th>
<th>Important, Essential, or Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>73</td>
<td>35</td>
</tr>
<tr>
<td>3-4</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>5-6</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>7-8</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>9+</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>

($X^2 = 30.4; \ df = 4, .95$ level of significance, critical $X^2 = 9.49$).

ECONOMIC IMPLICATIONS

Cost studies of the FDDS were not conducted. The operating costs for the first year totaled $9,500. Included in the figure are personnel costs, rental of a delivery truck, a telephone answering recorder, and supplies and forms. The total cost prorated on a per request basis yields a cost per transaction of $3.31. This gross costing method actually overstates the unit cost, since the person assigned to operate the FDDS devoted only 60 to 70 percent of his time to FDDS related tasks. During the remainder he supervised stack workers and performed other duties within the Circulation Department.

If one considers the hourly salary of the average faculty member, and the time required to travel to the library to search, retrieve, check out, and return to his office, the operations of the FDDS are cost effective. For example, a faculty member earning $12,000 a year on a nine month contract earns almost nine dollars per hour. He would have to complete his library visit in 22 minutes to match the costs of the FDDS.

However, even if unit costs could be reduced to as little as one dollar, or better yet to fifty cents per transaction, the impact would be obscured because some of the costs of retrieving library materials are hidden. Faculty members now fend for themselves. What the FDDS does is to conserve the time of the university’s most important resource—its faculty. On this point a physicist cogently observed:

One way economists judge the value of a “good” service is how much one would pay to have the service. On this basis, I would not consider it excessive to pay $50.00 per year from my research grant (if NSF would permit) or $10.00 per year from my own pocket.

Budgeteers and legislators are conditioned to measure effectiveness primarily on costs saved. But how does one measure quantitatively the value of library resources or of an education? A service might be more usefully judged on whether it increases utilization of the library. In economic terms we are comparing a $9,500 expenditure as one means of encouraging greater use of a resource costing more than two million dollars per year to maintain.

The potential scope and impact of a faculty document delivery service are clearly mirrored in the following reactions:

Our institute library is very specialized. The delivery service helped compensate for these lacks.

FDDS is essential since books are scattered around the several libraries, many books are missing or reserved. FDDS helps my teaching and research tremendously. I have recommended the system to many other universities. It is one of the few things I can be proud of concerning this university’s operation.

Without the FDDS this book would not have been published. (This statement appeared in the foreword of a book authored by a member of the faculty.)

Please keep the service; it is essential to me for I have a broken foot.

CONCLUSIONS

The FDDS was able to deliver four-fifths of the items requested by mem-
bers of the teaching and research faculty. We do not know how this level of performance would compare with performances at other institutions, but it is probable that most research libraries can supply more materials than most users assume.12

The FDDS was well received by the majority of its users. Over half of those who used the service reported that it had altered their library use patterns. Initially library staff members feared that the library would be swamped and overwhelmed by requests. The predicted high demand level did not materialize. One explanation can be found in the literature of innovation diffusion. Research in this field rationally explains the process by which people adopt new ideas. In short, a user will not automatically adopt a new library service even though it will “improve” his access to materials; he must first become aware of the service and be sufficiently interested to give the idea a trial; the trial must then prove successful before the idea is finally adopted and the change in behavior is complete.13

An FDDS service can be operated on a cost-effective basis, particularly if cost effectiveness is translated into hours saved. It is our belief that the time saved for users should be considered as one measure of library effectiveness. Likewise the impact of a service on the intensity of library use should also be adopted as a measure of effectiveness. Cost figures in isolation provide a distorted, incomplete picture.

The FDDS helped to ameliorate the inconveniences associated with using a decentralized collection. Respondents reported that the FDDS saved travel time and solved the aggravating problem of inadequate parking. One initial objective of the FDDS was to provide an alternative channel for researchers working in interdisciplinary institutes. To this end the delivery service succeeded.

In summary, a document delivery service may offer a viable alternative to small decentralized branches. We still need to learn more about the day-to-day material use patterns of researchers. If one could neutralize the political and emotional pressures, it might be discovered that departmental libraries do not offer the most effective pattern of library organization. For example, if a departmental library is used primarily to keep current, a reading room stocked with selected current journals and reference books backed up by a strong central collection, coupled with a document delivery system might offer a more responsive organization. A document delivery system will not solve all the problems caused by a decentralized collection, but it will lower some barriers to use perceived by some researchers.

REFERENCES

5. Memorandum to members of the University of Colorado faculty, Boulder campus from Ralph E. Ellsworth, Director of Libraries, Boulder, Colorado, January 22, 1969.
6. Memorandum to members of the University of Colorado faculty, Boulder campus from Ralph E. Ellsworth, Director of Libraries, Boulder, Colorado, April 17, 1969.
7. An NSF-supported study at Syracuse University (GN-32381) which is investigating how faculty use libraries, supported the contention that graduate assistants often
use the library in behalf of a faculty member.


10. No analyses based on broad subject disciplines were undertaken. The distinction among traditional academic labels has become so muddied by the emergence of cross-disciplinary programs that many categorizations would be artificial and arbitrary. The analysis was used only as a check to compare respondents and non-respondents.

11. “Convenient” and “luxury” were interpreted to mean that the service rated a low priority, and “essential” or “important” as indicators that the FDDS deserved a higher priority. Some who labeled the service as convenient nevertheless appended notes indicating that they very much wished to see the FDDS retained.

12. The expectation rates of users is presently being investigated under NSF Grant GN-32381.

Library Pathfinders: A New Possibility for Cooperative Reference Service

Library cooperation in reference services has been limited and largely unstructured. Library Pathfinders offer the opportunity to share reference methodology in an organized, nationwide manner. Intended to introduce library users to the variety of information sources available in research libraries, Pathfinders have been published in a wide range of disciplines. At M.I.T.'s Barker Engineering Library, they have proven to be effective time-savers for both library users and professional staff. The authors describe Pathfinders in detail and indicate how these reference aids can provide improved user service and instruction.

Although many forms of cooperation exist, a review of library activities shows that few have concentrated on reference work. In fact, no notice appears in the literature of a system for sharing the methodology for identical or similar literature search. A plan for sharing the scheme of a basic reference search has been developed within the Model Library Program of Project Intrex, Massachusetts Institute of Technology.* The product has been named “Library Pathfinder.”

BACKGROUND

Among library users are many who could benefit from professional assistance in the use of the collections. Some of these users recognize their situation and ask for the help they require; others do not; and a few do not even recognize their need. Those who do ask for assistance have questions that can be divided quite easily into four groups: di-

* The Model Library Program of Project Intrex is funded by the Council on Library Resources, Inc.
directional ("Where is the fiction collection?"); ready reference ("What is the capital of Mali?"); search ("What literary forgeries came to light in the 1940s?"); and library instruction ("Please show me how to gather a list of books, articles, reports, and theses on powder metallurgy.").

The direction question is generally answered from the librarian's familiarity with the surroundings. The ready reference question can usually be answered from a single source, well-known to the professional librarian. Search questions—those involving a multiplicity of media and sources plus intricate tracing of faint clues—may yield only to persistent application of intuition and intelligence. Results are seldom shared beyond the requester; only rarely will a note appear in the literature documenting a search and its results.

Questions that call for instructional answers are numerous and time-consuming for the librarian, but rewarding in the sense that, after the question is answered, the user is better able to respond to questions of the same type. However, the lasting utility of the instruction given in answer to a question requiring the librarian to serve as teacher depends on several factors. Does the librarian relate well to the requester? Is there rapport and communication? Is the question skillfully stated and does the librarian have the insight to seek the real question behind the stated query? Does the librarian have or take the time to answer the question with the fullness that satisfies but does not bore or burden the user? Is the librarian on duty the best one on the staff to answer each of the questions he or she will be asked? Can the librarian be effective on a one-to-one instructional basis when the same questions recur several times each day or each hour? If all of these questions receive satisfactory answers at all times the library cannot be faulted for its skill in instructional reference work.

These questions are tough ones and honest answers will reveal weaknesses in most libraries. Assuming weaknesses exist, is there something that can be done to help the user who needs better instructional service from the library? Library Pathfinders can provide improved service for many users.

What It Is

The Library Pathfinder is a kind of map to the resources of the library; it is an information locator for the library user whose search for recorded materials on a subject of interest is just beginning. A compact guide to the basic sources of information specific to the user's immediate needs, it is a step-by-step instructional tool that will, if followed, place before the user those items that the most skilled reference librarian would suggest as basic to an initial investigation to the topic.

What It Is Not

Each Pathfinder carries the legend, "Library Pathfinders—designed to help users begin to locate published information in specific fields—are prepared under a grant from the Council on Library Resources . . . ." An easily overlooked but important word in this statement is "begin." Pathfinders are not guides to the literature in any exhaustive sense; they are not bibliographies; they are not primarily accessions tools. Specialists may find them pedestrian and some reference librarians would deem them simplistic and perhaps trivial for their purposes; but they are not designed to serve either the experienced scholar or the reference librarian. They are for beginners who seek instruction in gathering the fundamental literature of a field new to them in every respect. Pathfinders are designed to be useful for the initial stages of library research.

Pathfinder Format and Content

The Library Pathfinder format is
fixed but flexible. In the upper right-hand corner, where it is easily seen in a notebook or a file, is the Pathfinder title. Below the title the arrangement is in two columns. Each entry includes call number and location information. Each Pathfinder begins with a “scope note,” a phrase or two to delimit the topic and to insure that the user has a Pathfinder in the area of his interest. Notice of the location of beginner’s introduction to the topic follows the scope note. The rationale for such an introduction is that the beginner’s first need for the broad view and for an acquaintance with the terms and language of his topic. Sometimes this introduction is an entry in a standard or specialized encyclopedia; sometimes it is a book chapter or journal article. The introduction citation includes sufficient information for the user to locate the specific sources; viz., the volume and page number in an encyclopedia or journal, the entry term if the page number is not the best lead, and the chapter or range in a text. The following are examples of title, scope note, and introduction entry:

**GROUND WATER SEEPAGE**

**SCOPE:** Subsurface water movement through soil pores to the soil surface; includes ground water flow into surface water bodies and into earth structures.

An introduction to this topic appears in the *McGraw-Hill Encyclopedia of Science and Technology* (1971) v.12, pp.507-509 under the entry “Soil Mechanics-Seepage and Frost.” Q121 .M147 1971 v.12 5th Floor

Following the note on the location of an introductory article, the Pathfinder gives the user the necessary information for using the card catalog without frustration. The Pathfinder reads, “Books dealing with (topic) are listed in the subject card catalog. Look for the subjects . . .” and then lists those standard Library of Congress subject headings that are in current use. This assures that the user will not unintentionally seek entries under words that are not used in the catalog and may not even appear on a “see” reference card. If entries are in more than one location in the card catalog, the user is led to each location and each subject heading is rated as either: “highly relevant,” “also relevant,” “related,” or “more general.” This distinction assists the reader who is beginning an exhaustive search as well as the one whose depth of inquiry is more limited.

In some topic areas there are texts that are mentioned again and again; these may be classic old tomes or important new books. The next section of the Pathfinder lists from one to six of these frequently mentioned texts to place their names before the user early in his work. The citations are abbreviated bibliographical entries including author, title, and date, and even page range or chapter(s) when such a limit is possible, but omitting the publisher’s name, the place of publication, and any descriptive notes.

“Where to browse” information comes next. The user is given the call numbers of the stack areas that should be mined if the user prefers this method of search. In practice it seems that more than one area is usually helpful and the call numbers for each are given.

Handbooks, encyclopedias, and encyclopedic dictionaries that contain information of high utility in the subject are listed in the next section of the Pathfinder. If numerical values or tables of importance are included they are mentioned in the entry. In each case the relevant page numbers are given to speed the user’s search.

At this point the order of the entries follows the pattern that we believe will be most helpful to the user of the specific Pathfinder. In science and engineer-
ing the item that follows is a short list of bibliographies that contain citations to the literature of the topic. The Pathfinder citation to a bibliography gives the name of the bibliography, its date, the extent of coverage in number of references when this can be easily determined, and/or the pertinent page numbers. When a definitive or pertinent bibliography appears as part of a book, once again the relevant pages are given.

Bibliographies are followed by indexes and abstracting journals. The Pathfinder reads, "Journal articles and other literature on (topic) are indexed primarily in the guides listed. The quoted subject headings are those in use since 1965 unless other dates are given." Each entry includes the name of the tool, a brief indication of its coverage, and the proper entry terms to use for the topic of the Pathfinder. The following are sample entries from two Pathfinders:

**TOPIC: BLACK AMERICAN NOVEL—20TH CENTURY**

*Social Sciences and Humanities Index* (1965+; formerly *International Index*) (200+ American and British scholarly journals) See: "Negro Literature (American)"

(to 1968)

"American Literature—Negro Authors" (1968+)

A13 .R2861 Humanities Library

**TOPIC: HEAT TRANSFER—ABSORPTIVITY**

*International Aerospace Abstracts* (Covers aero-astro literature) See: "Absorptance" (relevant)

"Absorptivity" (also relevant)

"Thermal Absorption" (more general)

ZTL790 .I61

Certain topics require guides to newspaper indexes and entry words used by these indexes. When these are germane they are listed with sufficient detail to be genuinely useful.

A short listing of current journal titles of first importance follows the listing of indexes. These titles are included to put before the reader the articles in the recent literature that will not yet have appeared in the indexes. The user, with a list of most-used journal titles in the field, can scan the articles listed in recent issues and bring his search up-to-date without unnecessary effort.

In some fields critical works are of singular importance and they are grouped together to assist the user. For other fields the heavily used state-of-the-art reviews and conference proceedings are listed, followed by a compilation of report indexes. Each entry is as specific as possible in a real effort to meet users' needs in one package.

**PATHFINDERS IN USE**

Pathfinders have been in use in the James Madison Barker Engineering Library at the Massachusetts Institute of Technology for an entire academic year and user response is enthusiastic.

The user learns of Pathfinders from the library staff, from other students and faculty, but most often from the card catalog where Pathfinder topics are entered under relevant subject headings. Each catalog card includes the legend: "Pathfinder (Topic). For literature searching use Library Pathfinder (number). Request at desk. A Library Pathfinder is designed to help a user begin to locate published information in a specific field." In the Barker Library, Pathfinders are given to users without charge.

Not all users employ the Pathfinders as they were designed to be used—moving through the sections from first to last in an orderly sequence. But in their random application, users do find that Pathfinders give them the guidance they would otherwise seek from the reference librarian. They appreciate the
exactness of the information given, particularly the call numbers and the page numbers. They comment favorably on the specificity of the topics, on the completeness of the coverage, and on the attractiveness of a guide that is on one sheet of paper. The chief complaint is that more Pathfinders are not available. There is continuing agitation for titles to be added without delay and the library staff is as eager as the users to satisfy this requirement.

**THE COOPERATIVE PROGRAM**

From the beginning it was recognized that one library could not produce a fraction of the Pathfinders it would like to offer to users. It was also obvious that the Pathfinders would be valuable both as a beginner’s guide for serious investigation and secondarily as an acquisitions guide for professional personnel. In order to increase the number of Pathfinders and make them available to a larger number of library users, a cooperative program has been developed.

The first step was taken as we found a way to make the work done at M.I.T. available to others. This was accomplished by inserting an intermediate step in the final stages of Pathfinder preparation. As the draft of the final Pathfinder is typed, the library name, the call numbers and the collection locations are omitted from the text. This provides a Pathfinder that is suited to its topic but not specific to a particular library. When this Pathfinder is reproduced two sheets are used. At this stage the Pathfinder is no more ready for use at M.I.T. than it is elsewhere. One set of the reproduced sheets (i.e., the Pathfinder master) is completed by adding the name of the library (Barker Engineering Library in our case), the call numbers for each of the sources cited and the locations within the library. Then the completed Pathfinder master, adapted for M.I.T., is ready for final multiple printing—this time on two sides of one sheet of card stock drilled for a student notebook. A less expensive alternative is to file the two-page completed master for on-demand duplication on the library’s copy machine at either the user’s or the library’s expense. Other copies of the two-page master are ready to send to other libraries that want them and have agreed to participate in the cooperative program. Participation, in this case, does not mean simply the use of the Pathfinders available from M.I.T., but includes the creation of new Pathfinder titles using the style and guidelines that have been developed for them. In this way, the library that wishes to use Pathfinders adds to the number of titles available and contributes to the shared reference activity promised in the Introduction.

Questions on many points arise all at once. What does it take to compile a Pathfinder? Who can do it? How are topics selected? How are Pathfinders prepared for initial typing? Where and how is the initial typing and printing done? What is Pathfinder exchange basis?

Compilation of a Pathfinder is a substantive task for a trained librarian. It requires about fifteen hours of effort to compile one topic. This time decreases when several related topics are done at once.

The initial task is that of topic selection. The objective has been to seek high utility and current parlance in the topics since Pathfinders that would help the most people would, at the same time, provide the best test and be the most help to the library’s reference staff. Current terminology has been used to obtain the highest degree of user acceptance. The initial method for selecting topics involved a review of the noun phrases within the course descriptions in the M.I.T. Catalogue. These noun phrases were compared with those gathered from recently completed theses.
and from theses in progress. Ideas that appeared repeatedly were considered candidates for Pathfinders and a quick check with an appropriate faculty member confirmed or rejected the choices. As selections were made, consideration was also given to the collection that would be used to compile the Pathfinders. Efforts were made to avoid topics that were either too broad to be of genuine interest to users or too narrow to be helpful to more than a handful of patrons. After the appearance of the first titles, users began to ask for new titles at a rate that outstripped the ability of the Model Library staff to produce them. Requests are weighed carefully and those that meet the established criteria are selected. As cooperating libraries join the program they are urged to compile Pathfinders in areas in which their collections are strong and in which there is a demonstrated need for the product. The function of the Model Library staff, at this point, is to provide a central registry of topics to reduce the possibility of duplication of effort.

Those who compiled the first Pathfinders here at M.I.T. are the authors of this article; each is a professionally trained and experienced librarian. The staff's judgment was that this background would be essential to a finished product. Nothing has occurred to change that view. Professors and graduate students are aware of some kinds of source materials but either they do not have the full scope of the literature at their command or they do not exhibit the interest necessary to compile a Pathfinder for beginners.

However, one group of willing contributors who are qualified to perform the initial spadework on Pathfinders are students in the graduate schools of library science. Beginning with the students in Professor James Matarazzo's class in the literature of science and technology at Simmons College, programs have been initiated in a number of library schools in which Pathfinders are compiled as course assignments. The majority of the humanities and social science Pathfinders began as student assignments since only a few were done at M.I.T. as a demonstration.

The student work is incomplete and unacceptable in some cases, but better than half are useful beginnings for finished products. A Pathfinder of good quality from a student may need only five hours of work by the Model Library staff to make it ready for publication. To insure that work is not duplicated, the same care in selection of topics is exercised for school assignments as for those done by professionals. The name of the compiler and his institution appear in an acknowledgment on the verso of the final, edited Pathfinder.

To facilitate Pathfinder preparation, detailed guidelines are provided to direct the compiler towards producing a Pathfinder of standard, high quality. In addition, a worksheet is provided which has the standard introductory phrases for each section and space for entries. It is this completed worksheet that is often received from cooperating libraries.

Using masters preprinted with logo and copyright information, the typist prepares each Pathfinder for final printing. Typing time is approximately thirty minutes and each Pathfinder is, of course, proofread and corrected.

Two major areas of concern are the problems of updating Pathfinders and increasing their distribution. Pathfinders will be updated annually in areas of emerging interest, such as environmental pollution and transportation science.Titles within the more traditional subject areas, such as heat transfer and fluid mechanics, are scheduled for biennial revision.

An attractive feature of the Pathfinders, however, is their built-in updating capability. By including Library of Congress subject headings and abstracting and indexing service headings, the
user has the capability to update the results of a Pathfinder search.

The distribution procedure has been a more serious problem. Many institutions have indicated a preference for purchasing Pathfinders over committing a significant amount of professional staff time to Pathfinder compilation. This fact, combined with our lack of ready capability to market and distribute Pathfinders on a wide scale, led to negotiations with commercial publishers and ultimately to contractual agreement with the Addison-Wesley Publishing Company, which began distributing Pathfinders at a cost of $1.00 per title. The charge includes full internal reproduction rights and two catalog cards for entry into subject card catalogs. Editorial responsibility remains with the Model Library Program.

As the program expands there is a possibility that Pathfinders will be compiled for users in many types of libraries, including high school libraries, community college libraries, and public libraries of all sizes. As long as library users are bewildered when faced with specific information needs, Pathfinders could continue to lead them into, and perhaps through, the labyrinth.
Iranian librarianship is in the embryonic stages of development, especially with respect to modern and functional academic libraries. In three major areas—personnel, resources, and physical facilities—the academic libraries are deficient compared with Western standards. Although all major cities of Iran do have either a college, university, or technical library, the best academic libraries are to be found at the University of Tehran, Pahlavi University, and the University of Isfahan.

The modern concept of librarianship as a professional career is largely a development of the last decade in Iran. Though her cultural and educational heritage is an ancient and distinguished one, the idea of attractive, functional libraries open to the public is a recent innovation, and one that is still being tested as it develops. Libraries have flourished in Iran for many centuries, but it is only recently that efforts have been made to adopt Western methods and techniques, and to encourage independent study and leisure reading beyond the traditional memorization of textbooks. The purpose of this paper is to survey some of the recent developments in academic librarianship in Iran, and to assess some of its strengths and weaknesses.

Iran’s modern educational system may be said to date from the establishment of the College of “Darol-Fonon” (House of Sciences), founded in the capital city of Tehran (1850). A number of British, Austrian, French, Polish, and Italian instructors were brought there to teach technical and scientific subjects. The college began with 100 selected students, all sons of nobility. Later the curriculum was expanded and three foreign languages (English, French, and Russian) together with painting and music, were added. In 1858 there was created a Ministry of Sciences and Fine Arts, and a few years later (1862), a special bureau of translation, attached to the Court of the Shah, for the purpose of translating important European books into the Persian language. It was just a century ago (1873) that the first official library, called the Royal Library since it was attached to the Court, was inaugurated. A society “for the establishment of the national schools” was founded in 1897, thereby providing the first free schools throughout the country. In this same year, the National Library was begun, and two years later, a college of political science and an agricultural college were opened under government auspices.

Although the Constitution of 1906 and later laws passed in 1910 underscored the government’s responsibilities and concern for education, it was not until the reign of Reza Shah, father of the present ruler, that any great impetus was given to education. Not only was he responsible for the founding of state schools, teachers’ training colleges, tech-

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technical colleges, and a modern university in Tehran, but he also dispatched hundreds of scholarship students abroad for further study. Universal free primary education came with legislation passed in July 1943. The tremendous growth of both primary and secondary education since World War II, and the government's continued efforts to wipe out illiteracy, give indication of its concern for education.5

In the middle of the nineteenth century, university education was remodeled along the lines of the French system. Several university "colleges" were established in Tehran and functioned independently until 1934. In that year they were merged to form the present University of Tehran. During the academic year, 1968-1969, some 50,000 students attended forty-four Iranian institutions of higher education.6 Over 20,000 students are studying in other countries, a majority of these in the United States. Major provincial universities, created since 1934, have followed the pattern set by the University of Tehran, and many aspects of higher education are being influenced by American practice.7 This brief background will serve as an introduction to the major aim of this discussion: a consideration of academic librarianship in Iran.

The best of Iranian libraries are connected with the universities or with the government ministries. In spite of an increasing acknowledgment by administrators and younger faculty that libraries are essential, and must receive greater support, most academic libraries are understocked, poorly managed, and contribute little to the education of the student.

It is difficult to expect otherwise, as Slocum comments, "in a country in which librarianship has no status, in which there are literally only a handful of professional librarians, and in which the educational system is based on the memorization of textbooks."8 There are exceptions, of course, and in the last five years alone the number of professional librarians has more than quadrupled. In the universities, each independent "faculty" has its own collection of books and periodicals, with the result that there is often duplication of materials and insufficient coverage of major fields of learning. The students are not, for the most part, encouraged to use libraries; those who might wish to do so find it difficult. There are few libraries with open shelves, card catalogs are generally inadequate, and the sub-professional staff is not equipped to give reference service. Only two universities in all of Iran have firmly established the position of director of libraries.9 As recently as 1970, the oldest and largest institution in the country (the University of Tehran) had head librarians for each of its faculty libraries, but no coordination of library administration. Few Iranian academic libraries would measure up to American standards for college libraries, but it is perhaps unfair to make such comparison at this stage in their development.

Let us proceed now to an examination of the three major areas of academic librarianship, and survey the strengths and weaknesses of several typical libraries.

The most crucial problem facing Iranian librarianship today, and in the immediate future, is that of personnel. "The development of university libraries requires above all the intellectual and professional services of men and women who have been trained for precisely such purposes—expert librarians."10 In part it is a problem for the universities and government to solve, but also one of major concern to the embryonic library profession of Iran.11 In 1965, according to the best estimates available, there were no more than a dozen trained librarians (master's degree in library science) in the entire country; today there are approximately
100, most of them in the various libraries located in Tehran. There are insufficient Iranian professionals to fill the top positions in the country's academic libraries. The heads of the four "faculty" libraries at Pahlavi University, for example, are all Americans on temporary appointments. For the past five years there has been a Fulbright professor on the library science faculty at the University of Tehran. For one thing, it is difficult to find candidates whose academic and scholarly qualifications are sufficiently high to qualify them for admission to graduate schools of library science. One of the solutions to the personnel problem will be to seek out such individuals, sending them abroad for the master's degree, or encouraging them to apply for admission to the library science program at the University of Tehran. Though there are also several other library schools in the Middle East most Iranians prefer to study in the United States if they can meet admissions requirements and secure the necessary funds to support themselves for the duration of their study abroad.\textsuperscript{12}

One of the more significant developments of the past five years was the establishment of Iran's first formal instruction program in library science. In 1966, Alice Lohrer, associate professor at the Graduate Library School, University of Illinois, with the able assistance of Iranian colleagues, organized the Department of Library Science in the Faculty of Education, University of Tehran. The purpose of the new program was to provide professional library education for the University's own library staff members, to provide professionals for other developing institutions of higher education, and also to provide some understanding of library use for future teachers.\textsuperscript{13} A four-year bachelor's degree and proficiency in English were required for admission to this two-year, 36 semester-credit-hour, master's degree curriculum. English was chosen as the language of instruction since the senior instructors (at that time) were American Fulbright professors who taught in teams with Iranian colleagues who were expected eventually to take over all administration and instruction. Most of the classes are now taught in Persian (Farsi), except in cases where there is a foreign instructor. Perhaps a more valid reason for using English would be the lack of library science materials in Persian, and that without a reading knowledge of English students would be handicapped. The program was designed to combine the best features of American library education with the needs of Iranian librarians. In the summer of 1968 the department added an undergraduate minor. This was intended for students in Education and other fields who could prepare to become teacher-librarians and public library assistants. Students still have some difficulty adapting to modern methods of instruction (without textbooks), and still try to take notes verbatim and to review by memorizing all assignments.

In academic libraries the nature and size of the staff is affected by such factors as number of students, faculty, size and design of library, the character and condition of the book collection, branch collections, hours, teaching methods, etc. Staff members in most Iranian academic libraries are subprofessionals or clerks without the benefit of either long experience or graduate study. Thus, the primary need is for administrators, reference librarians, catalogers, and faculty for the library science program. Each year there are a few more graduates who receive degrees from abroad; each year there are a few more graduates from the newly developing library school at the University of Tehran, but the demand for trained personnel exceeds the supply, and will continue to do so for some years. Possible solutions? One is to break down the tradition that
most Iranian young people become doctors, engineers, or lawyers. There must be a concerted campaign for the recruitment of capable young men and women who will choose a career in librarianship. At the same time, there must be efforts made to improve the status and remuneration of those who make the effort to secure the master's degree in library science. Professional librarians trained in a foreign country now receive about 3,000 tomans ($400) per month; while those who received a degree in Iran find there is a 500 toman differential ($75) in their monthly salary. University officials should seriously consider subsidizing one or more candidates annually for the master's degree in library science, making it a condition of the grant that the individual return to that institution for at least two years of service. Through the Fulbright program, and other outside assistance, foreign librarians (as lecturers and consultants) have been a temporary solution to the shortage of librarians, but the day must soon come when there is no longer the need for such assistance. Guidelines must be established for staffing of academic libraries, ensuring adequate coverage in the first instance, and a basis for future planning and financing.

Problems of personnel will continue to plague Iranian academic libraries if librarianship is looked upon as a second-rate profession, without equal status and compensation to that of the teaching faculty.

A second major problem that exists in Iranian academic libraries is the size and quality of their collections. Because of the traditional textbook method of teaching, and the indifference to libraries in general, most academic library collections in Iran have been useless. Books are purchased haphazardly, catalogued chaotically, and shelved by any convenient system (including date of acquisition). Most card catalogs are hopelessly inadequate, and there have been almost no other aids, such as indexes and bibliographical guides, for the location of material. Open shelves are a recent innovation; there is a lack of scholarly periodicals and reference materials; reference and bibliographical works that do exist are almost entirely in foreign languages (useless to a majority of students).

The scene is gradually changing, however, and the role of the library in higher education is recognized. The institution with the largest collection is, of course, the University of Tehran, with resources totaling some 275,000 volumes and manuscripts. These materials are dispersed among thirty departmental or "faculty" libraries, though a central library collection has now been established with the opening of the university's new central library building (completed 1970). Two other universities in Iran have collections of approximately 100,000 volumes, though the quality of these resources at Pahlavi and Isfahan universities is dubious. Other academic institutions have collections of under fifty thousand volumes, and probably lack the basic resources to support subjects in their own curricula.

A part of the problem in providing adequate resources stems from the practice of making the deans responsible for the distribution of funds. In most cases there is no published library budget, no director of libraries, and no regular book funds for annual support or development of collections. In one particular case, the chancellor informed me that a reasonable sum was available for books during the current year. He neglected to add that this modest amount also covered periodical subscriptions, binding, or duplicates for reserve. According to the library staff less than five thousand dollars was actually available for the purchase of books that year. In another situation, the administration found it expedient to spend a sizable amount on a special collection of old
newspapers (unbound), but the librarians didn't even know how much was available for books. It is essential that book funds be provided annually, that restrictions on imports and currency be modified, and that cumbersome postal procedures be overhauled. The acquisition of materials in the Middle East is a tedious and frustrating process at best, presenting daily obstacles to library growth and development.

In nearly all the academic libraries I visited, there was need for some kind of "standards" in the selection of materials. Assuming that the university grants the library staff responsibility and authority for book selection and acquisition, a close working relationship must be cultivated with the teaching faculty.

The third major area essential to good academic library service is that of physical facilities. A balanced staff is not enough; a basic book collection, however well-selected and funded, is not enough; there must also be attractive, functional facilities for effective library service. Though the physical facilities of Iranian academic libraries are often impressive, too often they have been planned and executed without adequate consultation among librarian, architect, and university administrators. Appearance is all-important in the Iranian concept, and one frequently wonders whatever happened to the principle that "form follows function." Regardless of exterior or interior embellishment, the most successful library buildings have been those which clearly and directly express and provide for the functions that are performed within them.

One of the largest university libraries in the Middle East has just been completed on the University of Tehran campus. Its book capacity is one-half million, and though it will ultimately rise to a height of ten stories, its design seems to stress monumentality rather than simple function. Nevertheless, it is impressive, even by western standards of construction.

At Pahlavi University's new mountain-side campus, a six-million-dollar library is presently being built. Located at the pinnacle of the campus, it will eventually be surrounded by other academic buildings already planned for the site. The present library at Pahlavi was planned and constructed while I was acting director of libraries (1965-66), and is a modest, cement-block structure on one level, with two large reading rooms on either side of a central circulation counter. Two additions have been necessary in the past five years due to the heavy use of the library by students. In addition to this central library, Pahlavi has new libraries for both engineering and agriculture faculties, and its excellent Medical Library has expanded as far as it possibly can in its present quarters in the main building of the Faculty of Medicine.

The present University of Isfahan is in the process of building an entirely new campus, and there are many inconveniences caused by the fact that its libraries are scattered in various parts of the city at the present time. Already there are several attractive modern buildings on the new campus, with temporary libraries located in three of them. Though they provide large reading rooms, no imagination has been shown in the arrangement of stacks, offices, or furnishings; in fact, the branch libraries all look alike. Each of the libraries have closed stacks, no professional staff, and no evidence of reference service. According to the director of libraries, provision is being made to open up the stack areas and to rearrange the check-out counter for proper control of egress. Though a new central library is on the drawing boards for this rapidly developing campus, the central collection remains on the downtown campus and houses about 40 percent of all library resources. It has a depressing in-
terior, is poorly arranged, and is certainly inconvenient for student use. Eventually the University of Isfahan should be the equal of Pahlavi and the University of Tehran.

Among the smaller academic institutions, Damavand College (formerly the Iran Bethel School for Girls) has made good use of its limited space in the basement of the school's main building in the heart of downtown Tehran. Future plans call for a new campus in suburban Tehran, enlarging all aspects of the college on a campus designed by Frank Loyd Wright Associates. Reportedly the first major building, for which funds are available, will be the library. The administration at Damavand appears to be progressive, and the president was anxious that plans for the library be carefully evaluated by a professionally-trained librarian. Another small college, catering to middle-class Iranian young women, is Iranian Girls College, located on a lovely campus in north Tehran. The physical facilities of its library are impressive, with one of the most attractive and functional reading rooms of any Iranian library visited. However, there is no professional librarian in charge, and the staff consists of untrained clerks and former students. The budget is quite small, and the circulation of books per student is low.

Pars College, a private, liberal arts institution serving about 1,500 students, most of whom live in Tehran, is housed in three large older buildings in suburban Tehran. The librarian, one of the first graduates of the library science master's program at the University of Tehran, is doing a commendable job under difficult circumstances. The library, with less than 7,000 volumes, is located on the second floor of the Administration/classroom building; it is crowded, in need of more staff and more space for expansion. There is a second collection in one of the other buildings, and both parts of the library have been made as attractive as possible. Plans for a new campus, competently drawn by a firm of French architects, include a separate library building. No funds are in sight for its development.

Though no specific mention has been made of Tehran's National University, or the provincial universities at Mashad, Tabriz, Ahwaz, Kerman, or Rezayieh, the pattern is similar. By Western standards, most Iranian academic institutions are still in the stages of growth and development, while attempting to meet the needs of today's expanding student population. The urgency of, and the need for, college and university and technical education in a country that is moving rapidly into the twentieth century poses one of the biggest problems to educational planners in Iran. When the current "Fourth Plan" was prepared, it envisaged some 40,000 students applying for admission to institutions of higher education by 1972; it is now certain that the number will prove to be more than twice what had been anticipated. Though there are now colleges or universities in all the major cities of Iran, plans are already being made for the extension of these institutions, and for additional new ones in the decade of the seventies. With the development of higher education will come the development of libraries, but there is needed a dedicated effort on the part of Iran's core of professional librarians to see that modern librarianship is not ignored and that funds are made available from the government and other sources for staffing, collections, and buildings.

Furthermore, it will not be sufficient to provide libraries properly staffed, properly stocked, and properly funded. Iranians will need to be instructed in their use, encouraged to do more independent reading, and weaned from their traditional patterns of learning. It is an exciting and challenging period
in Iran’s social and cultural development, and it offers an opportunity to anyone who becomes in any way involved with it.

References


2. The author has had Fulbright assignments in Iran on two separate occasions: At Pahlavi University, Shiraz (1965-66) and at the Department of Library Science at the University of Tehran (1970-71).


4. Pourhadi. Iran’s Public . . . Libraries, p. 222: “The National Library . . . was not officially opened until 1937, although it has large collections relating to the 16th and 17th centuries . . . obtained from private and public libraries dating back to the early sixteenth and seventeenth centuries.”


7. Pahlavi University in Shiraz, for example, is referred to as an “American type university.”


9. Pahlavi University (Shiraz) and Isfahan University (Isfahan).


11. The Iranian Library Association was officially established in October, 1966.

12. There are schools in Ankara, Beirut, and Tel Aviv.


14. “Guidelines” are being developed by the Iranian Documentation Center, Tehran.

15. Iran Almanac, 1970.

Library Group Practice

A plan for library group practice bears several striking similarities to a medical group practice, both in rationale and in patterns of service. Library group practice is a means of enhancing professional achievement, improving the rate of productivity in libraries, and thereby offering one way in which information can be marketed by libraries at an acceptable price.

Academic libraries are changing. They must change. Library costs have risen while the rate of productivity has remained virtually the same, with the result that the information product has nearly been priced out of the market.¹ Librarians must devise new ways of producing their product so that it will be within the reach of users.

Academic librarians are also faced with the issue of professionalism which has been forced by ACRL's adoption of the "Standards for Faculty Status for College and University Librarians."² Faculty status, to be meaningful, must include the respect of the faculty and students. Professionalism and respect do not come automatically from the bestowal of faculty status or a decree from ACRL, but from a recognition of quality and, equally, the level of work accomplished.

True academic status requires greater professional performance and behavior on the part of librarians than patrons have generally been led to expect. Eldred Smith speaks directly to this point when he says of academic libraries:

If anything, they have too many librarians now: most of them spend the bulk of their time doing clerical work which nonprofessional personnel can perform equally well for substantially less money. What academic libraries do need is fewer but better-educated librarians who can step into the collection-development, substantial-reference, and bibliographical-consultant positions that are now largely unfilled.³

In other words, genuinely professional performance or the utilization of improved educational levels is a rarity. A different pattern, designed to recognize and make use of specialties rather than generalities, is required.⁴

It is the purpose of this paper to propose a plan whereby reference librarians can perform in a more professional manner and at the same time raise their level of productivity.

Service Functions

The public service or reference function is to act as an interface among the three corners of a triangle—the collection, the catalog and indexes through which the collection is made accessible, and the user. To make this interface effective requires three levels of activity: locational advice, instruction and guidance, and in-depth assistance and consultation.
Each level requires more and more specific knowledge, with the third level often requiring the skills of an information specialist. It is at this level that the user is in need of a co-worker to aid in locating information; a specialist to assist with a particular problem; or a consultant to confer with on how best to organize a search strategy, select appropriate informational tools and sources, or interpret, evaluate, and apply information.

In theory, in the legal profession it is assumed that, once a lawyer has qualified to practice law within a state, he is competent to handle all types of cases ranging from drawing up wills to civil suits and criminal cases. In reality, a quick survey of legal figures, past and present, makes it evident that specialization does take place.

Libraries follow a similar fiction in saying that the professional is presumed to be equally capable of undertaking work in acquisitions, cataloging, reference, circulation, or administration; or in humanities, social sciences, or science and technology. But, can the English major become the instant subject specialist serving engineers or economists?

The medical profession has approached this matter rather differently and, it would seem, more effectively as well as more honestly. In a field where specialization has become the rule rather than the exception for a majority of physicians and their supportive staffs, there has been an attempt to free the doctor of as many of the routine details, procedures, and technical matters as possible. This leaves him with only those duties which require his professional knowledge, training, and judgment. In order that his skills can be used most effectively, he will often further specialize and become concerned with only certain aspects of the patient’s health. Increasingly, the general practitioner acts as a referral agent for the more specialized members of the medical profession. A universal grounding in general practice provides a common language to make possible communications, referral, and consultation.

“The need to make specialized practice workable and adaptable to total patient care” is one reason suggested for the growth of group practice in the medical profession. In other words, physicians practiced as individuals until specialization made it desirable to work together. Librarians, on the other hand, work together even when specialization is so slight as not to be an influence. One explanation might be that the method of compensation and the ownership of tools (books) dictates where and with whom librarians work. But, whereas physicians come together in order to better utilize their specializations, librarians are already together and have done little in the way of studying how best to utilize their collective capabilities.

There are distinct similarities between a medical group practice and a library. The chief ones are: the client (patient/user) comes in need; rapid increases in accumulated knowledge have led to specialization or the need for specialization; specific practices, procedures, and services can be categorized according to the level of professional judgment required; continuing growth of knowledge and technological development point to an even more complex future requiring even more specialization; and finally, the client expects that future services will exceed past services, especially in quality.

The essential points of dissimilarity remain, but they really boil down to the treatment of disease vs. the servicing of information. This difference in content in no way invalidates the marked similarities in service patterns noted above. That being the case, we should consider which service features of the prosperous and successful field of medical
group practice can be adopted by librarians whose prosperity and success are rather less notable.

The medical group practice model evolved from a systematic sorting of medical and supportive activities according to the form and type of training required—by the level of professional judgment required to perform each activity. Each level of activity is staffed by persons specifically hired and trained to perform that level of activity. Thus, the medical group (and its supporting staff) may include such varied positions as neurologist, pediatrician, laboratory technician, pharmacist, registered nurse, receptionist, bookkeeper, and janitor. The guiding rule is that no one presumes to offer judgments above or beyond those he is professionally trained and qualified to make. Thus, a nurse may recognize the symptoms of a disease, but only a physician gives voice to a diagnosis or prescribes treatment. This is a crucial factor in the success of the medical group practice structure in its day-to-day functioning for without a careful and systematic regard for this distinction among the many levels of professional judgment the group practice structure would fail in its objectives.

Library Group Practice Concept

Library group practice would also require that activities be sorted systematically according to the form and type of training required—by the level of professional judgment required to perform each activity.

The group of activities surrounding locational advice is largely amenable to performance by nonprofessional personnel since scant (if any) professional judgment is required to direct the user to the water cooler, the card catalog, the dictionary stand, or the director's office.

The group of activities surrounding instruction requires more professional judgment than locational advice, but not enough to require exclusively professional personnel. Much of the routine instruction in the use of the card catalog, indexes, and other basic tools is highly repetitious and can be competently handled by a trained library assistant or technician. (Indeed, this can often be recorded and made available on-demand to meet the user's specific needs.)

More detailed guidance requires somewhat greater professional judgment in the form of a professional person but one with only a general and basic grasp of library science, i.e., the librarian lacking experience or a particular specialization. There can be a close parallel between the librarian performing this guidance function and the general practitioner providing only basic and referral medical services, for it is at this level that a determination must be made as to whether or not the patron is in need of research assistance or consultation which require professional judgment and often a high degree of specialization as well. The most efficient way of supplying this highest level of service is to have well-trained and specialized professionals who are on call or available by appointment to deal with specific user needs.

When a patient enters a medical group practice facility, he expects to be met by a receptionist who will direct him to particular persons and offices and who will make appointments for him. The professional is removed to a location where he can be more effective in working with individual patients without unnecessary distractions, noise, and confusion.

Similarly the library user, on entering a group practice library, should expect to be met by an information clerk who will determine what levels of service are required, direct the patron to the person who can be of assistance, and set up an appointment with the appropriate consultant-specialist. Again, the profession-
ai is removed from unnecessary distractions so that he can function more effectively and is free to exercise his other professional responsibilities which may include going outside the library as a floating librarian.6

For librarians to set up a group practice, it will be necessary to reorder priorities and assumptions. A librarian will be required to function at the level for which he is trained and only at that level. No longer can we insist that "every user have contact with a professional librarian." No longer can professionals absorb (willingly, eagerly, or otherwise) huge quantities of clerical routine "because it has to be done." No longer can the highly qualified and thoroughly experienced specialist devote a substantial share of his time to "sitting at the reference desk." Group practice requires that instead of everyone sharing and sharing-a-like, each assume the responsibility for that level of work for which he is professionally qualified.

The ideal composition of the library staff and its organization would be clerical-professional ratios of at least two- or three-to-one (as recommended by the Canadian Association of College and University Libraries).7 The ALA statement on Library Education and Manpower describes a logical and sound progression from clerical assistant to senior librarian and, in a supplementary statement, equivalents are also delineated so that individuals lacking training in library science but possessing an equal level of training in another discipline can be placed within the library structure at a suitable level where they can work and be compensated appropriately.8 The essential corollary is that each staff member understand that he must not overstep his training and competence: he must not presume to offer service beyond the level for which he is qualified.

Formation of a group practice must have the enthusiasm and support of the professional staff if it is to be effective; the librarians in turn must promote the group practice idea. At first, it will be necessary to secure the sympathy, cooperation, and understanding of academic administrators, boards of trustees, civil service commissions, and employee associations and organizations who must be convinced of the advantages of group practice. The mutual advantages to be gained from each person doing those tasks for which he is trained and qualified should become self-evident to them.

Group practice will permit optimum use of each staff member's training, ability, and experience. As the more expensive professional is relieved of tasks which can be performed satisfactorily by other persons, the return per dollar invested will be improved. Also, such reassignment will tend to enlarge the total reservoir of professional staff. The quality of service will have been improved, which should attract additional users. If not, it may be necessary to trim surplus staff. Either way, the per-unit cost of service will be held down. Clearly then, the group practice concept can contribute directly to an increase in the rate of productivity of librarians and enhance the quality of service at the same time.

SUMMARY

The concept of library group practice, the systematic working together of specialist librarians and supportive staff in a format modeled after medical group practice, has been briefly explored. The purpose of forming a library group practice is to enhance the service capabilities of the library by making optimum use of all levels of staff and thereby improving the cost-benefit ratio and increasing the librarian's rate of productivity.

Technological and postindustrial society cannot exist without information; in fact, much of the commerce in such
a society will be in information itself. There is no question: information as a utility will continue to exist. If libraries are also to continue to exist, they must turn out a marketable product which the user can afford.

REFERENCES

Selected Reference Books of 1971-72

INTRODUCTION

This article continues the semiannual series originally edited by Constance M. Winchell. Although it appears under a byline, the list is actually a project of the Reference Department of the Columbia University Libraries, and notes are signed with the initials of the individual staff members. Since the purpose of the list is to present a selection of recent scholarly and foreign works of interest to reference workers in university libraries, it does not pretend to be either well balanced or comprehensive. Code numbers (such as AA71, 2BD89) have been used to refer to titles in the Guide to Reference Books and its supplements.

GUIDE


About 2,200 reference sources published or reprinted in India are represented in this compilation. Emphasis is on “in print” items and works easily available in Indian libraries; books and serials in English and in the various Indian languages are included. A classed arrangement is employed, with appropriate subdivisions under four principal groupings: (1) Generalia; (2) Humanities; (3) Social sciences; (4) Pure and applied sciences. An index of authors, titles, and subjects facilitates use. There are numerous annotations, mainly descriptive.

BIBLIOGRAPHY


Subtitle: Bibliographie générale des ouvrages parus en langue française.

Now that the first long-range results of the merger of Biblio (Guide AA472) with the Bibliographie de la France (Guide AA473) begin to appear, an attempt to outline the effect of that union seems in order. The December 1971 number of Biblio announced cessation with that issue and indicated consolidation with the official national bibliography under the new title Bibliographie de la France—Biblio beginning with January 1972, but retroactive to 1971 insofar as the annual cumulation for that year is concerned. Although all 1972 weekly and monthly issues (which follow the classed arrangement with indexing as outlined in the Guide AA473 description of the Bibliographie de la France) carry the combined title, characteristics of Biblio do not emerge until the first quarterly cumulation, “Les livres du trimestre—Biblio.” That issue cumulates entries from the preceding quarter (including listings from the “Annonces”) in the author-subject-title arrangement familiar to users of Biblio; further cumulations will, presumably, follow the same plan.

The 1971 annual under consideration here serves as the final cumulation of the monthly issues of Biblio as well as the continuation of Les livres de l’année of the Librairie française (Guide AA474a); it conforms to the dictionary arrangement of the Biblio annuals, but offers the broader coverage of the other title.


Added title-page in Latin: Res litteraria Hungariae vetus operum impressorum, 1473-1600.

First in a proposed series devoted to early Hungarian publications, this volume expands and augments the listings in Károly
Szabó’s Régi magyar könyvtár (Guide AA534). Covering the period to 1601, it combines in a single chronological sequence the citations to early Hungarian imprints in whatever language with publications in Hungarian published outside Hungary, thus drawing together materials from pts.1–3 of Szabó’s work and adding much new material—not only additional titles, but fuller descriptions and a wealth of bibliographic references. Copies are located, including numerous copies in libraries abroad and photocopies in Hungarian repositories. An extensive section of reproductions of title-pages and other selected pages is provided as an aid to identification of works cited. The many indexes afford approaches by title, subject, printer, language, place of publication, and library location.—E.S.


The compiler has spared his fellow scholars much time and effort with this comprehensive listing of published material on American printing and publishing. His guide is a classified checklist of primary and secondary sources, emphasizing scholarly, retrospective lists of American imprints; current literature of the book trade is excluded, as is research in journalism. The nine categories comprising the main body of the work are: regional imprint lists; genre lists; author lists; copyright records; catalogues of auction houses, book dealers, exhibitions, institutional libraries, and private collections; retrospective book-trade directories; studies of individual printers and publishers; general studies of printing and publishing; and enumerative checklists of secondary material. The general cut-off date for sources is the end of 1969, with a few items from early 1970. A lengthy introduction discusses each category and mentions reference works not included in the lists; access to it, as well as to the body of the volume and the appendix of 250 titles on American printing and publishing, is provided by a name, place, and subject index. Professor Tanselle has emphasized that the guide is meant to be introductory and that he hopes to receive additions and corrections; as it stands it is a useful and informative work.—D.G.

ENCYCLOPEDIAS


Contents: v.1, Aalto-Amidon. 39.00 F.

With this new addition to its line of encyclopedias (Guide AD27-31) Larousse has broken with its tradition of the narrow-subject entry and has attempted to utilize the best features of both the dictionary and the classified arrangements. General concepts, historical periods, biographies, philosophies, literary and artistic movements, complicated technical processes, etc., are entered in alphabetical order, and a detailed index is to be issued as the last volume of the set. Volumes are expected to appear at the rate of about one per month, with some 80,000 entries to be included in the completed work; periodic updatings are planned. Emphasis throughout is on the twentieth century; thus, special attention is paid to recent developments in the fundamental sciences; modern disciplines such as information science are discussed at length; and articles on out-of-date technology are omitted. This new work, then, has been designed to supplement, not to supersede, its predecessors.

Unfortunately, the twentieth-century point of view has influenced not only the content of the articles, but also layout and typography. Little boxes presenting essential facts, important dates, etc. interrupt the text, strictly technical diagrams are in distracting color, and there is an over-use of sans serif type and italics.—N.S.

DICTIONARIES


“Designed to meet the needs of those whose mother-tongue is English and who are learning Arabic, and of those whose mother-tongue is Arabic and who are learning English” (Pref.), this dictionary is un-
usual in its presentation of English usage of three types (formal literary usage, colloquial English, and slang) with Arabic equivalents, as far as possible, at the same levels of usage. The selection of English terms was made principally from the *Concise Oxford Dictionary* and the *Advanced Learner’s Dictionary of Current English* and expanded by examples of English usage likely to prove difficult for the Arab student. The text was arranged for the press in a combination of photo composition and calligraphy; the English head word is in boldface with each usage indented and so spaced that a specific meaning or phrase is readily found on the double-columned page. Pronunciation is not indicated.—R.K.


This is an important new dictionary. Though intended primarily for Russians reading English-language texts, numerous features recommend it for use by English-speaking students of Russian: prefatory material appears in both languages, stress is marked for Russian words, many compound and idiomatic expressions are allotted separate entries, and emphasis is on the modern language. Genders and conjugations of Russian words are not given, however. While some Americanisms are included, it should be kept in mind that spelling and meanings are basically British; thus, one may look up the Russian equivalent of “dust bin” but not of “garbage can.” With 150,000 entries, this is now the most complete English-Russian dictionary available, and its appendixes (covering personal and geographic names, monetary units, and the metric system) increase its usefulness.—N.S.


Contents: v.1, A-Affiner.

In 1957, when Emile Littré’s *Dictionnaire de la langue française* (Guide AE224) fell into the public domain, a group of prominent romance philologists met to decide whether a simple reissuing of the dictionary would be adequate, or whether some revision or even a total replacement would be necessary. It was resolved to begin work on a comprehensive historical dictionary of the French language, the equivalent of the “O.E.D.,” starting with the language of the nineteenth and twentieth centuries and ultimately covering the very earliest stages of the language. The present volume makes one hope that the project will not take too many years to complete; the use of computers, the editor assures us, should help cut down on production delays. This dictionary far surpasses all existing general French dictionaries in thoroughness. Entries include definitions, numerous illustrations from literary or scientific texts (with full bibliographic information), a generic section on history and etymology (again with references), pronunciation in the international phonetic alphabet, citations to books and articles containing further information, frequency of occurrence in the texts examined, and—of immense help to students learning French—detailed indications of usage and syntax. A list of the 1,000 texts scanned is provided. The typography deserves special mention: few dictionaries are so easy to consult.—N.S.


This is a medium-sized dictionary for English-speaking students of Russian. Stress of Russian words is marked, parts of speech and categories of usage are indicated, but in order to save space, adverbs formed regularly from adjectives are omitted, as are numerous compound words whose meaning is judged sufficiently clear from a knowledge of the prefix and root word. Since the Smimitskii Russian-English dictionary (Guide AE488), which usually includes these details, has approximately the same number of words plus useful appendixes on grammar and pronunciation and still comes out over a hundred pages shorter and several dollars cheaper, it is difficult to give this new dictionary more than a qualified recommendation.—N.S.
NEWSPAPERS

Newspaper Index, Jan. 1972-. Wooster, Ohio: Newspaper Indexing Center, Bell & Howell Co., 1972-. Monthly, with annual cumulation. $785 per yr.

Since one could hardly question the lack of bibliographic control over United States newspaper articles, there is no doubt that this new index will be well received by American libraries. The publishers hope to provide access to a balanced regional coverage of national, international, state, and local news through the combined indexing of four of America's largest and most strategically located newspapers: the Chicago Tribune, the Los Angeles Times, The New Orleans Times-Picayune, and The Washington Post. Reference to news items, letters to the editor, editorials, reviews, and obituaries is provided through both a keyword subject index and a separate personal name index. Descriptors are simple and straightforward, and there is a sufficient number of cross references. Each entry includes a short descriptive sentence and a reference by date, section, page, and column of the newspaper. The work is relatively easy to use despite the brevity of the entries. For libraries with smaller budgets and regional interests the Index is available for the individual newspaper titles instead of the four-in-one format.—B.W.

DISSERTATIONS


The past five years have seen the publication of several bibliographies of Asian studies dissertations, and the above items are welcome additions to the list.

Doctoral Dissertations on China cites 2,217 theses, principally from the United States, the Soviet Union, Great Britain, France, and Germany; there is an editorial warning that the listings from European institutions since 1967, and all those for the Soviet Union, are incomplete. Titles in the social sciences are arranged by period; those in the humanities, natural sciences, and on overseas Chinese communities by topical subjects. Information for each entry includes author's name, title (translated if not in English), university, date, and pagination. In addition, if the dissertation is available from University Microfilms, its order number and the volume and page reference from DAI are supplied. There are author, subject, and institutional indexes. The work will be updated by periodic listings in the Asian Studies Professional Review.

Doctoral Dissertations on South Asia cites 1,305 titles from the 1966-70 period concerning Ceylon, India, Nepal, and Pakistan, with an additional 108 works from 1971. Although it is an international bibliography, emphasis is on the United States, Canadian, and British contributions; Australia is represented only by the Australian National University, and the Soviet Union is not included. Under each South Asian nation the arrangement is by broad topic. Information provided corresponds to that in the Gordon and Shulman compilation, plus a brief descriptive annotation. Again, there are author, subject, and institutional indexes, and there are similar plans for updating.

The Sardesai work lists 2,814 master's theses and doctoral dissertations in Western and non-Western languages; no titles are supplied from the People's Republic of China, but Malaysia, Singapore, the Philippines, Thailand, India, and Japan are represented, together with listings from the United States, Western Europe, and Australia. Titles are arranged by country with-
in topical subject divisions. The subtitle of the work is somewhat misleading, as religion, literature, and linguistics are also covered. Transliteration and translation are given for materials in non-Western languages. Since the topical subject areas are very broad, a detailed subject index would have been a useful addition.—D.G.

**Biography**


For many years current biographical dictionaries such as *Kuka kukin on* (Guide AJ125) and *Hvem er hvem* (Guide AJ212) have appeared at fairly regular intervals for individual Nordic countries and in their respective languages. This new work includes biographies of prominent men and women from Denmark, Finland, Iceland, Norway, and Sweden, and is presented in English as a “neutral language” acceptable to all national groups. The 3,600 sketches are mainly based on questionnaires completed by the biographees and include “who’s who” type of data. A wide range of professions is represented, but basis of selection or qualification for inclusion is not spelled out in the introductory matter. Sponsorship by the Nordic Council seems to be implied, but is not definitely stated.—E.S.


Admittedly preliminary in its nature and limited in its coverage, this volume nevertheless compares quite favorably with MLA’s rather more ambitious effort, *American Literary Manuscripts* (Guide BD211). Entries represent material relating to 3,135 persons in 231 repositories and are not confined solely to British figures (e.g., some Americans are included). The work is presented merely as a finding list of manuscripts (letters, autobiographies, notebooks, diaries, banking accounts, collections of papers) containing information of a biographical nature; no attempt was made to detail the number or content of specific items. An introductory note on biographical research offers some useful tips for the beginner, with references to published and unpublished guides to British sources and a description of procedures for doing research at the National Register of Archives in London.—E.L.


Yet another title has been added to the Marquis company’s roster of biographical dictionaries. This one includes more than 16,000 listings giving “essential biographical data about men and women in all branches of the U.S. Federal government and about a selected list of officials in local, state and international government.”—Pref. Although timed to appear while interest in elected officials runs high, the work will no doubt prove most valuable for its attention to a broad range of nonelective office-holders and appointees. In accord-
ance with the publisher’s well-established practice, the biographical sketches were compiled mainly from information supplied and verified by the biographees; reference value is stated as the basic principle of inclusion. Understandably, there is a certain amount of duplication of information found in Who’s Who in America and similar publications, but the general usefulness of the volume promises to justify its existence. Two extensive indexes enhance this usefulness: one is by “topics” (i.e., by field of specialization of the biographees), the other by government department.—E.S.

**Genealogy**


This bibliography, resembling American and English Genealogies in the Library of Congress (2d ed., 1919; Guide AK15), expands the earlier listing by the addition of newer works and other nationalities, and by the inclusion of all entries from LC’s “Family Name Index” (a card file in the Local History and Genealogy Room), not just its references to monographs. Despite the change in title, names are still preponderantly American and English. Arrangement is by family name with citations (in chronological order) to monographs, journal articles, sections of books not primarily genealogical in nature, and to LC’s unique unpublished genealogies. Liberal use of cross references makes it easy to find information on family names that do not appear in book titles. Users should be aware of the addenda in both volumes and of the fact that some cross references will appear blind because they refer to the main card catalog at the Library of Congress.—R.K.

**Literature**


Although the scope of this work is modern world drama, the compilers have restricted its coverage to English-language materials. As a “selective index to commentaries on modern playwrights and their plays” (Pref.), it concentrates on criticism rather than on play reviews; the latter are cited only when there is little or no other critical material available in English. Over 600 monographs and 200 periodicals were examined to provide the extensive coverage which ranges from a single entry for relatively little known playwrights to fifty pages for George Bernard Shaw. One only wishes that the compilers had explained the criteria for their selections. Arrangement is alphabetical by author with general works listed first, followed by criticisms of individual plays. Two indexes are included, one of critics and the other of play titles; in addition, there is a list of all the monographs indexed. Despite the limitations noted, this will be a useful bibliographic tool for students of modern drama; although not comprehensive, it comes closer to being so than any other bibliography in its specific field.—D.A.S.


Although revised editions of established reference works are not regularly noted in this column, the latest revision of “Thrall and Hibbard” merits an exception: it is now given a new main entry and might be passed over as just another literary handbook. That would be unfortunate, because it is one of the very best works of its kind, offering explanations of terms, concepts, literary schools, and movements. The original edition by Thrall and Hibbard appeared in 1936 and was revised and enlarged by Holman in 1960 (Guide BD32). This new edition, much expanded, includes some 1,360 entries, none of which remains unchanged from the first edition.—E.S.


Designed to be used with the third edi-
tion of the LHUS (1963; Guide BD222), this new supplementary volume covers the period 1958-70 and does not supersede the earlier supplement. Some pre-1958 items previously missed have been picked up and a certain number of 1971 items are included. As with the first supplement, the plan of the original work has been followed and sixteen more individual author bibliographies have been added. Indexing of this supplement shows greater consistency and inclusiveness than that of the third edition, but authors of periodical articles are specifically omitted. It is good to have a careful updating of this standard work.—E.S.


Although the preface indicates that “selections from the vast body of drama, literary criticism and theatrical lore” are included in this work, the emphasis falls on drama as literature and on literary criticism rather than on the theatrical aspects of drama. Coverage is international, but is much stronger for Western countries than for other parts of the world. The entries, arranged in a single alphabet, are for plays, playwrights, countries, and technical terms. Individual play entries provide a synopsis, a brief critical evaluation, and the dates when first published and first produced. Playwright entries chronicle the careers and writings of the subjects and generally conclude with a critical bibliography of works about the playwright. Included are “major” playwrights from the last half of the nineteenth century and “all notable twentieth-century playwrights up to the present time.”—Pref. The work will be most useful for the bio-bibliographical information and for the play synopses. There is a character index and a general index which includes cross references for alternate names of playwrights and plays and for translated titles.—D.A.S.

Sociology


Because the proliferation of material about Puerto Ricans in the United States reflects such great contrasts in experience, the author has arranged this selected bibliography in six sections in an attempt to present the listings in such a way that the juxtapositions may be more readily appreciated and more easily studied. The six parts are: (1) General bibliographies; (2) The island experience; (3) The migration to the mainland; (4) The mainland experience; (5) The mainland experience: education; and (6) The mainland experience: the social context. Of considerable interest are two listings of unpublished materials, one being the “Covello Papers, Personal File” assembled while Leonard Covello served as principal of Benjamin Franklin High School in East Harlem, New York City; the other, New York City Board of
Education materials. An index of names is provided, but none of subjects.—M.M.

POLITICAL SCIENCE


Students of political science and American history will welcome this convenient compilation of state-by-state voting records covering all simultaneous federal biennial contests, special as well as regular, from 1910 to 1970. Tables with explanatory notes list state votes for President, Senators, and Representatives (with columns for the Democratic, Republican, and "other" votes); the percentage each party vote represents; and the average state-wide party vote. The "Representatives" figure is the total party vote, no district data being included since, because of decennial reapportionments, "voting district data are not comparable over a relatively long span."—Pref. All data are statistical; contestants' names are not given. The short "National Voting" section gives country-wide totals in the same manner. Official sources were used wherever possible, otherwise the most reliable unofficial figures were utilized. Preface and Introduction explain methods and sources.—R.K.


With this volume Mr. Craig extends the coverage of British Parliamentary Election Results, 1918-1949 (Suppl. 3C128) through the summer of 1971. Each page of text is devoted to a constituency, with information as to date of election, number of electors, the turnout, names of candidates with party affiliation, number of votes, and percentage of votes cast for a candidate. Most of the statistics are drawn from the Returns of Election Expenses which is issued by the Home Office. Plans call for a supplement to cover the present Parliament "when a major distribution of constituencies will take place. Thereafter an individual volume will be published after each general election containing constituency results on a cumulative basis."—Pref.

A number of publications of recent years combined to provide the student of twentieth-century British politics with easy access to a wide variety of statistical information on elections. In addition to the volumes just noted, there is Craig's British Parliamentary Election Statistics, 1918-1968 (Glasgow, 1968), Kinnear's The British Voter... since 1885 (Suppl. 3C129), and Butler's British Political Facts, 1900-1968 (Suppl. 3C126)—compilations which overlap and complement each other. For example, the Kinnear work has maps picturing the constituency and the distribution of voting, as well as commentary on each election; Craig's 1968 volume shows the numbers of candidates running for each party, costs of elections, public opinion polls, etc.; and Butler's compilation adds a large amount of information on other aspects of the political life of Britain, and includes such unique features as "General election results by region," "M.P.'s changes of allegiances" and "Opinion poll accuracy in election forecasts."—E.M.

HISTORY AND AREA STUDIES


Offered as a preliminary edition (to be revised in the next two years), this extensive bibliography is welcomed by both librarian and researcher. Patterned after Helen Conover's Africa South of the Sahara (Guide DD32), it brings coverage up to 1968/69 and to 1970 for some parts. Materials on Morocco, Algeria, Tunisia, Libya, and Egypt have been excluded. The work comprises four main sections: (1) Guide to research organizations, libraries, and the book trade; (2) Bibliographies for Africa in general; (3) Subject guide in general; and (4) Area guide (by former colonial power, region, and country). The first three sections are further divided by type of institution, type of bibliography, and broad subject category. Annotations are provided for most of the entries; some are critical.
There is an author, title, and subject index.

"In the selection of references [the compilers] have tried to encompass the needs of the undergraduate and graduate student as well as the librarian and teacher/researcher."—Pref. They have done an admirable job, and this comprehensive list of major reference books, serials, and key monographs is a must for academic and large public libraries.—J.S.

Encyclopaedia of Papua and New Guinea. Peter Ryan, gen. ed. Melbourne, Australia: Melbourne University Pr. in association with the University of Papua and New Guinea, 1972. 3v. il., maps. $80.

Area specialists and anthropologists alike are sure to find this an interesting and useful work. As a regional encyclopedia it concentrates on the persons, places, and terms important to the area, and on the historical, physical, social, cultural, religious, political, and economic topics relative to that area. Articles are signed and most include bibliographic references. Although the work is intended for the intelligent layman, articles of fairly restricted interest are apt to be addressed to the specialist. The range of entries is as fascinating as it is wide; illustrations, maps, and tables are numerous; and bibliographies exhibit a careful selection of both older and recent publications. Initially the entries for indigenous peoples seem disappointing indicating only the geographical location, but the bibliographic citations which follow offer a scholarly approach to the study of these peoples, and the index entries in v.3 provide references to their distinctive traits and variations in customs as related in the general and specialized articles. The index volume also includes a folding map and a gazetteer listing all the place names in Papua New Guinea (the new unified name for the former Territory of Papua and the former Trust Territory of New Guinea.—E.S.


Whereas recent scholarship in African studies has produced a wealth of bibliography concerned with today’s Africa, this work covers the period preceding European conquest, presenting the “raw materials for a new history of Africa.” It is designed to “give an indication of the vastness of the [primary] sources” (Intro.) as well as to supply a useful reference book in African bibliography. To these ends, catalogs of the great library collections of African materials were searched and older journals examined. The result is a list of more than 7,000 nineteenth-century accounts, both books and articles, concerning Africa exclusive of the Muslim North and the Afrikaner South.

After a list of bibliographies and a general section, arrangement is by large area, subdivided by country, then alphabetic by author. Full bibliographical information is given for each citation; there is an author index. Annotations would have made the work more valuable, but would also have delayed publication indefinitely. Unfortunately, many of the article titles give no clue to specific contents; this is especially true of the voluminous mission literature cited. The work is noted as being unedited and is distributed in this form for the sake of speed and economy. Minor errors and inconsistencies that normally would have been corrected in editing are present, but the value of the work is obvious.—R.K.


In his foreword to this work Professor W. S. Shepperson has pointed up the problems of historical research by humorously suggesting that historians get library science degrees before taking history courses. Ms. Poulton took her degrees in reverse order, so she is very much aware of the special problems of the historian. She has produced a very readable guide, discussing such matters as the card catalog of a research library, interlibrary loan, government documents, and primary sources. And she
has listed important tools for approaching biographical materials, serials and newspapers, and statistical and legal sources, as well as the manuals and bibliographies of history. There is a title index and a general index of authors and topics.

The handbook is strongest in its identification of resources for English and American history; not quite as detailed for other European areas; and rather sketchy for the rest of the world. One could, of course, quibble and wish for the inclusion of additional reference works such as W. S. Jenkins's Guide to the Microfilm Collection of Early State Records (Guide DB35), as well as more detailed instructions for using locational devices such as the National Union Catalog. (The 1956-67 cumulation of NUC is not even listed.) However, since all historians have some of the same problems, they will find many of the chapters very instructive. Reference librarians are sure to find the handbook highly useful, and the simultaneous publication in paperback and hard-cover makes the work more accessible to the student.—E.M.

ENVIRONMENTAL STUDIES


Conscious of the difficulty the layman has experienced with the jargon of environmentalists, Paul Sarnoff, Ecological Projects Consultant at Hofstra University, has compiled this glossary for the popular audience. He points out that one of the greatest problems with this new “language” is that the study of the environment is multi-disciplinary and draws on “related scraps of knowledge” (Pref.) gathered from the various natural, physical, and social sciences. For the most part the entries are short with numerous “see” references. The concepts are well illustrated with diagrams, photographs, graphs and tables; sources of these illustrations, however, are not often cited. Apparently for Mr. Sarnoff the public’s understanding of the technical aspects of environmental problems does not suffice, and many of the entries in his dictionary serve to illuminate the social implications of environmental pollution left unchecked. Object lessons abound in unexpected entries such as “Man,” “Nature’s Mistake,” “Tennyson on Pollution Control,” and “Unthinkable Thoughts.” On the whole, the work is timely, informative, and entertaining: one may be more inclined to read it than refer to it.—B.W.

REFERENCES

1. Diane Goon, Rita Keckeissen, Eileen McIlvaine, Mary Ann Miller, Nancy Schroeder, Doris Ann Sweet, Barbara Wendell; School of Library Service, Evelyn Lauer; International Affairs, Janet Schneider.

   Supplement I (Chicago: ALA, 1968);
   Supplement II (Chicago: ALA, 1970);
To the Editor:

Now that was a nice little jeremiad at the start of the last CRL. You must mean it when you say that there are too many librarians about (after all, the English were saying as much at least five years ago). Just the same, whittling the number down, while this would cure the population problem, isn't likely to help libraries much in coping with the nonstop demands being placed upon them nowadays for more and better service. Obviously we face an impasse. Your indicating the size and obstinacy of the impasse doesn't do any harm, I suppose, but certainly makes for depressing reading. And your parting shot—that the glutted job-market will bring down our already deflated salaries—well, there's enough dreariness in that to have anyone wringing his hands. But away with handwringing. What we need now is some good, solid tearing of hair and gnashing of teeth. The old sackcloth-and-ashes bit, you know.

Peter Gelletly
Serials Librarian
University of Washington Libraries
Seattle, Washington

To the Editor:

Hopefully, we can follow the course you recommend in a recent editorial (CRL, Sept. 1972) and can reduce the flood of library school graduates. Perhaps, though, we need to be concerned with the general problem of employment in this country, not just in library science. It may be that in the long run only a national approach with legal force will be effective. One does not have to believe in a command economy to envy the East Germans just a bit. David Childs, in his East Germany (New York: Praeger, 1969), quoted a statement dating from 1965 which indicated only students who were interested in fields where a demand existed could expect admittance to institutions of higher education (p. 187). The object was to ensure that the numbers of graduates and jobs balanced. Interestingly, library science was mentioned as one of the areas where prospects were bleak.

Benjamin R. Beede
Assistant Law Librarian
School of Law Library—Camden
Rutgers University
Camden, New Jersey

To the Editor:

David Kaser's very fine "Whither Interlibrary Loan?" (CRL, Sept. 1972) will hopefully stimulate the profession to find ways to prevent the collapse of our loosely hinged, mostly cooperative, nationwide interlibrary loan structure.

I hope that the "... growing desire to free up rather than restrict the flow of materials of Scholarship ..." will be strong enough to counter managerial inclinations to shut down the interlibrary system based on an increasingly acute awareness of the "... full magnitude of the cost of interlibrary lending . . . ."

By the way, it's not only the world of scholarship which is potentially affected here. Our entire national information delivery system will be affected to the extent that we fail or succeed in finding ways to maintain and improve the interlibrary lending system.

Frank Van Zanten
Director
Tucson Public Library
Tucson, Arizona

To the Editor:

As always, on the first reading of an Ellsworth Mason opus, I enjoyed "A Short Happy View of Our Emulation of Faculty."
Then, as nearly always seems to be the case with Mr. Mason’s writings on topics which do not deal with library buildings, I went back to review the article and found it misleading, rhetorical, and, in essence, almost useless to help us in our current dilemma. The dilemma I am referring to, of course, is whether or not to fight to get or keep faculty status and rank, in the present state of the library profession and in the present state of the academic teaching profession.

I believe that Mr. Mason’s facts are consistently wrong in this editorial, and his conclusions, therefore, must necessarily be wrong. In the first place, it is absolutely not true that “in any university of quality, this means no promotion above the rank of instructor without a Ph.D. degree.” I challenge Mr. Mason to give me examples of even a very few institutions where this is true. Secondly, it cannot be a fact that the present crop of college teachers are “opportunists,” who have very low standards of classroom performance and grading, and at the same time be true that we must compete with “high-powered academicians. . . .” What Mr. Mason seems to want us to do, as academic librarians, is to meet some kind of undocumented standards which exist only in his mind and govern the typical teaching faculty member. I have been involved with academic libraries over a period of nearly thirty years, and, although my actual experience is mostly at this medium-sized university, I think that I have been around sufficiently to be a fair judge of what has gone on and is going on in both our profession and the academic profession.

I believe that the new Joint Statement is a good one, and, like all such statements, may well be capable of some modification as experience warrants. But it is an extremely good starting point, and should help the academic librarians and the college teachers to get together on at least a modus vivendi basis, for the foreseeable future.

One last point about Mr. Mason’s editorial: it seems to me that to say that “the only faculty benefit denied librarians is a longer vacation” is about like saying the only things lacking in the Venus de Milo are two arms. I, for one, find it extremely distressing to have to spend approximately one-sixth of my working life at the same old grind, while my confrères, who are no more capable of handling their particular jobs than I am of handling mine, are gadding about for two months each summer and for periods between semesters, while I must keep my nose to the grindstone. I do not see that it is at all a fair salary trade that librarians be paid as miserably as most of us are in relationship to standards for teaching faculty, as a sort of recompense for not having to follow the “publish-or-perish” and the tenure-or-sink syndromes, as he suggests. As a matter of fact, the latter part is not true at Idaho State University, and, I believe, not true in most institutions of higher learning in this country which do give faculty status and rank. Tenure rules do apply to both professional librarians and teaching faculty, generally.

Sometime, Ellsworth, I would like to have you deliver a statement without being so damned oracular and positive about it! Or do I feel that way because I have some of that tendency myself?

Eli M. Oboler
University Librarian
Idaho State University
Pocatello, Idaho
BOOK REVIEWS


This book is one of the products of a contract initiated by the Automation Task Force of the Federal Library Committee, sponsored by the U.S. Office of Education, and carried out by the System Development Corporation. It presents the results from a questionnaire survey made in 1970 to identify those federal libraries with operational automated systems or with plans to create one. In addition to that data, the book provides descriptive material and guidelines for evaluation and development of automated library systems.

Turning first to the results of the questionnaire survey, a total of 67 libraries out of the worldwide community of over 2,100 federal libraries reported that automation projects were either operational or planned. Of those, 59 provided sufficient detail in response to the questionnaire to be described in the book and, of those, 33 were in the Department of Defense. The description in each case includes the following data: person to contact for information, functions automated and the current status of them, background to establish context, description of system materials and parameters, equipment hardware and software, documentation, references, and future plans. These data are presented on pages 157 to 288 in a sequence roughly by major federal agency (Agriculture, DoD, HEW, HUD, etc.). Special attention is paid to the three national libraries on pages 289 to 293. Summary tables give the reader an overview of locations, agencies, applications, and parameters. Indexes are provided to the detailed listing which serve for access by type of system and equipment, and systems with special features. As a comprehensive summary of specific library automation efforts, this portion of the book serves as a useful reference.

The guidelines for evaluation include a "guide to feasibility assessment" which discusses the general evaluation of need, of equipment availability and suitability, of personnel resources, of budget, of local attitudes, of file conversion, of planning needs. More specific guidelines are presented for each of the major functional areas of application—cataloging, acquisitions, serials, circulation, reference and bibliography, administration. "System development guidelines" present issues in system planning and management, systems analysis and design, and system implementation.

The descriptive material covers a potpourri of topics: automation programs in nonfederal libraries, machine-readable data bases, commercial services, use of microforms, input/output hardware, recommended reading.

The unique contribution of the volume would seem to lie in its summary of automation projects in federal libraries since the other material, on system evaluation and on topics peripheral to the primary discussion, seems to duplicate what has been covered in several other monographs. It will, therefore, have primary value to those who are reviewing the overall progress of library automation and to those looking for examples comparable to their own situation.

—Robert M. Hayes, Becker & Hayes, Inc.


This reviewer's reaction to the book was one of ambivalence and, in some ways, disappointment. King and Bryant have made an impressive effort to delineate both a model and a methodology for the evaluation (including experimentation) of information transfer systems which "... record and transmit scientific and technical knowledge by means of documents. . . ." Such
systems are defined by the authors as those dealing "... with all functions and processes necessary to complete the transfer of documents from authors to users ..." (p. 1).

The authors are well-known consultants in the fields of library management, documentation, and the design of information systems. Both are associated with the prestigious Westat Research Inc. and are well qualified for the task they have set themselves of providing guidance in "... what to measure, how to measure, and how to interpret the results ..." (Preface).

Although the book is well organized, it is both difficult to read and demanding. In their Preface the authors state that the book was written expressly for the inexperienced student and evaluator; nevertheless, complete understanding by the reader will require an acquaintance with the fundamentals of many disciplines. The authors have used basic concepts from such disciplines as statistics, economics, probability theory, and systems analysis.

The major thrust of this book is toward the development of a methodology for the analysis and measurement of document transfer systems. Measurement as used here is "simply quantification ..." (p. 8). Yet the authors are careful to point out that system "... performance is a composite of many things, some easily quantifiable and others almost impossible to quantify ..." (p. 9). This is an important point and it is well that the authors bring it to the reader's attention early for the remainder of the book is quantitative in emphasis with the possible exception of chapter 10 on "User Surveys and Marketing Research." In this chapter the basic techniques for interviewing, performing user surveys, and conducting marketing research are discussed. Marketing is a field of great importance to the information scientist and the authors could have strengthened their presentation by including some techniques for attitude scaling, such as Osgood's semantic differential.

King and Bryant have succeeded in presenting a theoretical model for a document transfer system. How close this model approximates real life is a moot question. The traditional weaknesses of such models have been their tendency to oversimplify and to dichotomize. Yet the reviewer felt the models used in the text did not suffer seriously from either problem, with the possible exception of the retrospective searching model. Here the model did seem contrived and overly rigid in its insistence upon a fixed sequence of events. Nor was it clear how the model handled the iterations necessary to reach an acceptable level of response between a system and user if the analyst (coder) who places the request in the system language must do so before seeing the test documents. The experience of the reviewer has been that the documents themselves will often serve to sharpen the request in a synergetic relationship between user and system.

While most of the mathematical modeling appeared to be rigorous and based upon sound assumptions, the methodology proposed for studying the information (document) transfer process left something to be desired. King and Bryant's methodology suffers both from occasional lapses and some obvious typographical errors. For example, the standard normal distribution has a mean of 0 and a standard deviation of 1, not a mean of 9 and standard deviation of 1 as page 254 suggests. And on page 45 the word binomial has been substituted for binary. Of a more serious nature is the suggestion by King and Bryant that "... Depth interviews can be expected to take around one-half day each ..." (p. 243). The reviewer knows of no interviewer who would undertake to hold a respondent's attention for a half-day, and most trained interviewers recommend against allowing the interview to last longer than one hour. Nor can the reviewer agree that "... the group (interview) provides a climate of emotional support that permits expression with complete candor ..." (p. 238), or that diaries should be classified as questionnaires. The latter are useful tools for the study of information systems, but they remain intrinsically different.

The book has succeeded in outlining a detailed methodology for evaluating a document transfer system and represents the distillation of many project years of experience at Westat in the evaluation of bibliographic services and their products. As such it will be of interest to a much broader spectrum of reader than the librarian, and it is unfortunate that the library administration...
tor was not made an explicit as well as implicit member of the audience.

It is interesting to note that many of the views expressed by King and Bryant are not those of the traditional librarian and demonstrate a professional liberalism more characteristic of the information scientist than the librarian. For example, King and Bryant feel that "... it is not important whether the facility under evaluation actually possesses the requested documents—only that its response time and certainty of retrieval be at acceptable levels ..." (p. 51).

The reviewer found the planning diagram for a retrospective search experiment, the six basic functions involved in a document transfer process, and the authors' insistence that to evaluate document transfer systems one must derive both performance figures as well as study failure, all typical of the very basic insights the authors share with their readers and refreshingly simple in application.

In addition to their difficulties with the methodology, the authors also experienced some difficulty in their understanding of the information product itself. For example, they state on page 56 that "... an important information product in document transfer systems is published recurring bibliographies which may be used for either current awareness when initially sent or retrospective searching purposes at a later point in time ..." Such a statement is quite misleading, since use of a recurring bibliography as both current awareness and/or retrospective tool depends upon a factor not discussed in the text, namely the ability of the bibliographic tool to cumulate itself. Or at another point the authors state "... there is some evidence that users can predict the number of documents which satisfy their requirements ..." (p. 116). The reviewer finds it difficult to accept this statement. The reviewer is also uncomfortable with the authors' statement that "... the richer the entry vocabulary developed, the less the intellectual burden on the indexer, and the greater the economies in the indexing operation ..." (p. 152). If the word richer, as used here, implies a greater number of indexing terms and hence a larger file, it may or may not be more effective (depending upon the care with which the terms were chosen). Such a file cannot be more efficient to use or maintain, however, because of its increased size. The result is neither greater economy nor a lessening of the intellectual burden on the indexer.

The most serious quarrel the reviewer has with the authors concerns their discussion of costs and the lack of consistency in their treatment. Cost is a recurring theme throughout the book and an area in which the authors are clearly at home and well qualified. Nevertheless, their discussion would have been greatly strengthened had they been able to present a uniform approach to the study of costs. In chapter 9 costs are spoken of as the measure of resource consumption or the "... using up of certain resources ..." (p. 218), while earlier costs are considered to be the "... input of resources to a system in terms of monetary units ..." (p. 11). The difference between input and consumption may appear slight but to the reviewer it represents a philosophic shift which drastically affects the entire costing process. This discrepancy was later pointed out by the authors on page 230 and is due, at least in part, to the fact that chapter 9 was prepared by a different author (Wiederkehr) with a different point of view.

King and Bryant's measuring of costs with dollars is regarded by the reviewer as much too restrictive. To measure system costs only in dollars is to severely limit comparisons between, as well as within, systems. Indeed, the reviewer questions the comparative value of dollar costs in any system for the following reasons: a reader wishing to use these figures to compare his system with another cannot do so until he knows something of the methodology by which they were developed, the period when the figures were taken (how old they are), or the place (geographical location) where the costs were in effect. The reviewer feels that measures of search effort using time or number of documents examined rather than dollar costs are much more appropriate and sensitive as indicators of resources consumed.

In conclusion, this reviewer would characterize the book as a successful initial attempt to codify a formalized methodology for the study of document transfer systems. It needs some fleshing out and some sharpening of methodology, but it is nevertheless
a good first step. More discussion on the use of specific analytical tools (Latin square design, regression analysis, marketing research techniques, etc.) would have added immensely to the text. Sections 12.4 and 13.1 on elementary statistical measures and experimental design should be moved to the front of the book. These are prerequisites if the reader is to fully grasp what he reads. It would also have strengthened the ties between author and reader if someone with a background in the traditional disciplines of library science (cataloging, reference, acquisitions, etc.) could have been allowed to comment on the manuscript before publication. Aside from those points mentioned earlier the methodology is basically sound and a second edition should see a further refining of both the strategy and tactics for studying document transfer systems. The book is strongly recommended to the experienced systems person having no previous background in document transfer systems, as well as to the beginning library analyst or administrator with sufficient background (calculus, economics, systems analysis) who needs assistance in planning the experimental design for a systems study.—Robert W. Burns, Jr., Colorado State University, Fort Collins, Colorado.


A news story from South Africa a couple of years ago reported the case of a civil servant named Sylvia who underwent a series of sex change operations, switched to the name Andre, and upon returning to work medically certified as a male, received an immediate pay increase.

Less bizarre, but possibly more startling because they occurred here under our laws, are the patterns of sex discrimination revealed in these U.S. Senate subcommittee hearings on the Equal Rights Amendment (ERA).

Testifying in May 1970, witnesses pointed to the legal distinctions between men and women for jury service (women in only “28 states . . . serve under the same terms as men”); and to differing penalties for men and women who commit identical crimes (“the legislative rationale seems to have been that it required longer to rehabilitate a female criminal than a male”). Another of many illustrations was the double standard for admission to certain state educational institutions (during one recent period 21,000 women were turned down for admission to the University of Virginia, while not one male was rejected); and in some states “women attain the age of majority at 21, while men attain majority at 18.”

The ERA says simply: “Equality of rights under the law shall not be denied or abridged by the United States or any State on account of sex.” At one sweep, the measure would declare men and women equal before the law. “Even if the equal rights amendment did nothing but state the principle,” declared witness Caroline Bird, “it would be worth it.” Yet both opponents and proponents agreed that constitutional adoption would affect a substantial array of federal and state laws, including the draft and a large body of family law and protective legislation whose benefits and obligations are applied selectively, to one sex or the other.

Major controversy centered around ERA’s ramifications for protective legislation. This covers wages and hours and other working conditions such as rest periods, seating provisions, weightlifting limitations, etc. Advocates of the amendment strongly urged the extension of these laws to men, but viewed the protections as “restrictions” on opportunity when applied to women only. Basically, proponents of ERA preferred to risk the possibility that it might eliminate such legislation than to qualify ERA in any way. Representing labor’s objections however, one AFL-CIO witness summarized labor’s serious concern that “enemies of labor legislation powered by a combination of middle class feminists and employers, could speedily wipe out all forms of protections afforded specifically to women, whether they are ‘restrictive’ or not . . ." A majority of the labor movement has firmly opposed ERA from the start, al-
though the hearings include some testimony in support.

A momentary glance backward to Melvil Dewey's nineteenth century justification of unequal pay for equal work indicates how the concept of protection has been used to women's disadvantage. Referring to librarians, Dewey claimed that since man, in contrast to woman, can in an emergency lift a heavy case, or climb a ladder . . . or can act as fireman or do police duty, he adds direct value . . . Woman . . . almost always receives, whether she exacts it or not, much more waiting on and minor assistance than a man in the same place and therefore, with sentiment aside, hard business judgment cannot award her quite as much salary.

Although this argument is rarely used today, in practice its consequences endure, and its philosophical underpinnings remain tenacious. (If anyone doubts this, just read some of the testimony in this volume, or turn to page 527 where a senator quotes Kipling on motherhood.) The ERA would undoubtedly help to shake loose this Victorian holdover.

Throughout the May 1970 hearings there were lively and dramatic interchanges, and sections of the testimony bear out the editor's introductory suggestion that the congressional committee room is "an authentic source of American theater." Some of the scenes are as revealing as the official documents.

The preface states: "Our purpose in publishing this volume is to make accessible to the public in a hardcover edition the record of influential government operations, to make obtainable what might otherwise be ignored." A commendable ideal! But priced at nearly four times the $3.25 original, this edition may be ignored, too.

Edited by a Barnard English professor in conjunction with Congressional Information Service, the book is, essentially, a somewhat shortened reproduction of the 800-page hearings with a reorganized plan of arrangement, and a few additions. It preserves most of the original text, including the occasional typographical errors. Unlike its model, in this edition the complete oral testimony is brought together in one, smooth-running flow, and most of the documentary material is reassembled in a separate section organized in pro and con sequences. Deleted are those documents and statements the editor deemed repetitive, along with almost all of the prepared testimony (about 200 or so pages, all told). The result is a much more readable volume, whose essential content has, with a few exceptions, been maintained.

The revised and added indexes however, lack the important identifying information about witnesses and documents provided in the original; and because of the rearranged textual sequence, more link-up between documents and documents and testimony is required than these indexes supply.

First introduced in 1923, shortly after the 19th amendment extended the vote to women, an equal rights amendment was introduced again in nearly every subsequent session of Congress. The hearings reprinted in this book contain the first legislative testimony on the amendment since 1956; but it is unfortunate that the otherwise informative introduction does not mention later relevant hearings which took place before this book was completed. Hearings were held by a Senate committee in September 1970, and by a House subcommittee in March and April 1971. However, the editor does include some colorful excerpts from the Congressional Record not in the GPO edition, which neatly convey the character of the longer range ERA controversy. Approved by Congress forty-nine years after it was first introduced, the constitutional amendment now awaits ratification by the states.—Anita R. Schiller, University of California, San Diego.


Of the three parts to Hyman's Access to Library Collections—a "documentary analysis," a definition of browsing and browsability and a "questionnaire analysis"—only the definitions are of sufficient substance to bear study. The documentary analysis merely rehashes at intolerable length the century-old arguments of librarianship, especially classification theory. Hyman's intentions were to bring together a great deal of literature on the various questions of librarianship rel-
relevant to direct access, and presumably, through the insights of past writers, to bring a focus upon our problems today. Unfortunately, although a thorough and annotated literature search is provided, the lack of restraint or selectivity in assembling the material serves only to smother and diffuse the issues. (There are ninety bibliographical footnotes for the chapter "Sociology of Direct Access," Bliss is quoted or cited thirty-two times in the book, and a single quote from Matthews appears in three separate discussions.) Hyman perceptively notes:

... the problems related to direct access are peculiarly obdurate, and... one might through any representative sampling of past studies, reconfirm their pervasive and still largely unresolved nature.

It is in the definitions of browsing and browsability that we encounter Hyman's own contribution to the book: "Browsing is that activity, subsumed in the direct shelf approach, whereby materials arranged for use in a library are examined in the reasonable expectation that desired or valuable items or information might be found among those materials as arranged on the shelves," and "browsability" is "that characteristic of an open-shelf collection resulting from the arrangement of a library's materials" that permits browsing.

The first problem with Hyman's definitions is that they are neither based on nor lead to a solid theoretical discussion of browsing. Such characteristics of browsing as the type of collection involved and the motives and habits of the user, not specified in the definitions, are incompletely discussed in the text and are perfunctorily run through in the questionnaire. The failure to discuss what can be affirmed about the relationship between a user and an open-shelf collection, what could be supposed about such a relationship and what must be left, perhaps forever, unanswered is a fatal flaw in the book. For indeed this relationship varies with each user and collection; to discuss it in only the most generalized way is to forsake the question of browsing for the problems of library management.

For Hyman the key to browsing is the arrangement of the collection. Although he states in the introduction that the direct shelf approach involves "every major concern, theoretical and practical, of librarianship," his emphasis is on such questions as "printed or card catalogs; broad or close classification; relative or fixed location; regional or union catalogs; classified or dictionary catalogs." Indeed, much of the book seems less an attempt to show that browsing involves all aspects of librarianship than to show that cataloging and classification do. This leads to the second main problem with Hyman's definitions: he has failed to challenge his own basic assumption that order is essential to browsing. Polling other librarians (via the questionnaire) on whether or not arrangement is essential to browsing does not provide that challenge, as most librarians operate on that same basic assumption. Since the hypotheses that Hyman is "testing" in the questionnaire are some of the very tenents of librarianship for most librarians, the general agreement with them does not show that these statements are accurate; it merely shows that they are generally accepted. Hyman offers no evidence to dispute an opposing theory (e.g., that arrangement serves no purpose in browsing), and therefore the verdict on whether or not arrangement (and therefore classification) is essential to browsing would have to be: Not Proven. Since the contention that arrangement is essential to browsing is both Hyman's greatest concern and the book's only substantive assertion, one could not recommend this book as a thoughtful or thought-provoking work on browsing.—William Chase, Librarian, East Lyme High School, Connecticut.


Perhaps the most striking thing about this book is that the subject of current national bibliographies of the countries of the entire continent of South America, Central America, Mexico, and the islands of the Caribbean can be competently presented in 139 pages.

Another very interesting feature of this work and one which is characteristic of
bibliographical activities in Latin America is that it gives one the feeling that Dr. Irene Zimmerman has first-hand acquaintance with the state of these bibliographies and the people who are producing them. And indeed she does in most cases. As the notes indicate a considerable amount of the necessary information was gained through personal correspondence. This is no finding list of national bibliographies by countries but includes an account of the bibliographical activities surrounding them.

The relative brevity of the book can be explained by the fact that of the twenty-five countries considered, as of 1969 ten of them had no current national bibliographies, and in several others, the bibliographies were of only recent origin or were issued at irregular intervals.

Much of Dr. Zimmerman's information is drawn from working papers presented by librarians from the respective countries at meetings of that truly remarkable institution known as the Seminar on the Acquisition of Latin American Library Materials (SALALM). For several years the annual meetings centered around the bibliographical activities of the various countries of Latin America and the working papers presented there often constitute the best description of current bibliographies of these countries available in any literature. Although the geographical area involved is immense, the relatively small group of Latin American bibliographers form a group which is almost unique in its cohesiveness and devotion to purpose.

An insight into the "state of the art" in several countries is provided by the author's statement that in some instances for the present at least, the best record of current publishing in some of the countries in Central America and the Caribbean exists in the published acquisitions lists of some of the institutions with Farmington plan responsibilities for certain countries. She urges that additional such lists be provided.

This statement, made as recently as 1969, by someone with as wide a knowledge of Latin American bibliography as has Miss Zimmerman, would seem to give those of us concerned with bibliographical control food for thought.

This is a valuable book. There are chapters on each of the countries of South and Central America and Haiti and the Spanish-speaking countries of the Caribbean. The British West Indies are treated as a group. There is a very interesting section on the Caribbean as an emerging entity. This is Dr. Zimmerman's special field and it is not surprising that there is an excellent account of the efforts of the librarians of the Caribbean to support the Caribbean Regional Library in Puerto Rico and its Current Caribbean Bibliography. The aim of the library (which is based on the former Caribbean Commission Collection) would be to collect all publications of this diverse group of island countries and to record the acquisitions in a computer based bibliography. Both the library and bibliography have led troubled lives. They are, however, so important to the region that the reader cannot but hope that they will be placed on a sound footing. In fact, as one reviews this volume in his mind he becomes aware of the tenuousness of the national bibliographies in many of the countries. So much needs to be done and there are so few to do it.—Stanley I. West, University of Hawaii, Honolulu.


At first glance, this is a pleasing book: Instead of presenting assorted essays, the author has connected his selections with a running commentary that turns the anthology into one coherent text. The large type on heavily coated paper can be read by tired eyes, and the blue linen covers seem sturdy enough to last for centuries.

This, however, is all that is commendable. The title (and there is no subtitle) does not reveal the scope, which is limited to the preprinting period of librarianship, from the seventh century B.C. to the fifteenth century A.D. The selections, including the author's own essays, combine many familiar accounts from the general history of that period with some often repeated library lore. We read about "the imagined charms of Helen of ancient Troy, her hyacinth hair . . ." and are told that "Greek civilization flamed for a few centuries in Athens and distant Alexandria and Syracuse" but we learn hardly anything about
libraries. The only worthwhile pages (three) are excerpts from Richard DeBury's famous Philobiblion. They give the flavor of DeBury's times and convey his concern about books.

In his essay on Alexandrian Libraries Dunlap mentions Callimachus' Pinakes, but he neither describes them, nor do we learn about the contributions of the Alexandrian Librarians to the production and organization of documents, which are of such amazing actuality today.

About the Middle Ages we read at best some details of monastic book production, but the library development of the Carolingian period remains totally dark. The Petrarch selection is taken from Mary Elton's The Great Book - Collections published in 1893, when much of the currently available Petrarch material was not known.

The obsolescence of the book is also reflected in the bibliography: Of the twenty-six titles from which the author has taken his selections, twelve have been published prior to World War I. In addition, the bibliography is incomplete, since it does not include the great number of sources which are quoted in the authors own essays and his commentary.

Only one of the nine illustrations shows a library. The others show a few writing utensils and famous authors. Among the latter is a charming picture of a round-headed St. Jerome in his cell, nonauthentic, of course, and reproduced with a blur. For five pictures the sources are identified.

I understand that a practicing and highly respected librarian retains a love for history, and that he wants to share what he has collected in "innumerable hours of browsing and gleaning" in the "extensive collection of the University of Iowa." I do not understand a publisher who accepts a manuscript that shows neither adequate knowledge of the subject, nor the information currently available. The only purpose of this book is the setting of a sad example for what should not be perpetuated in library literature.—Antje B. Lemke, Syracuse University, School of Library Science.

Palmer, Richard P. Computerizing the Card Catalog in the University Library; A Survey of User Requirements. Little-

This book is the result of work done by Dr. Palmer on a dissertation for the Doctor of Philosophy degree at the University of Michigan. I think the title of the dissertation (User Requirements of a University Library Card Catalog) more aptly describes the content of the book than does the title of the printed book. There are several typographical errors in the text. Having made the negative comments, there is much positive comment to make.

Dr. Frederick H. Wagman, director of University Libraries, University of Michigan, requested Dr. Palmer to undertake a use study of the union catalog at the University of Michigan for the purpose of determining what data elements now appearing on a catalog card would be necessary in a computer catalog in order to satisfy the users' requirements.

Dr. Palmer proceeded to do the study by reviewing twenty card catalog use studies and two surveys of use studies. Each of these studies is listed and synthesized under the headings "Purpose," "Methodology," "Relevant Findings." This section of the book is very useful as a research tool for persons interested in the use of the card catalog studies that have been done.

The remaining sections of the book consist of a report of methodology used by Palmer in his survey, the findings, and the conclusion.

Dr. Palmer has made a valuable contribution to the body of literature available on the use of the card catalog. Kenneth Shaffer, in his introduction to the book, states:

"Dr. Palmer's findings . . . , are startling. He learned that 84 percent of all users found what they were seeking in the catalogue, and that a preponderance of catalogue use was by graduate students. Again, the preponderance of use of the catalogue, 70 percent, was for known-item searches, a statistic which he points out is higher than was found in previous studies. But paramount to his principal objective, he found that 84 percent of those who used the card catalog during the survey period would have found a five-item computer catalogue sufficient. [The five-items looked for most frequently were title, author, call
number (including location), subject heading, date of publication.] If a contents note were added to make a sixth-item, 90 percent of users would have found a computer catalogue sufficient for their purposes.

The above statement sums up the major points of the study relevant to a computerized catalog. The complete study, however, contains a great deal more information that will be of interest to catalogers, reference librarians, library administrators, and all librarians concerned about the usefulness of the card catalog.

Dr. Palmer has been absolutely honest in his text about the relevance of his study to computerizing the card catalog. He admits that his study does not answer a number of questions that must be answered before we can make wise decisions to develop reduced-data records for a computer catalog. He strongly recommends that much additional research and a great deal of costing be done before decisions are made. Some of the questions he poses are (1) Would the cost of adding certain information to a computer catalog be offset by increased benefits to the user? (2) Is the most economical place to provide certain types of bibliographical information in card catalogs, book catalogs, bibliographies, or in the materials themselves? (3) Is the value of certain catalog information to a small number of users, such as faculty [faculty reported using a greater number of data elements on catalog cards than other groups of users] so great that the information must be included in future catalogs, regardless of the catalog’s type or configuration? (4) Should only a portion of the catalog be computerized?

In short, Dr. Palmer has provided us with a useful compilation of card catalog use studies, a valid catalog user study that is meaningful because the methodology employed was sound, and a discussion of what we will have to do before making decisions regarding computerizing catalogs.

Dr. Palmer does not touch directly on all the facets of the computer catalog question, but his book does bring to mind such questions as (1) How complete must the catalog record be? What data must be included? (2) What is the relationship of the national bibliographic record to the local in-house bibliographic record? Should these duplicate each other or can they compliment each other? Should they both be in machine-readable form? (3) Is the catalog a research tool or a location/identification tool? (4) How relevant is the experience of the National Lending Library of Great Britain to us? (The user is required to consult printed bibliographies issued by bodies other than the National Lending Library to identify books before requesting them.) (5) Should we in North America adopt the same philosophy as the British regarding retrospective conversion of catalog records? (The BNB MARC records begin at a given time and will be developed from that time forward. No effort will be made to convert catalog records earlier than the determined date. The user will have to use the printed bibliographies or the card catalog for pre-MARC records.)

I recommend Dr. Palmer’s book as a useful and thought-provoking contribution to the existing body of card catalog literature.

—Ralph E. Stierwalt, University of Western Ontario, London, Ontario, Canada.

OTHER BOOKS OF INTEREST TO ACADEMIC LIBRARIANS


Temple University. Pollution and the En-

The following abstracts are based on those prepared by the Clearinghouse for Library and Information Sciences of the Educational Resources Information Center (ERIC/CLIS), American Society for Information Science, 1140 Connecticut Ave., N.W., Suite 804, Washington, DC 20036.

Documents with an ED number may be ordered in either microfiche (MF) or hard copy (HC) from ERIC Document Reproduction Service, LEASCO Information Products, Inc., P.O. Drawer O, Bethesda, MD 20014. Orders must include ED number and specification of format desired. A $0.50 handling charge will be added to all orders. Payment must accompany orders totaling less than $10.00. Orders from states with sales tax laws must include payment of the appropriate tax or include tax exemption certificates.

Documents available from the National Technical Information Service, Springfield, VA 22151 have NTIS number and price following the citation.


The National Serials Pilot Project, Phase II of the National Serials Data Program, is described. Utilizing the MARC format for processing serials, the objectives were: (1) to create a machine-readable file containing live serials in the fields of science and technology; (2) to produce a number of preliminary listings; and (3) to produce one or more written reports covering procedures, problems, and results. Data were input via an administrative terminal system to a 360/40 computer; processing of data was done on a 360/50 computer. Among the conclusions and recommendations are: (1) a national serials data bank in machine-readable form is both technically and economically feasible; (2) such a data bank should have its own machine-readable authority file for corporate names; (3) input and output in upper case only would be more satisfactory from both the systems viewpoint and the cost viewpoint, but probably would not be accepted by the library community; and (4) serious consideration should be given to the question of applicability of existing cataloging rules in the determination of main entry in a machine-readable file.


Contained in this report is a detailed summary of legal and voluntary certification plans for public librarians in each of the fifty states. Descriptions of the certification plans for public librarians are based on information supplied by state agencies in September 1971. Each plan is identified by the descriptive terms—mandatory, permissive, or voluntary. Mandatory certification is required by state law. Specific penalties for failure to comply are included in the statutes and codes of some of the states. Permissive certification is sanctioned by state law, but not compulsory. Voluntary certification has no legal basis, and is generally sponsored by a state library association. States which have no certification law or plan are also listed.

Library Orientation; Papers Presented at Annual Conference on Library Orientation (First, Eastern Michigan University, May 7, 1971). Sul H. Lee, ed. East-
ern Michigan University Library, Ypsilanti. 1972. 50p. (ED 063 004).

On May 7, 1971, the Eastern Michigan University library was host to the first annual conference on Library Orientation for Academic Libraries. The purpose of the conference was to explore solutions to such problems as: how to motivate students to use the library, how to teach proper methods of research, and how to assist the faculty in the maximum usage of library resources for curriculum planning. The four papers presented at the conference are contained in this volume. "Why academic library instruction?" provides a theoretical basis for library orientation. The topic of whether a separate course in bibliography or course-related library instruction is needed is discussed in "Question: a separate course in bibliography or course-related library instruction?" "Motivating students and faculty" focuses on the problem of how to encourage use of the library. The final paper, "Library orientation is reaching out to people," is a discussion of the library outreach program at Eastern Michigan University by the two orientation librarians.


This research project represents the results of 264 questionnaires received from United States college and university libraries with a student enrollment of 3,000 or more. The results show that while there is widespread use of students in a variety of positions with varying degrees of responsibility, there is little effort made to organize any form of training program; set standards for employment; or pay a standardized wage. In addition, few records are kept as to the length of service or their work performance. The author hopes that this report of the survey results will stimulate action toward the standardization of accepted selection and training procedures for student library assistants. The questionnaire and sample cover letter are appended.


It was determined that the further development of the Regional Medical Library Program required a more direct relationship with institutions than could be gained through announcements and direct mailings. Thus, since several libraries had shown some success in upgrading of libraries through the employment of medical library consultants, it was decided that each participating library would identify one member of its staff to perform the role of Intramural Coordinator. This paper attempts to identify the role of a new kind of librarian, the medical library consultant, and to define a reporting mechanism so that Kentucky-Ohio-Michigan Regional Medical Library (KOMRML) extramural coordinators can begin to share experiences constructively for program planning and implementation. The change in function of the medical resource libraries to "public" libraries, the role of state library consultants in extending library services, and the possible activities in which a medical library consultant might engage are examined. (Other papers on KOMRML are available as ED 044 147 through 151 and ED 048 889.)


This report describes the operations of the Pacific Northwest Bibliographic Center (PNBC) which is located at the University of Washington's library in Seattle. The center's Union Catalog contains bibliographic citations for 1,778,000 different titles held by forty-five libraries in the Pacific Northwest. The Union Catalog is supplemented by microfilm files and several book catalogs, as well as the University of Washington library's card catalog. These resources are estimated to describe and provide locations.
to approximately 2.75 million different titles. The filing and searching operations of PNBC are described in detail and costed. Flow-charts are provided. The characteristics of requests received, processed, and those for which locations were not provided are described. PNBC's success rate in providing locations for requests is 83.11 percent. Of the requests forwarded by PNBC to potential lending libraries, 83.69 percent result in materials being delivered to the requesting library. A determination was made of the elapsed times for component elements in the sequence from a library requesting material, through processing within PNBC, to the library receiving the material. Processing time within PNBC was found to be 13.01 percent of the total "turn-around" mean time of 19.75 days, and about 6 percent of the total mode time of 10.5 days.


The main objectives of Project BALLOTS (Bibliographic Automation of Large Library Operations Using a Time-Sharing System) are to control rising technical processing costs and, at the same time, to provide improved levels of service. This report on BALLOTS Phase II is concerned with the development and implementation of the production library automation system—the system that will support the day-to-day operations of the library. The report is divided into four parts. Chapter 1 gives some background for the report and summarizes the nature of the BALLOTS system, as well as its status at the end of the reporting period, June 1971. Chapter 2 describes development progress in two different areas: the bibliographic services and system design as seen by the user; and the software and hardware design to support these services (including video terminal selection and screen design). Chapter 3 describes the major standards and analytic studies completed during the design. Each of these standards or studies became a part of the design, or had a substantial effect on the user, hardware, or software design described in Chapter 2. Chapter 4 describes the activities currently under way (following the reporting period) and future plans.


In order to structure an effective campaign aimed at increasing the usage of the public libraries in Essex County, New Jersey, this research project was undertaken to determine the consumer attitudes toward various aspects of public library services. These aspects include: extent of public library usage; awareness of library services offered, library services used, suggestions for improvement of library services, evaluation of library facilities, and profile of the library user. Cost considerations made it necessary to conduct the study mainly by telephone, using controls to minimize the bias resulting from homes without telephone listings. The questions answered by this survey include: (1) Who uses the library?; (2) Whom does the public think the library is set up to serve?; (3) What do users think of library services?; (4) Why don't people use the library?; (5) How does the library function relative to children?; (6) Why do people use the library?; and (7) How can potential library users be reached? The detailed findings are followed by an extensive tabular report. The appendix contains the questionnaire used and instructions given to the interviews.


One of the questions that seems to perplex many university and special librarians is whether to move in the direction of centralizing or decentralizing the library's collections and facilities. Presented is a the-
A theoretical approach, employing location theory, to the library centralization-decentralization question. Location theory allows the analyst to examine economies of scale and the cost of overcoming distance simultaneously to determine the optimal location and size of university libraries for a given level of services. Specific applications for the Massachusetts Institute of Technology (M.I.T.) library system are discussed.


Concerned with identifying computer based library projects in Great Britain and the commonwealth countries, this survey is based primarily on the survey questionnaires, but information was also gathered from extensive research of the literature. This published report of the survey findings is divided into four parts: (1) an analysis of the Library Automation Research and Consulting (LARC) Association survey results; (2) indexes to the survey listing; (3) the survey reports; and (4) a detailed review of several automated projects, including a report on a survey of automated activities in British University libraries and a National Libraries automatic data processing (ADP) study. The survey is for the use of those librarians intending to automate and seeking information from those who have implemented similar systems. It should also be useful to funding agencies since it documents the extent of existing automation, and identifies areas where little appears to be going on. Conference planners might find it useful for locating speakers, discussion leaders, etc., outside the well-known and often reported systems.


Preliminary research conducted on undergraduate university students showed that those tested averaged only 32 percent correct on their pretest knowledge of the workings of the library card catalog. This card catalog program text has been designed to help the student learn the use of the card catalog and to use it faster and more effectively. The program deals with six aspects of the card catalog: (1) filing rules; (2) call numbers; (3) cross-referencing; (4) author, title, and subject cards; (5) tracings; and (6) the book Subject Headings Used in the Dictionary Catalogs of the Library of Congress. Three main divisions of the material are: (1) pretest, (2) workbook, and (3) posttest. The tests are designed to be self-administered and self-scored. The student should take the pretest and grade it himself; it will show in which of the six areas of the card catalog he needs instructional help. The student then should follow the instruction outlined in each of the critical areas as indicated by the pretest results. The student should spend as much or as little time in instruction as is felt necessary before taking the posttest. Compare pretest and posttest scores for actual learning gain.


The purpose of the investigation was to determine how effectively biomedical practitioners, with a minimum of introduction to the system, can conduct on-line searches to satisfy their own information needs. The searches were conducted on the Abridged Index Medicus data base as implemented on the on-line ELHILL system (AIM-TWX). ELHILL is the ORBIT on-line retrieval system of the System Development Corporation as modified for National Library of Medicine use. AIM-TWX was a particular experiment whereby ELHILL was used to make the data base of Abridged Index Medicus available by teletypewriter exchange. Forty-eight searches were conducted by biomedical practitioners. Trained search analysts then structured
and conducted searches on the same subject. Statistics were collected and results compared. It is concluded that many biomedical practitioners could exploit AIM-TWX profitably with the minimum of introduction to the system and without the necessity of using a trained MEDLARS analyst. Limitations of the present ELHILL system and potential improvements are discussed as well as possible longer-term approaches to the problems of on-line retrieval.
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