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## Resources in 1975

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Introduction

DEVELOPMENTS IN THE FIELD OF LIBRARY RESOURCES for 1975 have made it increasingly clear that the larger problems are strongly interrelated and interdependent. It is instructive to point out, for example, the overriding implications of inflation and recession with respect to library budgets in general and federal appropriations for education purposes in particular. And in the same vein, one notices how the problem of access to resources is bound up with the continuing publication explosion, as well as library acquisition rates which are subject to considerable variation according to prevailing economic factors, along with network development and other types of interlibrary cooperation. It is also useful to bear in mind the pervasive, yet so far unresolved, impact of the copyright issue, the long-term prospects for coordinated nationwide resource development under the National Commission on Libraries and Information Science (NCLIS), and the consequences of projected bibliographic goals promulgated by the Library of Congress.

And while it is easy enough to remark on the interrelated nature of these issues, at the same time it is becoming more difficult to specify potential resolutions or trends in some of the more crucial areas. With respect to the problem of resources and the future of collection development, a number of intriguing questions will serve to illustrate this apparent conundrum: Does the concept of access to, rather than ownership of, resources imply an end to geometric growth in book collections? Does the network environment sufficiently promote collective reliance on pooled resources so that individual library growth can be restrained? Are there circumstances in which it is possible to weed a library collection at a rate equal to the acquisition rate so as to produce a steady-state condition? Does the continuing expansion in publication of library materials suggest that some rate of growth is unavoidable, and if so, at what rate? The net result of this kind of soul-searching is that the course of future development in these areas is altogether unclear, though some indicative trends will be examined in the text below.

Similarly, the problem of library and publishing industry economics raises its own share of thorny questions: Has the industry been victimized by having published too many books, and is this alleged excessive rate continuing? What will be the long range effects of differential pricing for library cooperatives? What will be the ultimate impact of revenue sharing on the library market place? Does the large number of news stories which report increased library appropriations by state and local authorities signal an upswing in library fortunes, or does the equally large number of disaster reports suggest that the worst is still ahead?

The fact is no one knows the answers to these questions. But the important thing is to recognize that the issues are interrelated, that it has become increasingly difficult to isolate them within the context of the overall problem of resources, and that, at the risk of hyperbole, all of them must be grappled with at once. Thus, it is worse than useless to look for a scapegoat as some are inclined to do when a situation becomes very complex or there are too many unknowns: "We're at the mercy of price-gouging publishers!" or "They won't buy as many books if they form a co-op!" or "The government hasn't helped us!" The problems are great, but workable solutions are on the way if only all parties can maintain equal parts of cool detachment and warm cooperation.

If access to national resources in lieu of local ownership is to become a viable alternative, it is important that appropriate bibliographic information be widely available and centrally coordinated. The National Commission on Libraries and Information Science has recognized this concept in referring to the Library of Congress (LC) as de facto the National Library and including among its potential responsibilities the provision of "on-line distribution of the bibliographic data base to the various nodes of the national network." In this context it is encouraging, therefore, to be able to report a significant announcement from the Library of Congress. On 9 June 1975, LC Processing Department director William J. Welsh (now Deputy Librarian of Congress) stated that "the Library of Congress is the logical agency to serve as the national bibliographic center . . . [and] . . . to develop and maintain standard bibliographic devices that will promote consistency in decentralized input to a comprehensive national data base."

NCLIS further underscores the role of the Library of Congress in terms of distribution of bibliographic data in its third and final draft of a national program:

The participation of the Library of Congress is crucial to the development of a National Program and to the operation of the nationwide network because it has the capacity and the materials to perform many common services in both the areas of technical processing and reference because it can set national bibliographic standards for the program.

. . . Full utilization of the technology of on-line access and distribution networks must be accomplished as early as the technology makes this economically possible. Some of the products expected are automatic creation of local machine-

stored catalogs of local or remote collections, custom-made bibliographies from large data bases, intercoupling of user requests with current cataloging to eliminate delay in availability of recently acquired items, and remote instantaneous delivery of very recent cataloging production.<sup>3</sup>

On the economic front, NCLIS sponsored a study by Government Studies & Systems, Inc. (GSS), which reported that the current pattern of library funding is thoroughly deficient and that local governments are carrying a disproportionate 81 percent of library costs. GSS further suggests that all existing federal aid programs are inadequate, casts doubt on the proposed Library Partnership Act, itemizes the failures of federal categorical grant aid, and challenges the concept of revenue sharing. The study recommends a funding system which would gradually shift 50 percent of the burden to the states and 30 percent to local government over a ten-year phase-in period. Underscoring the interrelated nature of the problems of resources nationwide, this report to the National Commission also insists that citizens require much better access to information and gives its support to the concept of a national bibliographic system.

In summary, therefore, one may paraphrase a portion of last year's review by observing that the "problem of library resources, in terms of selection, purchase, accessibility, and interinstitutional sharing," is not only "one of the most pressing issues of our times," but the complexity and interdependence of its many components render it one of the most labyrinthine as well.

#### Access to Resources, Resource Sharing, and Networks

One of the most important contributions to this subject in recent library literature was offered by de Gennaro, who observes that if "the goal of self-sufficiency or even comprehensiveness is unrealistic and unattainable," the solution largely consists in the "adoption of more realistic acquisitions policies and the development of more effective means of resource sharing, not only through computerized networks but also through the creation of new and improved national resource centers."6 He insists that librarians must shift their emphasis from holdings to access, and suggests that the "new climate of austerity" can be counted on to provide the stimulus to move library administrators and faculty in the right direction.7 This latter point was emphasized in another context by David Weber, who notes, in discussing prospects for resource sharing, that "the weakest link in a system of shared resources . . . is the 'lethargy of the professional staff' at the circulation and reference desks."8 It is useful, therefore, for librarians to keep in mind the conclusion of the study by Dougherty and Blomquist, which indicates that many users are prepared to do without immediate availability in favor of convenient access.9

With regard to fears frequently expressed by publishers to the effect that resource sharing poses an economic threat and implies a loss of sales, National Commission Executive Director Al Trezza dismisses the idea that the industry will suffer,<sup>10</sup> and the commission's final report pointedly observes that "the same volume of material will always be needed to satisfy local needs, and that networks will lead to greater information use and, hence, to increased sales." Opposition to cooperative action and associated photocopying on the basis of alleged economic threats was also attacked by James Skipper, executive director of the Research Libraries Group, who stressed that no one has yet proved that publishers have been damaged by photocopying, and that licensing photocopying is self-defeating because it will simply reduce the funds available for the purchase of new material.<sup>12</sup>

Symptomatic of the growing interest in network-related research and management was the formation in the fall of 1974 of a new Committee on Networking by the Special Libraries Association. The function statement, approved in January 1975, identifies major concerns in the areas of library cooperation, resource sharing, and networking with particular interest centering on relationships with NCLIS. This development underscores a point which has been made repeatedly by NCLIS, and confirmed in a recent study by Casey, to the effect that "intertype library network development is mushrooming . . . [and that] users normally gain access to networks through the local public library although academic and special libraries also serve as access points." <sup>18</sup>

Staff and organizational requirements for resource sharing and network operations were explored by Parker, who finds that library networks appear to have five basic components: resources, directories, communications, users, and management. It is interesting to note, in the context of this report, that he attributes the growth of library consortia to "a time of fluctuating economic support . . . [wherein] . . . budget restrictions and changes in the federal support for libraries have resulted in substantial shifts in library perceptions of the potential benefits of resource sharing organizations." <sup>14</sup> Various models and methods of network man-

agement were also examined and evaluated by Parker.<sup>15</sup>

Recent studies by Knightly, who found collection overlap among groups of academic libraries to be extensive, and by Stewart, who determined that little or no use was made of most of the periodicals on the holdings lists of a group of college libraries, confirm that there are certainly pressures other than economic which account for efforts to pool resources and share them interactively. Continuing this line of thought, de Gennaro cites research by Stevens and Buck to support his observation that foreign language research materials in U.S. libraries "are not heavily used and could be shared to a much greater extent than they are now." And these are only a few of the many developments which could be mentioned to explain the rapid expansion of cooperative endeavors. In fact, lest there be any doubt about the assertion that the number of cooperatives has mushroomed, the growth of library networks in recent years has made necessary the publication of a directory which requires 385 pages to cover academic library consortia alone. Assertion of the content of the cooperative which requires 385 pages to cover academic library consortia alone.

Complicating the matter even more is the fact that a given library's participation in more than one network or consortium has become the rule rather than the exception, a condition which Peter Oliver of the Harvard Divinity School Library has described as being "like the interlocking treaties of pre–World War I Europe."<sup>19</sup>

#### Federal Appropriations

Spurred by the pressure of inflation and a commitment to reduce federal spending across the board, the Ford administration made it clear early in 1975 that there would be a continued reduction of expenditures on book and library programs. The budget request for the education division was \$6.086 billion for fiscal 1976, which was \$618 million below the amount authorized by Congress for the fiscal year which ended 1 July 1975. This retrenchment was coupled with a threat to rescind substantial portions of the appropriations already authorized by Congress. The Ford budget request for education programs included \$167 million for library resources, of which \$137 million was requested "on an advance-funded basis for use in school year 1976-77 for a consolidated program of library and instructional resources."20 But this budget recommended only \$10 million for Title I of the Library Services and Construction Act (LSCA), and no money at all for public library construction, interlibrary cooperation, and older readers services (Titles II, III, and IV). The remaining \$20 million was earmarked for the administration's library partnership act. With this kind of nonsupport for libraries from the White House, the hope was that once again Congress would revise the final appropriations bill upward.

This is in fact what happened. But having passed a compromise bill amounting to \$218 million for libraries, Congress faced another hurdle in the form of President Ford's veto on 25 July of the entire educational appropriations bill. Fortunately, the House was able to override the veto by a vote of 379 to 41 on 9 September and the next day the Senate also voted to override with virtually no opposition. The ALA Washington Office staff and the Committee for Full Funding of Education Programs had worked hard to rally support from librarians in the effort to override the president's veto, but expressed only cautious optimism after the vote because of the very real threats of impoundment and recision. Another problem was that funds appropriated under H.R. 5901 were intended to cover a fifteen-month instead of a twelve-month period, from 1 July 1975 to 30 September 1976, because of the decision by Congress to change the start of the fiscal year. But, at year's end, prospects were good that Congress would enact transitional appropriations to tide libraries over as it already had done for such agencies as NCLIS and the Library of Congress.

President Ford's election-year education budget for fiscal 1977 was described as "more of the same punishment dished out by the Nixon administration, only worse." The initial budget message for next year proposed a slash of about \$1 billion in money for education below the

level approved by Congress for fiscal 1976, and continued the trend to-

ward consolidation of categorical programs.

The first Treasury Department analysis of the effects of Revenue Sharing, officially known as the State and Local Fiscal Assistance Act, showed that "libraries received some \$82 million in general revenue sharing funds during fiscal 1974-or about one percent of the funds distributed by the 34,538 government units surveyed. Originally designated as one of the highest priorities in the plan, libraries came out sharing a poor tenth place with community development."22 But regardless of the amount actually made available under this program, the vital question remained as to what extent local governments used revenue sharing dollars to supplement their own support for community services such as libraries, and to what extent these funds were used to supplant existing sources of revenue. The ALA Washington Office, in expressing grave concern over this problem, stated that "a serious information problem exists with respect to libraries and general revenue sharing," and initiated a survey of state library agencies to determine "how much of the general revenue sharing local libraries have received is 'new money' for new projects, and how much is not."23

Early in 1975 Congress began to consider the merits of extending the Revenue Sharing act beyond 31 December 1976, and heard various suggestions for amending the law, which included: "1) eliminating the priority categories for use of revenue sharing funds at the local level, 2) strengthening the anti-discrimination provisions of the law, and 3) adding maintenance-of-effort requirements so that federal funds will not be used to supplant state and local funds."24 ALA immediately expressed support for retaining the library priority within the law, and solicited information on how general revenue sharing had affected libraries throughout the country. Early indications were not favorable in that, for example, a Wisconsin survey found that "municipal governments are instead using [Revenue Sharing] as a means of cutting their support for libraries."25 The situation was exacerbated throughout 1975 by nagging recession and spiraling book prices which greatly increased the number of library patrons and circulation rates. Thus, along with the general economic problem of simultaneous recession and inflation, libraries faced the consequences of increasing patron demands along with decreasing resources.

In this connection, the final draft of the NCLIS report states that "the preponderance of testimony to the Commission indicates that the revenue sharing mechanism does not work well for libraries . . . because it forces them to compete for funds with local governments and their utilitarian agencies, such as the police and fire departments." The commission further concludes that "categorical aid must be continued and strengthened until a comprehensive new program is authorized and adequately funded." 27

A maverick opinion with regard to federal programs for libraries was offered by O'Halloran, however, who admitted that revenue sharing

had been a failure so far as public libraries are concerned, but that "the fault is in the libraries, not in the law," and that, in fact, the inability of libraries to obtain more revenue sharing funds constituted "the virtue of Revenue Sharing: by allowing state and local officials to finance what they consider to be valuable." This opinion was not shared by many, however, and did not appear to be gaining currency.

#### Library Budgets

The combined effects of inflation, recession, and government appropriation maneuvers left the library budget picture in a state of mystery for 1975. Typical of conflicting headlines in the news were these: "Fighting the good fight in bad times"; "Massachusetts mounts inflation counter-offensive"; "Library budgets: sunshine and showers"; "Federal \$\$ outlook grim"; "States start pulling back library \$\$ aid." For every story of reduction, recision, and outright disaster, there were reports of substantial budget boosts and increased tax support for educational purposes. Libraries which fell into the disaster category devised a large variety of survival techniques, including cutbacks in services, reduced book budgets and standing order lists, staff lay-offs, legislative lobbying, fund drives, and one library sought to supplement its meager budget by selling withdrawn titles to a recycling firm instead of simply discarding them. Other approaches to the problem included that of the Librarians Guild of the Los Angeles Public Library, which "hired a public relations and legislative consultant to develop and coordinate community action."29 On the other side of the coin, libraries which were not adversely affected were doing very well indeed: the Mobile Public Library budget nearly tripled in the three years since 1972; the State Library of New Mexico anticipated that state aid to public libraries would double in 1975, and Mississippi pledged \$4 million in state matching fund aid for library construction in 1976.

In short, the situation with regard to library funding for books, services, and construction in 1975 was cloudy to say the least, and it could only be hoped that the worst was over.

## Book Publication and Library Collection Growth

It is extremely difficult, if not impossible, to pinpoint the time when the argument over the limits of growth began to heat up past the boiling point. But a series of articles by Dessauer which appeared in late 1974 is as good a place as any to begin. It is his thesis that whereas it is clearly a case of overreaction to discredit the concept of growth altogether, nevertheless good judgment and discrimination are necessary in order that growth may be managed wisely and effectively. And he concludes that "the book industry provides examples of both healthy and indiscriminate growth. On the positive side is the expansion of book markets: the increasing number of readers and book buyers, the proliferation of retail outlets, the development of more and better methods of selling books by direct mail. On the negative side is the industry's danger-

ously rising production: too many copies of too many titles directed to an increasingly resistant market." Dessauer's ideas were subsequently attacked by Benjamin, Brockway, and Prescott, but he was not disuaded from the view that "certain publishers continue to increase the volume of books they release, to their own detriment and that of their authors and readers." 31

The same opinion was echoed by Mason, who concludes that "there is no question that too much material is being published at too low an average quality, and that a reduction in published books would be a blessed relief to the world." 32

The annual meeting of the Book Manufacturers' Institute 1975 was the scene of more debate on this subject. Thomas J. McCormick of St. Martin's Press, and others, agreed that "there may be far more books than the marketing channels can handle," but they saw no practical way for publishers to limit the number of titles they produce and suggested the answer may lie in the area of developing better distribution channels and sales outlets. Dessauer had touched on this point earlier in his monograph on the book publishing industry in which he identified three major problems: the need to curtail overproduction, the need for greater standardization in manufacturing, and the need for an effective distribution system. 4

On the library side of this question, the long-held assumption of unlimited growth in the size of collections also came under attack. Bergman and Fenton score what they call the "bigger-is-better" theory of collection development and argue that the profession must "bring the growth momentum to a screeching halt, examine our priorities, and state our objectives" with a view toward allocating our resources more effectively.<sup>35</sup>

Certainly it is quite clear that the question of limits to growth is a serious one. The British Library, in its first annual report for 1975, characterized its most serious problem as a crippling shortage of space, while Jones noted in a report on twenty recently constructed West German university libraries that the stacks of several will soon be filled to capacity and will require extensions, and Gore guessed that "in a very few years the majority of academic libraries will own more books than they can shelve."36 To these observations may be added the remark of the Harvard Librarian that "research interests have become so broad and the quantity of printed materials useful to research has increased so greatly that the Harvard Library today, with its 7,000,000 volumes, is more frequently reminded of its inadequacies than it was 60 years ago when it had only 1,000,000."37 The coup de grace is neatly administered by de Gennaro, who reminds us that this statement was made in 1963, since which time Harvard has added 2,000,000 more volumes and has fallen even farther behind.88

Buckland is another investigator who agrees that libraries are finite in nature and that there must and should be limits to their growth. Acceptance of this principle, he asserts, implies that the optimum size for

a given library can be determined, the titles which should constitute its collection can be defined, and the length of time they should be retained can be calculated.39 The logic of this approach is taken to its limit by Gore, who relies heavily on Trueswell's almost forgotten research, and concludes that a steady-state condition can be reached and maintained by appropriate weeding of unused material. 40 But it is worth noting that Dollard, in a review of Slote's monograph on weeding, calls attention to "the peculiar coincidence that the no-growth model of the library has emerged simultaneously with the emergence of the no-growth model of the economy at large," and asks the necessary question, "are we innovating or are we merely being swept along?"41 This is a very important question and it must be answered before we are in a position to accept or reject the axiomatic principle of no-growth library collections. Far too often in this profession, axioms do not consist of the a priori fundamentals from which a body of knowledge may be derived; rather, they frequently represent current fads and fancies which, in retrospect, turn out to be far from self-evident.

#### Book Trade and Library Market

In the context of a sweeping analysis of the health of the publishing industry, Machlup also suggests that an excessive number of titles are being published. It is his thesis that the industry is not as healthy as the profit-and-loss figures would seem to indicate, and that most publishers are unaware that a problem exists. Machlup concludes that the alleged misleading financial reports, if not due to the production of too few copies of too many titles, may be traced to profits realized from selling inventories or masked by price inflation.42 Rollo takes issue with this analysis, however, rejecting Machlup's evidence as circumstantial or misinterpreted, and states that "the inescapable conclusion is that there is no rational basis whatsoever at this time for diagnosing the industry as sick or perceptibly prone to sickness." He also suggests that the "overproduction of titles is a soluble problem and not 'an economic impasse' ... [and that] ... the uptrend in the production of titles will be reversed if an increased number of titles do, in fact, fail to achieve the break-even point."43

Whether or not the industry itself is sick, there can be no doubt that it was faced with serious economic problems throughout 1975. The Book Manufacturers' Institute held its annual meeting at the end of 1974 and it was readily agreed that economic uncertainties lay ahead and that 1975 would be a year for "fortitude." Norma Pace, economist and vice president of the American Paper Institute, suggested that "what happens in 1975 will be the key to future economic growth in this country, both quantitatively and qualitatively . . . [and that] . . . two conflicting forces—inflation and recession—are on a collision course, and many now fear a much larger recession than they anticipated only a few months ago."44 Even so, George Brockway, president of W. W. Norton, "took issue with

the notion that the publishing industry would or even could cut down significantly on the number of new titles published every year."<sup>45</sup> He further contended that, while the recession may lead to some trimming of lists, publishers will continue to release as many titles as they can afford and expect to make a profit on.

An assessment of the general climate of the publishing industry in 1975 was the theme of the latest Book Manufacturers' Institute meeting held last fall. On the basis of those sessions, it is encouraging to report that, although the industry is clearly in the midst of a major change, most of the speakers said they could "look forward to new growth in the future as forces now at work had positive effects in addition to more obvious negative ones, and as restructuring problems are worked through." Evidence cited in support of this optimistic viewpoint included the suggestion that inflation appeared to be running out of steam

and increasing book sales could be anticipated.

One of the most important developments in library/trade relations was the presentation at the ALA San Francisco Conference of an all-day program on book marketing and library selection. Cosponsored by the RTSD Resources Section and the division's Joint Committee with the Association of American Publishers, this program was based on the results of more than a year of effort by several investigative groups. The conclusions of the study were previewed in Library Journal<sup>47</sup> and, following the conference, were fully reported in Publishers Weekly.48 Unfortunately, there is not sufficient space here to summarize all of the findings of this investigation which focused "specifically on marketing efforts by publishers and the interfacing materials selection by librarians."49 But one or two aspects of Dessauer's estimate of library expenditure and his forecast for the next few years which formed part of the RTSD/AAP program should not go unremarked in the context of this review of resources in 1975. It is his contention that "the trend of the times favors . . . schemes of cooperative purchasing and processing by libraries themselves . . . [and that] . . . although joint purchasing programs, particularly among academic libraries, have often failed in the past, improved technology, a greater commitment to cooperation and the budget crunch may help." He concludes that the jobber's role as supplier of processing services and approval purchasing is "likely to suffer some attrition, however, as cooperative services gain ascendancy."50

Reports of cooperative or joint-purchasing plans appeared in the literature throughout 1975. Most of these plans were operated by systems or consortia in order to fight inflation and stretch the library dollar. An indication of the speed at which prices for library materials are going up may be found in announcements from jobbers, such as Bro-Dart, that quoted prices, which rose 19 percent for hardcover books during the first nine months of 1975, are valid for thirty days only.<sup>51</sup> But the effort to hold down costs was likely to be blunted by the threat of differential pricing for library cooperatives such as the New York City-based METRO (Metropolitan Reference and Research Library Agency).<sup>52</sup>

Assistance in the preparation of book budgets and analysis of projections was provided by Clasquin, who presented a detailed breakdown of periodical prices by subject and price range over a three-year period, and by Axford, who offered a comparison of the average prices paid for books acquired through approval plans and the average prices listed in the Bowker Annual.<sup>53</sup>

In concluding this section on developments in the book trade and library market, it is good to report the appearance of the second volume of Tebbel's history of the book publishing industry in the United States. In the words of one reviewer, "the projected trilogy will certainly serve as a reference set, as virtually all aspects of American publishing history are covered in a comprehensive and balanced manner." 54

#### Selection and Acquisitions

A great deal of work has been done in recent months in the areas of selection and acquisition, with particular attention having been given to the allocation of resources by formula and the investigation of a number of specialized acquisitions problems.

With regard to book selection in general, Golden undertook a quantitative evaluation of the book collection at the University of Nebraska at Omaha and concludes, not surprisingly, that quantitative research must be supplemented with qualitative evaluation.<sup>55</sup> Kósa analyzed a larger number of selection aids to determine their relative usefulness to subject specialists. He found that three-fourths of all orders were selected by means of only six commonly used selection tools, and that the two most frequently consulted were bibliographies and publishers' advertisements.<sup>56</sup> Buckeye attempted to justify participation by undergraduates in the book selection process and suggested a method of allocating funds to students for their own purchases.<sup>57</sup> Gration and Young examined the concept of reference-bibliographers in the selection process.<sup>58</sup> MacDonald noted that "discarding is as important as the initial selection of material . . . [and that] . . . a policy on weeding . . . should be incorporated into the library's book selection policy."<sup>59</sup>

Burton observes that "budget preparation by formula in academic libraries is a relatively recent phenomenon," and offers a quantitative method for the projection of book fund and staffing needs.<sup>60</sup> A methodology for determining acceptable ratios of acquisitions to total collection, loans to acquisitions, and budget percentages to be allocated among books, serials, and personnel is offered by Randall.<sup>61</sup> A model for specifying acquisition rates for current material in universities with extensive doctoral programs is described by Voigt, who cautions that "enthusiasm [for cooperation and networking] may result in a weakening of individual research libraries to a degree that advanced graduate programs and research are no longer possible."

Using circulation data and average book prices, McGrath develops an empirical formula for book budget allocation. Gold presents a method for allocating the book budget based on considerations of economic ef-

ficiency, while Kohut and Walker reject the principle of cost-benefit allocation of the book budget in favor of a range of allocative formulas

based on equity.64

New and Ott studied the pattern of interlibrary loan requests at California State University, Fullerton, as a potential tool in collection development. They conclude, however, that on the basis of this analysis "it seems impossible to anticipate the need for a specific title . . . [and that] ... the best this study can do is to indicate the collection is weak in certain subject areas."65 A library problem representative of the larger problems of library networks is examined by Pitt and Kraft, who construct a mathematical model based on the principles of microeconomics to determine an acceptable rate of photoduplication in lieu of acquisition of new material.66 A long overdue study of the Duplicates Exchange Union is offered by Eggleton, who concludes with a number of provocative recommendations.<sup>67</sup> Kim attempts to compare the cost and efficiency of ordering books from wholesalers as opposed to direct ordering from publishers, but his research methodology and the composition of the sample titles may be criticized, suggesting that more work is called for in this area.68 The difficult, often frustrating task of securing technical report literature is analyzed by English, who describes the approach used at Bell Laboratories.<sup>69</sup> Cohen undertakes a detailed subject analysis of book output and cost statistics in terms of academic library resource development and budget requirements.70 Even in the inflationary 1970s the approval plan continues to be used as a collection development tool, but DeVilbiss concludes that "there are significant differences between the collection which will result from approval buying and the collection which will result from traditional select and order procedures."71

## Gifts and Exchanges

In mid-1975 the United States Book Exchange announced its intention to change its name. Although USBE has been around for twenty-seven years, there has always been confusion about its status and purpose: it is not a government agency, it does not handle books only, and its services are not free. It was expected that the new name would remove some of this ambiguity and perhaps stimulate business as well. In the latter connection, USBE sought funding from the Council on Library Resources to encourage libraries to make use of its services in lieu of interlibrary loan.<sup>72</sup>

Acting on a report by the Library of Congress which showed that the Tax Reform Act of 1969 disallowing tax deductions for gifts of art works and manuscripts to museums and libraries had caused a decline in contributions to its manuscript division, Sen. Jacob Javits and Rep. John Brademas introduced legislation (S. 1435 and H.R. 6057) which would allow donors to deduct 75 percent of the market value of their gifts. Several university libraries had reported significant reductions in the number of gifts since 1969, and it was expected that this modification of the Tax Reform Act would go far toward correcting the situation.

A report prepared by Norman Tanis, former president of the Association of College and Research Libraries, confirmed the conclusions of Javits and Brademas and showed that some authors had resorted to placing their papers on "deposit" in the hope that revision of the tax law would enable them to claim a deduction at some future date.<sup>74</sup>

#### Government Publications

The price of government publications continued to be a matter of grave concern, with an increase of 73 percent across the board in 1973, and 10 to 20 percent in 1974. With many libraries having to reduce the number of documents acquired because of the price increases, it is not surprising that the publication of a report by the General Accounting Office on the pricing policy of the GPO was out of print as soon as it was released.75 In addition to a searching examination of GPO's pricing formula and its application, this report questioned whether Congress should subsidize the cost of publications through appropriations. But Thomas McCormick, head of the GPO, testified before a House appropriations committee that, in his opinion, the GPO's "present policy is appropriate in the vast majority of cases. . . . If any subsidy is appropriate, it should be only for selected publications."76 If subsidization by the Congress was not possible, there seemed to be no alternative to continued price hikes. The GAO report noted that the cost of printing and binding was up 66 percent since 1969, and that distribution costs, which include postage, were up an incredible 400 percent.

In other respects, the GPO claimed that service to depository libraries had been improved. The backlog of unfilled shipments was reduced; the distribution rate of non-GPO publications was improved; and a pilot project was undertaken with the Ohio College Library Center (OCLC), designed to make cataloging and catalog cards for GPO publi-

cations available through that organization.77

## Copyright

Appealing the judgment of the U.S. Court of Claims, Williams & Wilkins took their case to the Supreme Court on 17 December 1974. In presenting arguments to the court, both sides emphasized the economic aspects of the problem. The attorney for the government described the publisher's demand for royalty payments as "an invitation to chaos" and said that the net result would be a reduced market for journal subscriptions because of the heavy financial burdens such a system would impose on libraries. Williams & Wilkins, on the other hand, argued that compensation was necessary if the independent publication of small specialized journals was to continue, and suggested that unauthorized photocopying on a large scale constituted a threat to the entire publishing industry. But U.S. Solicitor General Robert H. Bork rejected claims that photocopying had reduced the profits of publishers—claims which he described as "sheer rhetoric" disguising efforts by the publishers to increase subscription prices for libraries.<sup>78</sup>

Two months after hearing oral arguments the Supreme Court in a 4-4 vote handed down its decision on 25 February 1975 which affirmed the judgment of the U.S. Court of Claims. Although the effect of this decision was to uphold the case for the government, the court refrained from announcing general principles and, in fact, failed to resolve the legal issues involved. Responsibility for spelling out guidelines on photocopying, copyright compensation, and fair use remained with the Congress. Moreover, Register of Copyrights Barbara Ringer had said earlier that it would be up to Congress to legislate a solution whether or not the Supreme Court ruled in favor of libraries.<sup>79</sup>

The general copyright revision bill (S. 1361) which had passed the Senate on 9 September 1974 died with the adjournment of the 93rd Congress, but reappeared in the 94th as S. 22 along with a companion bill in the House (H.R. 2223). In the meantime President Ford had signed into law an interim copyright law (P.L. 93-573) which extended the duration of expiring copyrights through calendar year 1976 and established a National Commission on New Technological Uses of Copyrighted Works (CONTU). The Senate was expected to vote on S. 22 early in 1976 and the House some time thereafter, but the complexity of the many unresolved issues made that timetable somewhat doubtful in the eyes of some observers.

#### Summary

These are not the best of times for librarians working in the field of resources. They, along with government representatives and industry leaders, are in danger of perpetuating a vicious circle, or at the very least, of prolonging a set of circumstances that benefit no one. Economic conditions characterized by a combination of recession and inflation have contributed to federal retrenchment on many fronts, including reduced appropriations for education programs. This in turn has been partially responsible for creating smaller library budgets for materials, a circumstance which has stimulated the formation of cooperatives in an effort to share resources. But sharing, in the context of library resources, implies photocopying, which is an integral part of the general copyright problem. In each case, photocopying and copyright, the library market as well as the book trade has a vested, economic, even emotional interest. Libraries wish to maximize available resources in the face of hard times and reduced budgets, while publishers and authors wish to maximize product distribution and income as protection against circumstances that are equally hard on them.

There seems little doubt therefore, as suggested in the introduction to this paper, that all of these issues are interrelated. Ideally, the solution of any given problem will lead to or assist in the solution of the others, rather than exacerbate the situation further. Of course, there has been progress on many fronts; and there have been a number of side benefits, such as the stimulus given to resource sharing. But it is still too early to predict how things will finally sort themselves out. One hopes that next year's report will provide further clarification of the situation.

1. United States. National Commission on Libraries and Information Science, "Annual

Report to the President and Congress, 74/75," p.14.

This concept received additional support from the Special Libraries Association in an early critique of the work of the commission: "The chief obstacle to the satisfactory sharing of resources by libraries is their lack of knowledge regarding the location and availability of specific resources—not 'distance.'

"The needed information resource is often 'just around the corner,' but its existence is unknown to the requesting library. For this reason, bibliographic tools in the form of joint data bases (catalogs) and bibliographic referral centers/ clearinghouses must have first priority at the local level and then proceed to the regional and national levels in stepwise fashion." For the full text of this criticism, cf.: "Special Libraries Association Statement on the Draft Proposal 'A New National Program of Library and Information Science,' by the National Commission on Libraries and Information Science (Oct. 1973)," Special Libraries 65:88 (Feb. 1974).

Also worth noting is the point made by Allen Veaner of Stanford University to the effect that "a major deterrent to cost effectiveness now in shared systems . . . is the lack of a high quality national data base."

"CLA/MPLA in Denver: Networks, Cataloging, Bookmobiles," Library Journal 100:2189 (1 Dec. 1975).

2. "LC Automation Activities Reported to Library Networks," Library of Congress Information Bulletin 34:266-67 (27 June 1975).

3. United States, National Commission on Libraries and Information Science, Toward a National Program for Library and Information Services: Goals for Action (Wash-

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11. U.S. National Commission on Libraries, Toward a National Program, p.27.

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College & Research Libraries 36:480-86 (Nov. 1975).

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#### AMERICAN NATIONAL STANDARD

The American National Standards Institute announces the publication of Z39.27-1976, the American National Standard Structure for the Representation of Names of Countries of the World for Information Interchange. Copies are available from the Institute, 1430 Broadway, New York, NY 10018, at \$1.50.

# Year's Work in Cataloging and Classification: 1975

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Introduction

IN THE COURSE OF MASSIVE AND RAPID DEVELOPMENTS IN A FIELD, there often comes a moment of reflection on the significance of the developments and their implications and consequences for the future. Such a moment came in 1975 for bibliographic control.

In recent years, modern technology has brought about tremendous changes in library service, resulting in notable progress in cooperation and standardization. In the field of cataloging practice, the recent progress in technology and the related efforts in cooperation and standardization have been gradually directing the course of development in the physical forms of bibliographic records and influencing the revision of the rules for presenting these records. The time has come for assessing the past and contemplating the future. In 1975, a large number of writings and efforts were devoted to such reflections and deliberations. Efforts are being made toward gaining clearer insight into the numerous and rapid developments in recent years and acquiring a proper perspective as to what the future holds and requires in terms of effective bibliographic control. The impact and implications of these recent developments on the traditional methods of displaying bibliographic records, in particular, have become major topics of discussion.

Universal bibliographic control (UBC), which was considered not long ago to be a wishful dream, has become a definite commitment. Its goals appear more and more attainable as time goes on, with the aid of modern technology and recent developments in cooperation and standardization. Efforts are being made on all levels of technical processing work toward the achievement of the goal of UBC. Since UBC is not envisioned to be a superstructure imposed on national or local units, but rather a concerted effort in cooperation and coordination among existing units, a great deal of effort in recent years has been directed to the re-

finement and improvement of the smaller units which will eventually contribute to the achievement of UBC. In 1975, there were significant activities and works in these areas.

The following discussion of the major trends and significant publications in the areas of cataloging and classification in the year of 1975 includes a few items which appeared late in 1974 and were not covered in last year's article. The discussion is organized under four broad headings: bibliographic records, cooperative efforts, descriptive cataloging, and subject analysis.

## Bibliographic Records

Perhaps the most significant activities in 1975 were the inquiries into the nature, function, and role of the traditional methods of displaying bibliographic records, including the catalog, particularly the card

catalog.

In recent years, the idea of closing the existing card catalog has been mentioned off and on. In 1975, the issue came to the fore as a result of the increasing difficulty and complications in the maintenance and the physical preservation of the card catalog. It is felt by many that something must be done about the current mode of maintaining cataloging records in libraries. Alternatives to the conventional card catalog have been adopted or considered by a number of large libraries. Earlier, the National Agricultural Library and the New York Public Library had closed their existing manually produced catalogs. It is reported that Ohio State University Library also intends to close down its public card catalog in mid-1976.1

At the University of California, Berkeley, libraries, a Subcommittee on the Future of the Catalogs has completed a thoughtful and carefully documented analysis of the potential effects on the catalogs of the libraries if superimposition is abandoned.2 One of the central issues is whether to close or not to close the existing catalog and, if so, how. Although the subcommittee does not recommend immediate closing of the card catalog, the report points to a strong likelihood of adopting a new form of catalog within the next ten to twelve years, or possibly sooner.

In a paper stating the position of the Library of Congress concerning its future catalog control, Rather explains the necessity of finding alternatives to the existing card catalog.8 Based on the current growth of the MARC data base and the progress on the design, development, and implementation of the Core Bibliographic System, he predicts that by 1979 the library will have fully automated current bibliographic files with a manual back-up in the form of a register/index catalog in either book or microform and suggests that the card catalog should then be closed. Various options for maintaining retrospective records, since complete conversion to machine-readable form is not feasible, and the implications of LC's decisions for other libraries are also discussed. The advantages of closing the card catalog are the opportunity for the abandonment of superimposition, improvement in the structure and application of subject headings, and adoption of international standards for romanization. This step would also lay the foundation for a national library network involving the decentralized input of cataloging data.

A major decision by the Library of Congress of such dimension cannot be made without greatly affecting other libraries in the country. Ever since the Library of Congress revealed its decision, librarians around the country have been greatly concerned about its implications. The Library of Congress has indicated its awareness of this concern and has been making great efforts in communicating with the library community, particularly at national and regional meetings and conferences. At a meeting of the Council for Computerized Library Networks, Welsh expressed his views that the Library of Congress is the logical agency to serve as the national bibliographic center and discussed the library's plans for bibliographic control, including the closing of its main catalog.<sup>4</sup>

Related to the plan of the Library of Congress to close the card catalog and the implications of that plan, two conferences held in 1975 must be considered the most significant events of the year and among the most important in recent years. At the annual meeting of the Association of Research Libraries, "the future of card catalogs" was the central topic of discussion.<sup>5</sup> The topic is introduced by Joseph Rosenthal in a brief description of some of the factors that have contributed to the problem of catalog maintenance and the growing urgency for a solution, particularly in large research libraries. William Welsh reviews the history of the problem at the Library of Congress dating back to 1897 and the prospect of a solution by means of an automated catalog. Rather details the multiple problems in maintaining the present card catalog and outlines five alternatives in effecting changes, none of which is seen to be ideal. Closing the card catalog and regarding the MARC data base as complete in itself are considered to be the most viable course of action. During the discussion, the question of "desuperimposition" proposed by the Library of Congress was brought up. Judith Corin points out the implications of such a policy because of the massive changes required. Rosenthal also feels that desuperimposition would be very costly in the current form of the card catalog. In view of the discussions, Welsh indicates that "undesuperimposition" may be in order and that the abandonment of superimposition should probably concur with the closing of the card catalog.

In October, an institute sponsored by ISAD/RASD/RTSD of ALA with the theme "The Catalog—Its Nature and Prospects" was held in New York. Among the speakers were Seymour Lubetzky, Frederick Kilgour, and William Welsh. The historical, ideological, and practical aspects of the catalog were explored and examined, particularly in light of recent developments in technology. Again, the issue of closing the card catalog attracted a great deal of attention, with great concern expressed relating to implications for smaller libraries and the nonresearch users of the catalog. The papers from this institute, when published,

promise to be a great contribution to the literature.

These two conferences may be considered the beginning of an exchange of ideas among librarians concerning a very vital issue. Much

more discussion can be expected in the next few years.

Among the few items on the improvement of the card catalog is Bookstein's discussion of the effect of uneven card distribution with a proposed model of catalog growth that helps to determine how to distribute cards evenly to avoid costly shifting later on. The gradual abandonment of the card catalog is perhaps symbolized by the decision of the H. W. Wilson Company, which had been distributing printed cards to small libraries for many years, to discontinue its card service early in 1975 because of a steady decline in sales.

While the very continuance of the card catalog is being questioned, other formats which will take its place are being developed and examined. At the present, the automated or computerized catalog and the microform catalog are seen to be the most viable forms. A decline in the interest in, and development of, the card catalog is juxtaposed against an increasing interest in, and application of, the computerized and the microform catalogs. Freedman provides a summary of the major efforts in automating the catalog, including the LC MARC and RECON projects, the New York Public Library catalog, OCLC (Ohio College Library Center), and BALLOTS (Bibliographic Automation of Large Library Operations using a Time-sharing System).9 One proposal concerning retrospective conversion of bibliographic records resulted in the investigation of the means of compiling a machine-readable union catalog of pre-1801 books in Oxford, Cambridge, and the British Museum. The report of the project, under the direction of Jolliffe, reveals the magnitude of such a task in terms of money and manpower.10

It is reported that many libraries, including the Indiana University library system, have developed microform catalogs, and that this technique has also been applied to the compilation of union catalogs, for example, the statewide book catalog of North Dakota libraries and the

catalog of the Winnipeg Public Library.<sup>11</sup>

The papers given at a 1973 seminar on the use of computer output microfilm (COM) by libraries include one on MARC-based COM catalogs. Spencer reports the findings of an investigation on the use of COM for library catalogs in Britain. Becker traces the origins of COM, describes its functions and some of its uses in libraries, and discusses the advantages and limitations of using COM in producing library catalogs. In the use of microform catalogs, the low cost of reproduction is usually cited as the major advantage. Christian and Steele find that in a small public library within a larger system, microfiche is an inexpensive way of providing catalogs of the holdings of the whole system. It is reported that a new technique called videocomp for the conversion of catalog cards to microfiche has been introduced by the Library of Congress in producing the 8th edition of Library of Congress

Subject Headings and by the New York Public Library for an in-house experiment.<sup>16</sup>

On the technical aspects of machine-readable bibliographic records, Lynch describes the application of the variety-generation technique to the construction of truncated author-title search keys for data bases of monograph records, and Creasey, Lynch, and Petrie report on the application of a variable to fixed-length compression coding technique to two bibliographic data bases (MARC and INSPEC).<sup>17</sup> Bourne reviews the problems of filing initial articles in computer-based book catalogs and suggests a strategy which reduces the error rate.<sup>18</sup>

Also on the subject of filing, the IFLA (International Federation of Library Associations) Working Group on the Organization of Headings for Voluminous Authors has presented its recommendations and Phillips reports on the progress of the British Library Filing Rules Committee in devising a code of filing rules for use by the British Library and drawing up a simplified subset of rules for use by systems with less complex requirements.<sup>19</sup>

The LC MARC data base now contains over a half-million records representing both monographic and audiovisual materials in English, German, French, Spanish, and Portuguese.20 Since the data base is still limited in language coverage, the Library of Congress is seeking to expand the MARC service by utilizing machine-readable records encoded and transcribed by other libraries but based on LC printed cards, proofsheets, and the National Union Catalog. A pilot project has been initiated for the cooperative use of MARC (COMARC) whereby the Library of Congress will accept records transcribed by participating libraries in the MARC communications format, remove the duplicate records, compare the selected records with those in the Official Catalog of LC, update headings and other access points, and make them available to libraries through the MARC Distribution Service.21 This system will ensure the integrity and quality of the LC MARC data base while expanding its coverage beyond what the Library of Congress alone can produce. Three agencies-Information Dynamics Corporation, Northwestern University Library, and the Washington State Library-have been selected as participants of the pilot project.<sup>22</sup>

Another method for expanding the MARC service is the exchange of tapes with other data bases. The Library of Congress has reached an agreement with the National Library of Canada to exchange MARC tapes, which authorizes the two libraries to make the widest possible distribution and use of each other's tapes in the libraries in these two countries.<sup>23</sup> A similar agreement also exists between the Library of Congress and the Réunion des Bibliothèques Nationales de Paris to exchange MARC tapes containing U.S. and French imprints without cost and on a nonexclusive basis.<sup>24</sup>

At the Western European Seminar on the Interchange of Bibliographic Information in Machine Readable Form held in 1974, it was recommended that a permanent organization be established concerned with the administration and development of an international network for the interchange of bibliographic information in machine-readable form.<sup>25</sup>

One obstacle to the effective exchange of machine-readable records is the fact that the MARC formats used in various countries are not always compatible. For example, Wilson identifies the differences between the Australian, LC, and BNB MARC formats. A MARC International Format (MIF) is being developed by the IFLA Working Group on Content Designators to facilitate exchange of records. The provisional draft of MIF has been completed and submitted to the IFLA Office for UBC for distribution to all interested organizations for examination and comment. An open meeting of the Working Group to study the text in light of the comments received has been arranged for late 1975 in Paris. Along a similar line, a manual for machine-readable bibliographic description has been prepared by a UNISIST Working Group for the purpose of achieving compatibility and interconnection between machine-based systems.

In other countries, efforts are also being made to develop and strengthen MARC systems and services. In Canada, major systems development projects at the National Library include an authority file system (operational March 1975), cataloging-in-publication (October 1975), and a cataloging support system through provision of cataloging records on magnetic tape to libraries (September 1975).30 In Britain, the British Library now offers MARC services derived from its data base containing around 700,000 records including the UK and the LC files.31 The first standard edition of the UK MARC Manual has been published.32 The European INTERMARC Group for French-speaking countries has issued a MARC format for monographs.<sup>33</sup> Its program for the immediate future includes formats for various types of materials and studies of name authority files and filing mechanisms.34 Fagerli reports on the Norwegian MARC system and its application to the production of the printed Norwegian national bibliography.35 Greaves reports on the use of LC and BNB MARC tapes in Nigeria, and the Australian MARC Record Service of the National Library of Australia is described by Munck.36

In recent years, concern for the users, particularly the nonresearch users, of the catalog has become more and more audible. The Cataloging Bulletin of the Hennepin County Library, which began publication in 1973, provides a forum for voicing such concern. This publication, under the editorship of Sanford Berman, has raised many questions concerning established rules and standards and has spoken against unquestioning acceptance of centralized cataloging. Its efforts, along with those of other reader-interest groups, have already brought about significant changes in cataloging, particularly in LC subject headings.

Also on the effectiveness of cataloging, Gorman, invoking Osborn's classic piece on the crisis of cataloging, offers four revised categories of catalogers: the Decadent, the Stern Mechanic, the Pious, and the Functionalist, the last being endorsed by the author as the hope for the pro-

fession.37

Interlibrary cooperation is by no means a new idea, yet not until recently has there been an established goal with concerted efforts on the international level. The establishment of the goal of Universal Bibliographic Control (UBC) has provided great impetus to international cooperation in library and information services. The purpose of the system, as explained by Anderson, "is to make universally and promptly available, in a form which is internationally acceptable, basic bibliographic data on all publications issued in all countries. . . . The concept of UBC presupposes the creation of a network made up of component national parts, each of which covers a wide range of publishing and library activities, all integrated at the international level to form the total system." The instrument of international coordination is the IFLA International Office for UBC. Its program has been outlined by Anderson. 39

As background material which contributes to the understanding of the international movement toward bibliographic control, Coblans provides a discussion and summary of earlier pursuits of universal bibliographies and recent efforts toward international bibliographic control.<sup>40</sup> Davinson discusses the approach to bibliographic control by means of various types of bibliographies and catalogs and the bibliographic control of various types of materials.<sup>41</sup>

Since the creation of a complete and universal bibliographic record of all documentary material is a utopian ideal, as pointed out by Chaplin, a more realistic goal as embodied in the idea of UBC would be improvement in national records and in techniques of international communication. In 1975, many efforts were directed toward the promotion of UBC in various parts of the world. UBC and international standardization were central themes at the RTSD meeting during the ALA Annual Conference. "Towards Universal Bibliographical Control in Southeast Asia" was the theme of a conference held in Singapore in February, with discussions on the improvement of national bibliographies in southeast Asia and standards for multilanguage, multiscript national bibliographies. Asia and standards for multilanguage, multiscript national bibliographies.

The success of UBC will depend to a large extent on the degree of effective national and local bibliographic control. Among the major recommendations of the Intergovernmental Conference on the Planning of National Documentation, Library and Archives Infrastructures held in Paris in September 1974 is the concept of national information systems (NATIS).<sup>44</sup> Green presents an overview of NATIS as a means toward achieving UBC and describes its essence, significance, and requirements, and a new serial entitled *NATIS News* is being issued by Unesco to provide news related to the program.<sup>45</sup>

National bibliographies compiled in accordance with internationally acceptable standards are prerequisite for effective national bibliographic control leading to universal bibliographic control. There are many countries in the world which do not yet have such bibliographic control. One

of the efforts in this direction was manifested at the Planning Meeting on National Bibliographies of the English-Speaking Caribbean held in 1974, at which each territory agreed to produce a current national bibliography of national imprints using ISBD(M): International Standard Bibliographic Description for Monographic Publications, ISBD(S): International Standard Bibliographic Description for Serials, and other international cataloging standards. This meeting was followed by a Regional Workshop on National Bibliographies of the English-Speaking Caribbean.<sup>46</sup>

In the United States, efforts are also being made toward more effective national bibliographic control. A body named the Advisory Group on National Bibliographic Control has been established through the joint effort of the National Science Foundation, the National Commission on Libraries and Information Science (NCLIS), and the Council on Library Resources (CLR), with the responsibility of advising the sponsoring agencies on how best to coordinate their programs and recommending priorities for action. When requirements for specific projects to enhance national bibliographic control are agreed upon, the sponsors will be asked to set up working groups for each task.<sup>47</sup>

Networking, the central idea in library cooperation and an important ingredient of UBC, remains a much-discussed topic. Networks, as well as publications about them, continue to proliferate. One can rarely open a journal in the field of library and information science without encountering items related to networks and networking. Only those activities and publications related to cataloging and classification will be discussed here.

Several recent publications contribute to our knowledge of the current status of networks and the technique of networking. Goldstein and Miller provide a state-of-the-art report on the current network scene in this country and the use of computers and communications technology in libraries.<sup>48</sup> Also included is a directory of selected networks. Butler presents a survey of the current status of library networking in the United States and discusses network organizations, resources, factors in network development, and the future of library networks.<sup>49</sup> On the technical aspects, Waite discusses the basic considerations in the design of library networks.<sup>50</sup> Parker, reflecting on the organizational nature of library networks, identifies resources, directories, communications, users, and management to be the basic components.<sup>51</sup>

At the center of the discussion of national bibliographic control and library cooperation is the proposal of a nationwide network put forth by the National Commission on Libraries and Information Science (NCLIS). The proposal, first issued in 1973, has now reached the fourth, and presumably the final, draft.<sup>52</sup> The third draft, also issued in 1975, contains a new chapter on the information industry, or the private sector, which was heavily criticized and was rewritten in the fourth version of the document.<sup>53</sup> Like the earlier versions, the final draft again drew fire from the library and information community. Lacy criticizes the proposal for placing too great an emphasis on elec-

tronic networking and urges greater attention to the responsibility of seeing that "individual libraries exist where they are needed and have the resources to do what they are needed to do." Starr is concerned about the possible result of creating more bureaucracy; and Simpson feels that the system, "in trying to satisfy all those consulted, is flabby and cumbersome" and therefore will lack impact. Nyren suspects that "if successful, the Commission will put most of their winnings into services for research scientists, and that they will buy precious few books for a local library." 55

At the ALA Conference held in San Francisco, Executive Director Robert Wedgeworth criticized the document, but the Council voted to "concur in concepts and recommendations" of the report and commit ALA to maximum cooperation with NCLIS in implementation and further development of the "Goals for Action." Although the document, as it stands now, has been considerably expanded from the central idea of the nationwide network set forth in the first draft, it still emphasizes the network concept, which is now one of eight objectives. It contains specific recommendations concerning the development of bibliographic standards for various types of materials as well as standards in the areas of computer technology, telecommunication, reprography, and micrographics.

As a first step toward the realization of the nationside network, the Library of Congress and the National Commission on Libraries and Information Science have announced the selection of an advisory committee and a principal investigator (Lawrence F. Buckland) for a study of the role of the Library of Congress in the nationwide network, which will review work in progress at the library, existing plans for a national bibliographic service, and the major characteristics of existing or planned networks, and will draw up guidelines to networks that will eventually be assimilated into the national scheme.<sup>57</sup>

On the regional level, existing networks continue to be active. OCLC (Ohio College Library Center), currently the largest network operation in this country, entered the fifth year of its on-line shared cataloging system, serving more than six hundred libraries with a rapidly growing data base.<sup>58</sup> Nitecki reviews the impact of the OCLC system on the administration of the technical services operations in a large university library.<sup>59</sup> Another user observation provides the results of a survey of the impact of OCLC on departmental organization and inter- and intra-departmental relationships in thirteen libraries in Ohio.<sup>60</sup>

BALLOTS (Bibliographic Automation of Large Library Operations using a Time-sharing System), which was developed at Stanford University beginning in 1967 and has been operational since 1972, is extending its services to other libraries in California and out of state. Stanford University has received a grant from the Council on Library Resources to undertake new development tasks toward a California library automation network.<sup>61</sup>

In June 1975, the BALLOTS network cataloging system was implemented. Seven public libraries in California, as participants in a pilot

network called PLAN (Public Library Automation Network), have been linked to BALLOTS.<sup>62</sup> BALLOTS' services include bibliographic searching and catalog card production. Its data base contains some 500,000 books (50 percent of which represent foreign imprints) cataloged and acquired by the Stanford University Libraries since 1972.<sup>63</sup> A network library may use the BALLOTS system through the TYMNET (Tymshare Corporation) communications network or over regular telephone lines. BALLOTS is exploring the possibility of communication between the California network and other networks and bibliographic centers in the western region.<sup>64</sup>

The developments of these two large systems in the United States are being observed with interest in other countries. Neubauer compares the two systems, commenting that OCLC, in particular, has been regarded in Germany as a sort of prototype for an on-line shared-cataloging

system.65

In addition to OCLC and BALLOTS, another large bibliographic data base is maintained by BIBNET, an on-line service operated by Information Dynamics Corporation since 1973 which provides access to the author/title computer-generated indexes to some 1.25 million LC catalog records since 1969 and to the more extensive 3.5 million-item LC number index, and LC MARC data.66

With OCLC, BALLOTS, and BIBNET providing on-line access to their data bases, regional networks continue to expand and new ones are being planned, formed, and developed. Existing networks, such as the New England Library Information Network (NELINET), continue to be active. Gribbin discusses the factors in the organization of SOLINET, which became operational in 1975.67 AMIGOS, a network of fifty-eight libraries in five southwestern states, has plans to implement the OCLC system in thirty-five libraries by the end of 1975.68 WICHE (Western Interstate Commission on Higher Education) is actively developing its proposed seventeen-state bibliographic network called Western Interstate Bibliographic Network.69 A network in the Midwest called MIDLNET (Midwest Region Library Network) has been formed with fifteen participating libraries.70

Networking activities involve and affect the entire library system and all facets of library service, but their implications for cataloging are particularly significant. At the heart of networking activities is the idea of cooperative and consolidated efforts in creating and distributing bibliographic records. Advances in modern technology have made possible these cooperative efforts. On the other hand, as discussed below, they have also affected the direction of the developments of various aspects

of cataloging.

## Descriptive Cataloging

In this area, the revision of the Anglo-American Cataloging Rules (AACR) dominates the news and literature in 1975. Work toward the second edition is progressing steadily. It was a major item of discussion at

both the Midwinter and the Annual ALA Conference. Progress on code revision is reported regularly in Library Resources & Technical Services. In January, the Joint Steering Committee for the Revision of AACR issued a statement of underlying principles for the revision: the second edition of AACR will conform to the Paris Principles and ISBD(M), will take particular account of developments in the machine processing of bibliographic records, and will base the revision of Part III primarily on four basic documents: Standards for Cataloging Nonprint Materials of the Association for Educational Communications and Technology (U.S.); Nonbook Materials: The Organization of Integrated Collections of the Canadian Library Association; Non-book Materials Cataloguing Rules prepared by the Media Cataloguing Rules Committee of the Library Association (U.K.); and sections of chapter 14 and the revised chapter 12 of AACR, North American Text (U.S.).71 To facilitate the work of revision, Waterstreet has compiled a bibliography of publications related to AACR of 1967.72 To inform librarians of the progress toward the new addition, Edgar provides an overview of the proposed changes with comments by Spalding, Richmond, and Hagler. 73 On the revised chapter 6 published separately as a pamphlet in 1974, Coe's guide summarizes the major changes.74

In revising AACR, international standardization is of foremost consideration. The fact that AACR's sphere of influence extends far beyond the English-speaking countries is evident from literature and discussions at conferences. An Anglo-Nordic Cataloguing Seminar on the Revision and International Use of AACR organized by the British Library Association was held in April, with over one hundred participants, including thirty representatives of the Scandinavian countries—Norway, Sweden, Denmark, and Finland. Among the topics discussed were the problem areas of AACR and the development of the four Nordic cataloging codes in relation to AACR.75

In the development of the new German cataloging code, Regeln für die alphabetische Katalogisierung (RAK), compatibility with international agreements is also a major consideration. Kaltwasser considers the relation and conformity of RAK to international cataloging practice, and Jung discusses RAK with regard to international standardization of cataloging rules. In Johnson, in a comparison of RAK with AACR, finds general agreement between the two codes with certain variations.

The eagerly awaited revised chapter 12 of AACR finally appeared toward the end of 1975.78 The revised chapter has been expanded considerably beyond the original version which covered motion pictures and filmstrips only. In the revision, chapter 12 has been rewritten to improve the rules of motion pictures and filmstrips, with additional, new rules for other media which were not covered in AACR previously. The rules for slides and transparencies have also been moved from chapter 15 and incorporated in the revised chapter 12. For the lack of an internationally accepted ISBD for nonbook materials, the terminology, punctuation, and general arrangement of elements of description in the revised chap-

ter 12 have been patterned after the provisions of the revised chapter 6. However, as pointed out in the preface, this revision should be "considered only as an interim answer to the frequent pleas for rules covering a wider range of nonprint materials" because of recent and impending developments in the cataloging of nonbook materials, namely, the work in progress on an ISBD for nonprint material and the preparation of a second edition of AACR. It is anticipated that the rules for cataloging nonbook materials will undergo further revision before their incorporation into the second edition of AACR.

The process involved in the preparation of the revised chapter 12 is discussed by Tucker, who was primarily responsible for the drafting. The Hagler discusses the problems encountered in standardizing rules for cataloging nonbook materials, the inadequacies of the current AACR in light of its history, and the revision of AACR with regard to the rules

for nonbook materials.80

In the meantime, several works on various types and aspects of nonbook materials have appeared. Daily presents an approach to the cataloging of phonorecordings based on the "unit-entry" system and claims that with this system, technical assistants can be trained to do original cataloging of sound recordings.81 Foreman discusses the problems involved in the bibliographic systematization of sound recordings and associated material: entry, layout, typographical style and abbreviations, arrangement and sources, and identification.82 Hill has prepared a manual for organizing the picture file used primarily by teachers.83 Berner discusses various levels of bibliographic control of manuscripts: initial control (the group of accession), further control (subgroup), series-level control, folder-level control, and proper-name control and subject access.84 Smith and Treese describe a system of computerized bibliographic listing of art exhibition catalogs.85 For background material, Grove's study traces the history and recent development in the cataloging and processing of nonbook material.86

Among the efforts toward international standardization in recent years, the most encouraging achievements are seen in the area of cataloging. The Paris Principles of 1961 have been used as the basis for developing rules for entry and headings in cataloging codes. ISBD(M) is gaining wider and wider acceptance as the basis for bibliographic description of monographs. It has been translated into at least eight languages, including Polish, Serbian, and Slovene. International standardization in the cataloging of nonbook materials is being sought through the development of an ISBD for nonbook materials. IFLA has established a working group for this purpose, and a first draft has been prepared and distributed to its members for comments.87 A Working Group for ISBD (Maps) has also been formed and one for ISBD (Rare Books) is being considered.88 While the ISBDs for various types of materials are being developed and contemplated, the establishment of a generalized standard for bibliographical description which will presumably be able to deal with all types of materials has been proposed.89 Along this line, Lamy-Rousseau's earlier experiment with ISBD resulted in a manual presenting an ISBD for all types of material for use in mechanized cataloging systems.<sup>90</sup>

Compatible entries are prerequisite for effective interchange and exchange of bibliographic records. Several steps have been taken toward ensuring better control of name headings in bibliographic records. Library of Congress Name Headings with References, issued serially beginning in 1974, is an essential tool for this purpose.91 One of the first working groups established by the Advisory Group on National Bibliographic Control mentioned earlier is the Working Party on Bibliographic Name Authority Files. Among its basic assumptions is that a coherent national approach to the creation, maintenance, and dissemination of name authority files is of critical importance to national bibliographic control.92 Two IFLA publications should also contribute to the standardization of headings in bibliographic records: the List of Uniform Headings for Higher Legislative and Ministerial Bodies in European Countries and Verona's study of corporate headings based on an examination of numerous cataloging codes, national bibliographies, printed catalogs, and printed lists of corporate headings.93 Verona's work, which illustrates the diversity of treatment accorded to corporate authors in various countries, represents an important step in the effort toward an agreement on the use and form of corporate headings.

In the realm of cataloging theory, several works are worth mentioning. Domanovszky examines the basic functions of the author-title catalog, which are judged to be to convey information about books, editions of works, and authors' oeuvres, and reaffirms the principle of author main entry. Hunter has updated and rewritten Quigg's Theory of Cataloguing. Kumar and Kumar have also produced a treatise on the theory of cataloging. For those who are interested in the historical background of cataloging theory and codification, Jewett's writings on cataloging, including his "Rules for Preparing Catalogues," have been made available again through a reprint edition of his works. For the administrator, Foster provides a discussion on the management of the catalog department. Foster provides a discussion on the management of the catalog department.

## Subject Analysis

Classification continues to be a prolific field. A new journal entitled *International Classification*, devoted to the theory and application of classification systems and thesauri, has been launched, with the hope that its international scope will contribute to universal bibliographic control by fostering better understanding and standardization of classification systems and practice.<sup>99</sup>

Several works contribute to the study of classification in general. The proceedings of a conference held at Ottawa in 1971 contain papers presented by well-known classificationists and philosophers, dealing with the problem of the overall classification of knowledge from a fundamental point of view. Dahlberg explores the possibilities and problems of forming a universal classification system of knowledge and Beck discusses the philosophical and mathematicological foundations of the

formation of classes.<sup>101</sup> Sayers' *Manual of Classification*, long considered a classic in the field, appeared in its fifth edition, thoroughly revised and rewritten by Maltby, incorporating modern classification theory and practice.<sup>102</sup>

"Ordering Systems for Global Information Networks" was the theme of the Third International Study Conference on Classification Research, held in Bombay in January 1975. Three specific topics were discussed: (1) linguistic research in classification and information processing, (2) recent developments in the theory of classification and the role of classification and other switching mechanisms in global information networks, and (3) the impact of modern technology on information systems. 103

While the nature, form, and function of the catalog are being reexamined, the nature and function of classification and particularly of the two major classification systems have also come under close scrutiny, as attested by the issue of *Drexel Library Quarterly* devoted to papers on the general background and history of classification, descriptions and evaluations of major systems, and research and future of classification.<sup>104</sup>

The Dewey Decimal Classification (DDC) and the Library of Congress Classification (LCC), the predominant systems used in American libraries, remain at the center of attention in this country. Several publications provide comparisons of the two systems. Stevenson discusses the two systems in the historical context and comes to the conclusion that the future of classification in the United States will be determined by what it is that librarians want from a classification system and that our two systems do seem satisfactorily to serve the purpose of organizing materials on shelves. 105 Tauber and Feinberg summarize the advantages and major criticisms of DDC and LCC and discuss the problem of reclassification. 106 In a survey of the classification systems used by 1,160 academic libraries, Mowery reports that while more than half of them use LCC, the "trend to LC" had lost momentum throughout 1968-71.107 Walker compares LCC and DDC with regard to classifying materials on fine arts. 108 Buth compares and evaluates four existing systems, including LCC and DDC, used for the purpose of classifying scores and sound recordings. 109 The findings of a study on the relative efficiency of DDC and LCC as tools for machine retrieval, which was conducted by the Technical Processes Research Office of the Library of Congress, show that "in the present state of the MARC retriever, DC numbers were significantly more efficient than LC numbers for searching a broad topic" and that LCC, being a highly detailed enumerative classification, is better suited for narrowly defined searches.110

Revision of LCC continues on the schedule-by-schedule basis. Parts of the K (Law) class are being developed and published. With regard to application, Amaeshi discusses the problem of classifying modern African literature by LCC and suggests that a new subclass PP be allocated to this body of literature.<sup>111</sup>

As a tribute to the Dewey Centennial, "Major Classification Systems"

was chosen as the theme of the twenty-first annual Allerton Library Institute. The focus was on the historical and international aspects of DDC. Also included were discussions of general and theoretical aspects of classification and other major classification systems.

On the application of DDC in other countries, Dewey Decimal Classification and African Studies contains selected papers presented at a conference on the problems of classifying Africana.<sup>112</sup> Dhyani discusses the inadequacy of DDC with regard to the treatment of religions and languages of India and the areas table for India.<sup>113</sup> As the result of an exchange program between the Library of Congress and the British National Bibliography (BNB), Adams reports her observation of the application of DDC at BNB, and Trotter describes both the application and the editorial procedure carried out in preparing a new edition of DDC at the Library of Congress.<sup>114</sup>

Schaefer, comparing the phoenix schedule 510 in DDC 18 with the original schedule in DDC 17 as well as the classification scheme of the American Mathematical Society, concludes that DDC 18 is an improvement over DDC 17, both in content and structure, but that it still is inadequate for classifying contemporary mathematical literature.<sup>115</sup>

Work toward the nineteenth edition of DDC continues. It is reported that the major changes will be a phoenix schedule for Sociology, the combination of 324 (Electoral process) and 329 (Practical politics, Political parties) into a single revised sequence, and revision of the 900s, including the treatment of civilization and the new areas tables for the British Isles already approved and implemented by the Library of Congress and BNB.<sup>116</sup> To understand the application of DDC in libraries, Forest Press has sponsored a survey, conducted by the Library Research Center at the University of Illinois, on the use of the system by U.S. and Canadian libraries.<sup>117</sup> Parts of the results of the survey were reported at the Allerton Institute.

Concerning the Universal Decimal Classification (UDC), Wellisch discusses its present status, some of its problems, and the immediate plans and projects for revision, including the development of BSO (Broad System of Ordering, later renamed SRC [Standard Reference Code]). 118 Rigby traces the development of computer applications for the arrangement, storage, retrieval, and display of literature references or classification schedules, vocabularies, and indexes used with UDC; reviews the activities of the Subcommittee on Mechanization of UDC of the Central Classification Commission of the International Federation for Documentation over the past decade; and describes more than sixty experimental or operational systems attempted in a dozen or more countries during the past ten to twelve years. 119

In relation to the Colon classification, the papers presented at a memorial meeting for Ranganathan have been published, paying tribute to Ranganathan's contribution to librarianship and information studies. Schulte-Albert traces the idea of faceted classification to seventeenth-century pioneers of conceptual classification, Cyprian Kinner, George Dalgarno, and John Wilkins. 121

Revisions of two specialized classification schemes appeared in late 1974 and 1975. Foskett and Foskett have revised *The London Education Classification* ten years after the first edition. A revision of *Classification of Library Science* (1965) appeared under the title *A Classification of Library & Information Science*, edited by Daniels and Mills. 128

The long-awaited eighth edition of Library of Congress Subject Headings (LCSH) finally appeared. 124 The new edition represents a cumulation of the headings in the seventh edition and the subsequent supplements through 1973. The introduction has been expanded considerably with a detailed discussion of the most commonly used subdivisions. The two-volume edition also includes the list of subject headings for children's literature, which was published previously only under separate cover. The new edition of LCSH, derived from the machine-readable subject headings file, is also available on microform. Using a group of pilot libraries, LC's MARC Development Office has conducted an evaluation of the use of the microform edition, in order to obtain data to determine the optimum cumulation of LCSH in conventional print or microform editions, the best microform for a publication of this size, and possible use of microforms for other LC printed products.<sup>125</sup> In the meantime, criticisms of LCSH continue to appear in print. Kanwischer reports on the results of a questionnaire concerning user satisfaction with LCSH and discusses the complaints and problems voiced by the respondents.126 Dickinson points out evidence of sexism, ageism, and racism in LCSH.127 With regard to the criticisms and user concerns, the Library of Congress is making efforts to communicate its decisions and policies to libraries on a much more timely and explicit basis and to bridge the gap between the vocabulary of the reader and the vocabulary of the subject headings system. 128 One decision announced recently is that the Library of Congress has no plans at the present time for a radical revision of LCSH. Instead, it is proceeding on the presumption that "the list will continue to evolve on a time-available basis." 129 On the theoretical aspect, Bhattacharyya discusses Cutter's procedure of deriving subject headings for syndetic specific subject indexing in a dictionary catalog.180

As in the past years, considerably more literature on indexing appeared than on subject headings. From the extremely prolific field of indexing, only a few publications, mostly on the subject of language and vocabulary control, which may be of interest to catalogers, are discussed below. Hutchins presents a study of the linguistics of indexing and classification which describes the features of the languages used to represent the subject content of documents in terms of their linguistic structures and linguistic functions. Soergel provides a detailed study of the construction and maintenance of indexing languages and thesauri. Bookstein and Swanson describe an indexing procedure which was developed through mathematical techniques by means of a model of word occurrences in documents. Salton, Yang, and Yu present a new technique in automatic text analysis, called discrimination value analysis, by ranking the text words in accordance with how well they are

able to discriminate the documents of a collection from each other.<sup>184</sup> Ramsden considers the problems related to the two aspects of subject indexing: naming the subject and displaying the relationships.<sup>185</sup> Willetts reports on a study of the nature of the affinitive relationships expressed through thesaural related terms based on ten thesauri.<sup>186</sup> Neill discusses Farradane's categories of relations viewed as percepts rather than concepts.<sup>187</sup> The proceedings of a conference on informatics held in 1973 include papers covering the conceptual, linguistic, mathematical, and practical aspects of indexing, information retrieval, and classification.<sup>188</sup> On the practical side, Waters proposes a system which would coordinate the activities of a number of abstracting and indexing services in creating and sharing descriptive indexing on-line, patterned after OCLC.<sup>189</sup>

In her study of PRECIS (PREserved Context Index System), the indexing system based on the grammar-syntax idea of context dependency used by the *British National Bibliography* in its subject index, Burkett reviews the criticisms of the system and compares the effectiveness of PRECIS and chain indexing as methods of devising an alphabetical index to a classified bibliography. Bakewell describes the development and current application of PRECIS and briefly considers the future of the system. Halve Bakewell and Hunter discuss the teaching of PRECIS. 142

#### Conclusion

Cooperation is the key to the future. No library or library system, no matter how large it is, will be able to perform centralized cataloging completely for all libraries. It is the realization of the interdependency and the need for cooperation that holds promise for the future. In this light, it is encouraging to observe the increasing efforts made by the Library of Congress in recent years to reach out and communicate with the library community and to base important decisions on the needs of libraries in general as well as those of the Library of Congress itself.

Many things are happening. Great changes are taking place in library service, particularly in cataloging. For some, these may seem too much and too soon. A new era in cataloging and classification with some very fundamental changes is imminent. Some have called it a revolution in the making; others may prefer to view it as yet another manifestation of change in an evolutionary process. Users and catalogers alike will have to learn to adjust to newer methods and different tools. But for those who are willing to project into the future rather than dwell in the past and are more concerned with the content rather than the container of bibliographic records, the transition may be less traumatic.

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# Developments in Copying, Micrographics, and Graphic Communications, 1975

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NY REVIEW OF THE EVENTS during 1975 must begin, as it did A in 1973, with the matter of much concern to librarians-copyright legislation. Retired to the wings in 1974 with the failure of the Ninety-Third Congress to complete action on the bills before it, this matter again loomed large in the center of the stage when the Ninety-Fourth Congress attempted to succeed where its predecessor did not. In mid-May, the protagonists and antagonists were at it again-this time before the House Subcommittee on Courts, Civil Liberties and the Administration of Justice. At issue was the precise meaning of the wording "systematic reproduction of copyrighted works" contained in the previously passed Senate bill. Edmon Low, spokesman for the American Library Association (ALA) and other library groups, asserting that libraries might well be subjected to "harassing but unjustifiable suits" from the publishers because the wording prohibits but fails to clearly define such activity in the interlibrary loan process, urged the subcommittee members to give libraries clear-cut assurance that the making of a single copy as an aid in teaching and research, "including a single copy as part of an interlibrary loan transaction on behalf of the public good," is permissible and not subject to suit. Educators, too, added their voices, seeking a similar exemption for the making of multiple copies of copyrighted materials for classroom use. Publishers, on the other hand, did nothing to assuage the fears of either group by maintaining that the Senate wording was adequate.1 Whether the views of librarians and educators or those of the publishers will prevail must await the final action on the two bills-S. 22 of the Senate and H.R. 2223 of the House-which is predicted by one source for "early 1976." Even then, though, the results may be inconclusive if Congress elects to shift the problem to its newly established National Commission on New Technological Uses of Copyrighted Works which it created in 1974 to recommend changes in copyright law or procedures that will assure for such purposes access to copyrighted works while at the same time providing recognition of copyright owners' rights.

This commission finally got off the ground in midsummer with the appointment by the president of the thirteen members and the provision of federal funds for its operation. Several meetings were held, but more productive activity is expected in 1976 to enable it to meet its deadline of one year for its preliminary and three years for its final report to the Congress and the president.<sup>3</sup> It is to be hoped that in its deliberations this commission will hear the pleas of librarians and educators, and that the results of its deliberations will not suffer the same fate as that of other commissions in the past whose reports seem to have been read, initialed, and ignored.

Copyright law is useful for protecting publishers not only from their adversaries without but also from the encroachments of one on another within. Witness the lawsuit of Johnson Associates, publishers with the copyright owners' consent of periodicals in microfiche format, against Xerox Corporation, charging that that firm, operating through its subsidiary, University Microfilms, violates the federal antitrust laws, a suit in which Johnson is seeking \$3,000,000 and an injunction against the alleged violations. Johnson alleges that Xerox/UM has acquired exclusive rights to over 95 percent of the available material and has thereby created an illegal copyright pool which is a restraint on trade. The injunction seeks to ensure that the periodicals in question will be made available to all publishers. Librarians should indeed be interested in the outcome of this suit, especially if the decision results in more competition for the microform dollar in the library micropublishing industry.

## Macrocopying (Full-Size)

The introduction into the copy machine market of over twenty new plain paper copiers within the past two years has resulted in a slow movement in the copy machine market that presents a rather pessimistic picture of the immediate future.<sup>5</sup> Nevertheless, Eastman Kodak brought out its Ektaprint 100 Copier-Duplicator which will produce on plain bond paper copies at approximately 4,200 per hour. Designed to be used in reproduction services where 20,000–70,000 copies are made per month, it uses a dry electrostatic process to produce an image on a photoconductive film belt from which the image is then transferred to the bond paper.<sup>6</sup> The innovative use of a film belt in lieu of the big selenium-coated drum used in many Xerox copiers would seem to offer some potential for the reduction both in size and weight of future photocopy machines. However, only those libraries having very high volume reproduction services will be interested in this new Kodak product.

## Microform Materials and Micropublishing

With regard to materials, there was noted during the year a growing and deplorable tendency on the part of some micropublishers of library materials to use non-silver halide materials for their micropublications. Allen Veaner, editor-in-chief of Microform Review (MR), called attention to this trend at the beginning of the year in an editorial pointing out the lack of standards, such as exist for properly processed silver halide film, that might permit the gauging of the archival permanence of non-silver materials. Consequently, he asserts, "MR does not believe it proper to employ these materials for micropublications intended for the permanent collections of research libraries."7 Taking a similar position, two committees of ALA's Resources and Technical Services Division-the Standards Committee of the Reproduction of Library Materials Section (RLMS) and the Micropublishing Committee of the Resources Section-acting in a joint session at the ALA Annual Conference in San Francisco in July unanimously recommended "that libraries buy for their permanent collections only microforms (such as silver halide film) for which standards for archival permanence have been established by recognized standards organizations."8 In addition, the California State University and Colleges (CSUC) have proscribed the purchase of any non-silver film for masters and archival purposes and restricted the purchase of diazo and vesicular films to nonarchival-type uses.9 And, finally, is added the voice of Albert Leisinger, Jr., deputy assistant archivist of the U.S. National Archives, who urges archivists who use film for photoduplication of archival materials both for in-house and for external uses to employ only silver halide film because that is the only one to date that is deemed to be permanent for both camera negatives and distribution copies.10

Despite these admonitions against the practice, some micropublishers of library materials continue to use non-silver halide films for their micropublications and more are joining their ranks. The New York Times subsidiary Microfilming Corporation of America is now offering that newspaper on Kalvar (vesicular) as well as on silver halide film because of the "lower prices possible with vesicular duplication." 11 Updata Publications, Inc., of Santa Monica, California, announced plans to publish their U.S. Bureau of Mines Collection of over 6,000 microfiche on negative diazo film of "heavy quality," giving as their justification the statement that: "The use of a new polyester-based diazo film will eliminate the need for envelopes."12 The Congressional Information Service announced plans to conduct a temporary program to supply on demand any of its 30,000 fiche in diazo or vesicular film.13 Bell and Howell's Micro Photo Division, in announcing their takeover of the microform publication of the Joint Publications Research Service (IPRS), indicated that copies would be made on vesicular fiche or 16mm vesicular roll film.14 They also announced their intent to publish The Christian Science Monitor on microfiche or 35mm roll film without specifying the film type, but the sample fiche supplied is of the vesicular variety.15 Obviously, librarians concerned with the longevity of their permanent microform collections are going to have to make a hard choice on whether to buy, perhaps at a cheaper price, micropublications on what may be impermanent non-silver halide materials or to stay with the more expensive but more permanent silver halide film, in those instances where they are offered only one or the other, not both. We suggest the latter, at least until more is known about how to insure and test for the permanency of the images on non-silver materials.

One of these two non-silver films—diazo—occasions another kind of concern, primarily for libraries having their own diazo fiche duplicators. New York City authorities are worried about the pollution problems posed by the storage and use of the gaseous anhydrous ammonia for the development of such film. The National Micrographics Association (NMA) has a committee looking into the matter. The hazards involved in handling the gas have been reported by Alan Horder of Britain's National Reprographic Centre for documentation (NRCd), who also details precautions to be taken to minimize the risks. To

Some members of the micrographics industry hope to solve some of the problems inherent in the unauthorized copying of copyrighted materials, using technical means for the purpose. In last year's review, Spaulding and Fair reported that Xerox had developed a process for making documents uncopiable. This year Scott Graphics demonstrated at the 24th Annual Conference of NMA at Anaheim, California, their new "non-reproducible" microcopy film. 19

The latest, inchoate matter of moment for librarians is the availability in the marketplace of used microforms. Two instances of such offerings came to light this year. One, observed in an advertisement in Library Journal, stated that good second-hand microfilm of periodicals of established micropublishers would be bought and sold by the advertiser-Microforms International Marketing Corp., of Elmsford, N.Y.20 The other appeared in the catalog of the Kraus Periodicals Co., of Millwood, N.Y., entitled "Special Inventory List No. 5," and listed for sale some eighty-one ex-library microfilms of periodicals, including 345 complete and "6 partial" reels of the New York Times. Buying such used microforms sight unseen is a risky business, at best, for they may well have many of the ills that film is heir to-image-impairing scratches, fingerprints, "goo" from dirty hands, unspliced tears or broken pieces, poorly made splices yielding misaligned images, and so on. Other pitfalls may also await the unwary. Some of the Kraus offerings are on 16mm roll microfilm, and much of the photocopying on that size film is done at approximately 27× reduction. Such film may well prove to be uncomfortable to read at the lower magnification found in many library readers, such as the Kodak-Recordak MPE-1 (19x). Moreover, in the case of the New York Times film, the prospective purchaser may well wonder if he is being offered some of the replaced Kalvar vesicular film that in recent years was noted in some instances to have emitted gaseous hydrogen chloride causing storage box and filing cabinet damage.21 And finally it must be pointed out that the purveyor of such used merchandise may not be in any position to offer any assurance as to the archival permanence of the materials used. Caveat emptor!

Of perhaps lesser interest to libraries generally are reports that Kal-

var Corporation has introduced a new non-polarity-reversing vesicular microfilm which it calls "Mikrolith D"<sup>22</sup> and that Dakota Graphics, Inc., has developed a microfilm system using standard 35mm aperture cards, but containing on the film chip 100 highly reduced page images instead of the single page usually found on such cards. Special readers are required to handle the high-reduction ratio used (75:1).<sup>23</sup>

Recession or no, micropublishing activity was rife during the year. Many new projects were launched, others completed, and still others, begun earlier, were continued. Want of space, however, prohibits mentioning more than a few. For example, as mentioned above in another connection, Bell and Howell's Micro Photo Division began issuing on microfiche *The Christian Science Monitor*, the first major U.S. daily newspaper to be published in that format. Admittedly, however, they did have to wait until the paper's pages had shrunk to tabloid size before reproducing them on microfiche.<sup>24</sup>

Readex Microprint Corporation (RM), the only remaining U.S. micropublisher using the micro-opaque format, adopted a rather hard-sell tactic in its latest offering in that moribund microformat. In a letter to subscribers of its Landmarks of Science project informing them that the last shipment thereof was being made, RM, without even bothering to give a list of titles, announced the launching of a "sequel" to that collection and audaciously advised the addressees: "Unless we hear from you to the contrary, you can look for your first shipment in this important project some time in the fall of 1975." One wonders if this hard-sell approach was provoked by the partial boycott of micro-opaques by the California State University and Colleges, who proclaimed their intent to "abandon the purchase of micro-opaques and microprint except where necessary to complete sets to support academic programs..." 26

Taking advantage of the release of hitherto classified information as a result of Executive Order of 1972 and the new Freedom of Information Act Amendments, the Carrollton Press of Washington, D.C., began publishing over 11,652 declassified documents, with more expected to follow—all on microfiche.<sup>27</sup>

The New England Board of Higher Education signed a contract for the filming as a pilot project of about 400,000 pages of agricultural documents located in six public land-grant universities in the New England area. The purpose is to develop a microfilm archive of these holdings for deposit with the National Agricultural Library in Beltsville, Maryland, one of the supporters of the project, and to share the experience gained with other such institutions in the U.S. Target date for completion of the filming was set for 1 December 1975.28

In the federal government sector, activity was brisk also. The Government Printing Office, at long last, got around to initiating its experimental micropublishing project by undertaking to record on microfiche the 137-volume Code of Federal Regulations—all 68,000 pages. To be completed towards the end of the year, this four-month pilot project will then be subjected to economic analysis and the results forwarded

with appropriate recommendations to the Joint Committee on Printing for a final determination whether to continue the test.<sup>29</sup> The Library of Congress (LC) published the eighth edition of Library of Congress Subject Headings on microfiche on an experimental basis to determine if such publication, frequently updated, is practical. The microform edition, which will consist only of headings and references, is expected to become available six to eight months ahead of the printed paper edition.30 LC's Photoduplication Service also issued on thirty-four reels of microfilm the papers of Frederick Douglass held in LC's Manuscript Division.<sup>31</sup> The Office of Economic Stabilization of the U.S. Treasury Department completed a historical analysis of the Economic Stabilization Program that involved in part the recording on approximately 300 microfiche of the most important publicly available material of the program. 32 Infordata International, publisher of the Index to U.S. Government Periodicals, and Microfilming Corporation of America planned to provide a joint service-"Current U.S. Government Periodicals on Microfilm"-involving the issuing of a complete microfiche collection of all periodicals cited in the *Index*, including a subscription to the latter.33

Simultaneous micropublication had its ups and downs during the year. The University of Toronto discontinued its practice of concurrently publishing in paper and on microfiche owing to lack of demand for fiche copies.<sup>34</sup> On the other hand, Pergamon Press announced the publication in 1976 of simultaneous editions of its more than 240 journals. The fiche editions cost only 80 percent of the paper edition. If ordered with the paper edition, the fiche price is only 50 percent of the paper, and combined subscriptions will automatically entitle the subscriber to free and unlimited right of reproduction, other than for resale.35 (It is not clear whether this last restriction would apply to libraries that charge their patrons for reproductions made for them, or by them, on the selfservice leased or rented photocopy machines found there.) Another publisher of paper books, Academic Press, offers its Library Editions with Microfiche, consisting of AP books whose contents are reproduced on a set of microfiche that are placed in an envelope on the inside back cover of the book.<sup>36</sup> Bell & Howell is querying its customers on the feasibility of issuing curtailed microfilm editions of newspapers in addition to the regular type. These "library editions" would have on film the contents of the paper, exclusive of the full-page advertisements and advertising supplements, with a cheaper purchase price made possible by the reduction in filming needed.37

Using sales tactics reminiscent of those never-to-return days when gas stations enticed customers with giveaways, some micropublishers are offering "free" or discounted equipment with the purchase of sizable packages of their micropublications. Microfilming Corporation of America has been offering for some time the ID 201 reader, which lists for \$1,280, for \$100 and two years' subscription to the New York Times on microfilm that they publish. The whole package costs less than the

reader alone—an interesting demonstration of pricing and marketing policies. Bell & Howell offer their fiche SpaceMaster Reader/Printer (which lists for \$1,088.10) free, except for shipping charges, to purchasers of \$3,000 worth of microfiche periodicals and at a cost of \$600 plus charges to buyers of \$1,500 worth of such microfiche. For the purchase of lesser amounts of such materials small readers are proffered similarly.38 Finally, Inter Documentation Company (IDC) of Zug, Switzerland, likewise offers free or at a reduced price the small portable Fuji RP2 microfiche reader with orders of their microfiche in appropriate amounts.<sup>39</sup> According to their 1974 catalog, IDC made a similar offer involving the portable DASA PMR-50 Model microfiche reader which has now been discontinued. Now, while in fairness to IDC it must be said that they probably did not anticipate the discontinuance when they made the offer, nevertheless libraries must give such offers a hard look, lest they be saddled with obsolescent or obsolete equipment for which lamps, parts, service, and supplies may rapidly become unavailable. And compatibility with microform holdings must also be considered, for it was found that the Fuji reader, having only 17× magnification, does not permit comfortable reading of the 24x-reduced microfiche in current production in the U.S.

In activity on other fronts, the Reprinting Committee of the Resources Section of RTSD issued the final draft of its guidelines for libraries for lending to reprint and microform publishers.<sup>40</sup> In Britain two publications of interest to acquisitions librarians were issued in microfiche format. University Microfilms, Ltd., published on 126 fiche their *International File of Microfilm Publications and Equipment* containing some 11,000 pages of information about micropublications, equipment, and services, along with a paper copy index.<sup>41</sup> And Blackwell Bibliographical Services, Ltd., of Oxford initiated in February a service providing in microfiche format listings by author, title, and subject of forthcoming books from cooperating publishers.<sup>42</sup> In the U.S., Xerox/University Microfilms announced unit price increases of microfilm copies of doctoral dissertations and masters theses from \$5.00 to \$7.50 and of xerographic paper copies from \$11.00 to \$15.00 each, respectively.

## Micrographic Equipment and Processes

As in past years, the National Micrographics (formerly Microfilm) Association's (NMA) annual conferences continue to be the most fruitful source of information regarding matters to be covered under this rubric. Held in April in Anaheim, California, the 24th Annual Conference and Exposition offered about 100 exhibitors the opportunity to display their wares.

One of the exhibits that attracted much attention was that of Dymat Photomatrix Corporation's Semi-Automatic Microfiche Reader, Series 400, a machine that features a semiautomatic mechanical positioning system with keyboard controls that permit locating a specific frame on

the fiche once it has been inserted in the carrier. Minolta also exhibited a similar automatic reader, at the same time.<sup>43</sup> Washington Scientific Industries demonstrated their Informant, a small briefcase-type front-projection microfiche reader that projects the image on its own screen inside the lid or on a wall, using any one of six different magnifications that are available.44 Alos, Ltd., of Switzerland displayed their modular line which employs an electrostatic printer unit that can be combined with either their 16mm roll film or their microfiche reader units to produce positive or negative prints at any one of six different magnifications. 45 Xerox Corporation introduced their new 970 Microfiche Printing System, a high-volume microfiche enlarger-printer that will print onto plain bond paper approximately 3,300 copies per hour. It has one serious deficiency for library use, however: it accepts for printing only negative fiche and many library fiche are of the positive type.46 Canon USA exhibited a high-volume aperture card enlarger-printer, its NPMatic Printer 200, for producing plain paper copies in two sizes—81/2-by-11 or 11-by-17 inches.<sup>47</sup> And Bruning demonstrated its OP-10 Table Top Microfiche Duplicator which will expose and develop up to 200 diazo fiche per hour per unit.48

Information regarding micrographics equipment came from other sources than the NMA Anaheim Conference. At the First Annual Library Microform Conference, held in New York City in early October, were exhibited several new microform readers. Mentioned earlier was the Fuji RP2, the personal portable microfiche reader being offered by Inter Documentation Co., Zug, Switzerland. This instrument, having no screen of its own but projecting instead onto a sheet of white paper, is a very compact package that can be carried underarm much as a folding umbrella. The picture projected was of high quality, but unfortunately, as pointed out above, the reader comes only with a 17× magnification that does not sufficiently enlarge the images done at 24× reduction of the standard U.S. fiche to permit comfortable reading. If Fuji could modify the reader to accommodate the 24× reduction and at the same time keep the price modest, there should be a market for such a personal microfiche reader. Seen also at the conference exhibit was Library Microfilms and Materials Company's LMM Advantage Library Microfiche Reader. This device has a screen of sufficient size to permit the projection of a double-page spread of books and journals in full size. It has also an interesting and unusual feature in that it has two lenses in a carrier that enable the user to project the print in normal size by means of one or enlarged with the other to 21/2 times normal size for those with impaired vision. The image can be rotated-a great convenience, should the fiche contain tables or other illustrations that have been printed side-wise. This is an excellent reader, projecting crisp, clear images on the screen; it has (like its forebear, the LMM Superior roll film reader) what some may consider an advantage and others a drawback: it is built into and is integral with a study carrel thirty inches deep, forty-eight inches wide, and sixty inches high.49

Elsewhere, Xerox/University Microfilms (XUM) announced the availability of their "new" Xerox 350 Microfilm Reader. Many readers of this review will recognize this as an updated version of the University Microfilm 1414 Reader and of the Dukane Explorer 14 Microfilm Reader. The updating, however, did produce at least one improvement by providing on the front panel clear, explicit, step-by-step instructions, with film threading diagram, for using the machine. But it still suffers from the shortcoming of its predecessors by virtue of having only 90° image rotatability, and a relatively small screen.<sup>50</sup> In Britain, Microfilm Equipment, Ltd., of Thetford, Norfolk, has developed a random access retrieval system for 16mm roll film, using Memorex-type cassettes holding film lengths of twenty-one meters which, done at 30× reduction, yield over 2,100 images per length.<sup>51</sup> A British product of possible interest to rare book librarians is a device shown in prototype only at several U.S. locations. By making use of a large prism coupled with a motor-driven 35mm camera with 250-exposure capacity, the device makes it possible to photograph books a page at a time without opening them more than forty-five degrees. The developer, Scolar Press of London, solicited comments and reactions from those viewing the instrument in action with a view toward determining if it is marketable.<sup>52</sup> Consumer & Library Microforms, pressing for the development of low-cost fiche projectors for home use, claims that it "cannibalized" a few viewers and assembled its own portable projector which it estimates could be manufactured and sold in volume for \$29.95.58

With microform collections expanding every year, many libraries are becoming more interested in accessories, such as storage containers. Several new varieties of these are available. One, that of Microfilm Enterprises, East Brunswick, New Jersey, was shown at the NMA Anaheim Conference. It is a modular microfilm storage system which accommodates 16 or 35mm roll film in either boxes or cartridges. Holding several rolls of film, each module can be interlocked with others in different configurations.<sup>54</sup> The Systematic Storage Co. of Bloomington, Illinois, offers its Microvox Reel-Cartridge Storage containers that are made of plastic in a book cover design and accept either twelve 16mm or eight 35mm reels or cartridges of microfilm. Used with the spine labels supplied, these units are claimed to be readily fileable on book shelves along with bound volumes of paper copies.55 Princeton Microfilm Corp. of Princeton, New Jersey, offers the Princeton Micro-Shelf which consists of plastic, open-front, two-column pigeonhole-type enclosed racks that expose the labels of the horizontally filed film boxes that are stored there. Eighteen 16mm or ten 35mm cartridges, magazines, or reels can be filed in each rack and interfiled on book shelves alongside bound volumes.<sup>56</sup>

Escalating paper prices are causing some drastic rethinking by some segments of the publishing industry about some of their processes. Already mentioned above is the move by *The Christian Science Monitor* to the smaller, paper-saving tabloid size for that newspaper. The Los Angeles Times, too, is reducing its page size to 133/4 inches wide and 223/4

inches deep, thereby reducing the number of columns per page from the conventional eight to six. By using the smaller sheets, the newspaper estimates a savings of around \$5,000,000 on the cost of newsprint.<sup>57</sup> One journal, at least, is solving the problem by resorting to "miniprinting" and some others are considering doing so. This is a procedure that involves reducing the original typescript pages of a paper so that nine such can be accommodated in the reduced size on a single journal page. The Journal of Organic Chemistry has been using this technique since 1974 for a part of its publication, and Astronautics and Aeronautics editorially argues somewhat unpersuasively that such procedure is "so much more convenient than taking a microfiche negative to a microfiche reader somewhere." While "miniprinting," which requires a magnifying glass to render it comfortably readable, may be suitable for small, special libraries, its use in larger ones may well impose on the staff the unwanted burden of trying to prevent such a small item as a magnify-

ing glass from going astray.

For evaluations of microform equipment Library Technology Reports (LTR) continues to be invaluable. In January, reports were made on the Canon Canorama Reader 400 (fiche), the Information Design 201-1 (roll film), the Library Resources Microbook 710 and their Microbook 912 (both "ultrafiche" readers), the Micro Design Model 100A fiche reader, the Realist Vista-Viewer, Model 3340 fiche reader, the Visidyne Voyager I fiche reader, Washington Scientific Industries' Mini-Cat 1114 fiche viewer, and the UMF Ultra-Viewer 144A for high-reduction fiche.<sup>59</sup> In March appeared LTR's reviews of three microfiche readerprinters-the Micro Design RP 550, the MISI (Microfilm Information System, Inc.) 1201 and 1202, and the OCE Model 3650. Also commented on at the same time was the LMM (Library Microfilm and Materials Co.) Reel Easy Receptor, a film-handling system that makes use of the Velcro fastening principle for attaching the film leader to the take-up reel. The reel can be firmly mounted to the spindle, if desired, thus ending the difficulties caused by patrons who neglect to rewind the film after use. 60 Of possible interest to catalogers are the comments made in the March issue about the Knoxville Photocopy Catalog Card Enlarger, a modified Dennison electrostatic, coated-paper photocopier that has been altered to produce enlarged copies of the half-size  $N\hat{U}C$ -type entries. It will not reproduce full-size catalog cards, nor will it produce cards on standard library catalog card stock.61

In Britain, the National Reprographic Centre for documentation (NRCd) is engaged in similar equipment evaluation and often exchanges its reports with LTR, reprinting some of the latter in its publications from time to time. The results of its work are embodied in full-length Technical Evaluation Reports (TER) that are summarized in its journal, Reprographics Quarterly. In the latter were published during the year evaluations of the AGFA-Gevaert Copex LP3 Microfiche Reader, the NCR 305 Microfiche Reader (similar to the U.S.-made Quantor Microfiche Display, 'Q305), and the Sperry Remington 211 Microfiche

Reader (similar to the U.S.-made SEACO Microfiche Reader, 210).62

Considering the evanescent character of much microform equipment and the problems of obtaining lamps, parts, service, and supplies (for printers), libraries naturally become quite apprehensive when word is bruited around that the manufacture of equipment they possess is about to be discontinued. Such was the case in the ALA Midwinter Meeting where a story circulated to the effect that the National Cash Register Co. (NCR) and the Readex Microprint Corporation were planning to discontinue manufacturing their micro-opaque readers. A check revealed that, though NCR was no longer manufacturing Microcard (microopaque) readers, it would continue to supply parts and that Readex Microprint's readers are still being manufactured and, according to RM officials, will be available indefinitely.63 Since RM is now the sole producer of micro-opaques (its Microprints) in the U.S., just how long "indefinitely" is may well be determined to a large extent by how many libraries elect to follow the practice mentioned earlier of the California State University and Colleges and refuse to purchase new micropublications in micro-opaque format, unless necessary to complete sets to support academic programs.

Abroad, one new development seems worthy of note. The French publication *IG Microfiche*, the monthly journal of the Association pour l'Informatique de Gestion, which is issued only in microfiche format, provides its readers with a means of locating specific information on each fiche by giving a diagrammatic plan of where to find what, using the frame numbers that are clearly marked on the frames themselves.<sup>64</sup> In the U.S., the Diamond Research Corporation developed a process for printing out from microform a continuous tone, using a special electrophotographic paper and toner designated Starfax.<sup>65</sup>

Computer output microfilm (COM) systems and component equipment continue to elicit much attention from the micrographics industry. One British observer, reporting on his impressions of the NMA Conference at Anaheim, asserted that "computer output microfilm set the pace of the show . . . ," and he noted that one speaker at the conference maintained that 57 percent of COM users prefer microfiche over microfilm.66 (Hence a change of name to "computer output microfiche" might well be appropriate if that percentage increases.) At that conference was put on display the Singer Micrographics Systems MS-7000 Dual Plotter/Printer. This uses two COM plotters controlled by a single computer to run 16mm/35mm and 105mm film simultaneously, printing or plotting graphics on either. Equipped with a wide variety of fonts and composition capabilities, the machine may have some potential for a number of COM library operations.<sup>67</sup> Elsewhere, it was reported that Eastman Kodak, RCA, and IBM are exploring the laser COM recording field, an area at present monopolized by 3M, which has the only such recorder in commercial use at present.<sup>68</sup> U.S. Datacorp continues to push its high-reduction fiche for COM recording. These 4-by-6-inch fiche,

done at 72× reduction, will contain up to 750 pages of computer output.  $^{69}$ 

Applications, Audiovision, Facsimile

The practice of using microfilm/fiche and especially COM for reproducing or generating copies of library catalogs appears to be gaining headway, although not without some voiced opposition. In Britain, Le Croissette describes a COM union catalog stored in microfilm cassettes that is available for public use in the Westminster City Libraries in London. Acceptance by the staff and public was characterized as good.<sup>70</sup> Greene discusses the advantages and disadvantages of microformed library catalogs and describes the LENDS microfiche catalog at the Georgia Institute of Technology in particular, while at the same time giving the users' reaction to it.71 The Baltimore County Library, forsaking the printed book catalogs that it used for ten years to serve its seventeen branches, is switching to COM-produced catalog on roll film and expects thereby to achieve a savings of \$25,000 to \$40,000 over the use of the book catalogs.<sup>72</sup> The South Carolina State Library, seeking a means of expediting the processing of the many interlibrary loan requests from the thirty-two county and regional libraries that it serves, has placed microfilm copies of its catalog in those institutions.78 Expressing a dissenting view was Frederick Kilgour, executive director of the Ohio College Library Center (OCLC). When queried in an interview as to whether he was planning to use COM for library catalogs, he replied strongly in the negative, saying that he felt a COM catalog combines the two worst features of the printed catalog in never being up to date and in requiring a visit to the library to use it.74 Although he did not say what alternative he had in mind, presumably he envisions the use of a system like the OCLC net where the operator, by properly addressing an inquiry to a computerized bank of over 1,000,000 catalog entries, receives an answer in seconds on the cathode ray tube display screen.

"Past, Present and Future Applications of Microform in the Library Community" was the title of a paper presented, along with others on related matters, at a panel discussion at the NMA Anaheim Conference in April. In Britain, Thomas describes the problems involved in selecting and implementing a system for recording in microfilm jacket format a great variety of documentation generated both within and without the Consumers' Association. In an article informatively entitled "Phototypesetters—Do They Have an Application in the Small Printing Plant or Reprographic Departments?" the British author identified only by the initials A. E. H. (Alan E. Horder?) gives a very readable presentation of the history of phototypesetters and then relates the recent advances that make them an economical replacement for present day composing systems (IBM, Vari-Typers, etc.) found in small printing units today.

The Los Angeles Times, unable to find suitable copy for filming, had to declare a moratorium on the shipment of its microfilm edition, when

it discovered the poor quality in the filmed copies.78

At least two libraries added microfilming to their facilities or offered to extend their existing services of that type to other institutions not having them. The University of Washington established in its Suzallo Library a new Central Microfilm Unit that is capable of producing and duplicating nearly any type of black-and-white microform. Across the continent in Massachusetts, the Charles H. Hurley Library of the Massachusetts Maritime Academy is offering to do nonprofit microfilming for all New England public and college libraries at a cost that involves film price, processing, and handling in addition to the labor charge. Other libraries having underused microfilming facilities might want to consider following this example.

In another application, the University of Wisconsin-Stout Library found that when it considered publishing on paper its 900-page index to the 1968-73 volumes of Wisconsin Public Documents the cost would be economically prohibitive and so issued it instead on 42×-reduced

microfiche.81

A most intriguing idea—that of using color microfiche as a substitute for slides-seems to be taking hold and is attracting attention in educational, publishing and public relations circles.82 Though for the moment such fiche are mostly used for individual or small-group viewing, such as in medical schools, the extension of the idea, assuming good quality of the picture and the development of a small compact projection apparatus, to large-group viewing presents much appeal to those who have had to lug around large reels or trays of slides and the heavy, cumbersome equipment required to project them. Thomas writes about Kodak's facilities for converting color slides to color microfiche, pointing out that each fiche may contain between thirty and ninety-eight images of such slides.83 Acharia describes a method of making color fiche for use in medical schools without using "complicated machines."84 And finally, Taddeo and Sicles, in separate papers presented at the NMA Anaheim Conference, discuss the problems involved in preparing such fiche and offer guidelines to those wishing to undertake the venture.85

The use of color film for library materials that are to be included in permanent collections is another matter. For one thing, the dyes used in such film are not color-fast, and therefore the colors may fade as the film ages. For another, printed matter reproduced on color film tends to lack strong contrast and so is somewhat difficult to read or print out on paper copy. And finally, many libraries that have rear projection roll or fiche readers may find that their equipment lacks the gray screen re-

quired to give best color rendition.

On the audiovision front, in the struggle between video cassettes and video discs, the latter were given a boost by the introduction of two new discs onto the scene. RCA, using an electronic means of recording sound and picture information onto a disc, plans to offer its Selectavision for about \$400. Philips-MCA, employing an optical procedure involving a laser beam to put the video signals onto their disc, estimates a price of

\$500 for its Discovision. Kriegsman envisions the possibility of all sorts of uses for such discs, which are playable on home television sets, and singles out foreign language study particularly because of the availability on each type of disc of two audio channels that could be used for bilingual sound tracks.<sup>86</sup>

Elsewhere, the Public Television Library of Washington, D.C., encouraged by the reaction to its trial run that ended last year, has decided to reinstitute its "Watch-A-Book" program of renting, selling, or leasing video cassettes to libraries having or expecting to get the Sony U-matic or other similar players required to reproduce them.<sup>87</sup> A contract has been awarded to Telex Communications of Minneapolis to design a combination cassette/phonograph playback machine for the blind and physically handicapped users of the Library of Congress audio books.88 Pisha reports on tests made of some antistatic cleaning fluids and devices for cleaning and preserving phonograph records, finding that static elimination was not successful and of the devices tested only two-the Discwasher and the Watts Manual Parastat-succeeded in restoring dirty discs to their original clean state.89 Many readers by now will have seen the new Sony home mini-TV theater, consisting of a TV device that, using a front-projection method, displays the picture on a built-in screen and thus eliminates the glass picture tubes found in conventional TV sets. If capable of projecting a picture onto a large wall-mounted screen, such a device might well have some application to educational and library needs.

In the facsimile field, two events seemed worthy of note. At the NMA Anaheim Conference, Dobrin and Stafford presented papers discussing the problems encountered in investigating microfacsimile transmission and reviewed the state-of-the-art. The RLMS Telefacsimile Committee sent a questionnaire to all U.S. state libraries using telefacsimile asking for information that would assist the committee in constructing a model that will include costs, modes of operation, staffing, and forms for transmitting bibliographic information. In

## Publications, Research, and Professional Activities

If quantity of publications about micrographics is any indicator of the health of that industry, then in 1975 it certainly was not lacking in

vigor.

NMA continued its publishing by issuing in January the sixth edition of Hubbard Ballou's Guide to Micrographics Equipment in three volumes of a new, large-size 8½-by-11-inch format. Volume 1—Production Equipment—deals with cameras, processors, duplicators, and inspection apparatus; Volume 2—User Equipment—with readers, reader-printers, enlargers, and retrieval items; Volume 3—COM Recorders—with the equipment indicated by its title. Of greatest interest to libraries would be Volume 2, which sells for \$11.00 to NMA members and for \$15.00 to nonmembers. The second edition of the User's Guide to Standard Microfiche Formats, by NMA's Technical Director Don Avedon, was

published later in the year.<sup>98</sup> Microform Indexing and Retrieval Systems, by Marilyn Courtot, secretary of the Federal Government Micrographics Council, is an excellent presentation of its subject,<sup>94</sup> as is also Daniel Costigan's Micrographic Systems.<sup>95</sup> Libraries having microfilming facilities of their own will be interested in the NMA report Residual Thiosulfate Testing Labs. This document contains a list of laboratories capable of performing the tests that are essential to determining the permanence of the images on silver halide film and hence their eligibility to qualify as being of the archivally permanent type.<sup>96</sup> Libraries generally might want to have available the NMA report on Education Courses in Micrographics—which contains a selected list of courses given in micrographics in colleges and universities on a regular basis for credit, as well as regular seminars.<sup>97</sup>

Though most of its contents are of a technical nature and not too relevant to libraries' interests, the NMA Journal of Micrographics did publish during the year a number of articles of general interest. Fenaughty envisions a data computer system using existing equipment and technology that could store all the publications held by the Library of Congress in computer-readable form so that they could be recalled on demand and made available to local libraries, book stores, etc. He estimates that it would take about four years to convert LC's holdings to such a data base.<sup>98</sup> Torok, a librarian, reports on microform uses on the European scene,<sup>99</sup> and Edwards looks at the medium through the eyes of a state librarian, appending to her article a very useful bibliography.<sup>100</sup>

Though its output was substantial, NMA was not the sole producer of publications about micrographics during 1975. *Microform Review* continued its practice, begun the previous year, of publishing works specifically directed to libraries' interests. First came the *Micropublishers' Trade List Annual (MTLA)*, issued in microfiche format only and containing the annual catalogs of some 200 U.S. and foreign micropublishers. <sup>101</sup> Later in the year *MR* published Diaz' *Microforms in Libraries*, a collection of previously published articles appearing in library journals, along with some original contributions. <sup>102</sup>

The quarterly periodical itself, *Microform Review*, contained seventy-six reviews of microform publications, both old and new, as well as many articles on microform matters of concern to libraries. One of these latter that may be especially useful to libraries is Diaz' "Microform Information Sources: Publications and Hardware," a valuable compendium of articles, books, and services providing information about microform publications and equipment. Thoughtful and stimulating, the editorial comments are must reading for anyone having anything to do with microforms in libraries.

The Council on Library Resources published a handbook and associated set of microfiche for use by nontechnical people who might have need to select a microfiche reader or reader-printer. In lucid, nontechnical language, Hawken sets forth the steps to follow in testing the per-

formance of such devices to determine their suitability for library use. 104

The 3M Company announced the publication of a new history of microfilm, covering the span from its beginnings up to the present time. 105

Among its offerings, the Library of Congress included Manuscripts on Microfilm: A Checklist of Holdings in the Manuscript Division<sup>106</sup> and the first two annual supplements to Newspapers in Microform, 1948–1972, entitled Newspapers in Microform 1973 and Newspapers in Microform 1974. Also included were Newspapers in Microform: Foreign Countries, 1948–1972 and the 1974 volume of the National Register of Microform Masters.<sup>107</sup>

The University of Toronto Library, seeking to provide improved access to its microform collections, published a guide to its holdings in that format.<sup>108</sup>

Microfilm Techniques, a controlled-circulation periodical devoted to providing information designed to be helpful to microfilm operators and related personnel, continued in that vein by including articles on removing dust from film, on general film care, on measuring resolving power, on reduction ratios, on the equipment needed for microfilm inspection stations, and on in-house training for quality output—all information that would be useful to libraries having microfilming facilities.

For law librarians, 1975 saw the publication of the third edition of Legal Materials in Microform<sup>109</sup> and Ochal's excellent article summarizing the state-of-knowledge required by such librarians who must handle microform materials.<sup>110</sup>

In Europe, attesting to the increasing interest in micrographics there, two new newsletters appeared on the scene. In January, *Mikrodok* began publication in West Germany and in April *La Lettre de la Microforme* started in France.<sup>111</sup>

During the year, at least one research study that may have some potential for long-range benefits to libraries came to light. Myers summarizes the work done in the recent past on the use of laser beams to record data on non-silver halide media and asserts that "Heat-mode (i.e., laser) recording on non-silver halide media requires no development after exposure. Thus the image . . . is permanent." Should this prove to be true, then perhaps newer, cheaper "films" may be developed that will provide the answer to the archival permanence problem of so much concern to libraries today.

Micrographics standards were the focus of much work and activity on the part of the National Micrographics Association and others. NMA's efforts culminated in the acceptance and publication by the American National Standards Institute (ANSI) of ANSI PH5.9–1975, Microfiche of Documents Standard; of ANSI PH5.19–1975, Microfilm Package Labeling Standard; of PH5.21–1975, 16mm. Cartridge Standard; and of ANSI PH5.22–1975, 16mm. Cassette Standard. Many of these standards and others, being primarily intended for producers, are necessarily couched in precise but somewhat technical language that is all but

incomprehensible to persons with little or no technical background, including many librarians. These people are fortunate to have in Allen Veaner, editor-in-chief of Microform Review and himself a librarian, an intermediary who in his editorial comments in that publication explains in nontechnical terms the meaning of such standards and their significance to the library community. His work, The Evaluation of Micropublications, established the basis for the very important new ANSI Standard for the Advertising of Micropublications, which was published in the spring. This standard, the work of Carl Spaulding, chairman of Subcommittee 35 of ANSI Committee (Z39) on Standardization in the Field of Library Work, Documentation and Related Publishing Practices, of the subcommittee members, and others, spells out item-by-item the information about micropublications that should be provided by micropublishers in their advertising to enable librarians to determine the usefulness of the publications to their libraries. 113 This document is an indispensable vade mecum for all librarians and others who are concerned with the purchase of micropublications.

Standards such as these, however, are voluntary and so compliance may be slow in coming. At least two micropublishers—Northern Micrographics of La Crosse, Wisconsin,<sup>114</sup> and music micropublisher Newton K. Gregg of Novato, California—have fallen in line.<sup>115</sup> It is to be hoped that other micropublishers will find it profitable to pursue the same path.

Now that we have standards established for the advertising of micropublications, what about some for the advertising of equipment? NMA seems to be moving in this direction in its announcement in the spring of the formation of a new standards committee—The Uniform Products Disclosure Committee—"to develop a list of characteristics which should be disclosed in describing each piece of micrographic equipment," such as readers, reader-printers, cameras, etc.<sup>116</sup>

Another new subcommittee was established at the same time by the American National Standards Committee Z39. This subcommittee (37)—on Microform Publishing Statistics—is to be chaired by Robert Sullivan of LC and Robert Frase, consultant.<sup>117</sup>

In addition to the completion of its work on the above-mentioned standards, NMA was busy in other areas. In April at the Anaheim Conference the association announced its change of name from National Microfilm Association to National Micrographics Association in order to reflect more accurately the widened scope of its activities. The title of its official publication was changed from Micro-News Bulletin to Micrographics Today. At the same conference twelve NMA standards committees reported on their work. Urbach describes the work done or being planned by the NMA Education Training Committee, consisting of planning seminars, setting up a speakers' bureau at NMA headquarters, and developing a college support program that will provide junior college, community college, and vocational school instructors with materials which they can use in nonmicrographics courses to cover relevant aspects

of micrographics.<sup>120</sup> (It appears that librarians will still have to go elsewhere to obtain their education in library micrographics.) In its midwinter meeting in October, NMA approved a hike in dues from \$30.00 to \$40.00 per annum and also approved a proposal of its Technician Services Committee to develop a microfilm technician certification program.<sup>121</sup> (Such a program may eventually be of benefit to libraries by virtue of the improvement of the quality of the work output to which it should lead.) And finally, in the middle of the year, NMA, alerted to the recent surge of new micrographics equipment into the marketplace, authorized the preparation of a new 1976 supplement to its Guide to Micrographics Equipment, only some six months after the publication of the basic work.<sup>122</sup>

Most of NMA's activity is directed to the producing end of the micrographics industry and consequently is of only marginal interest to librarians, who are at the consuming end. Carl Spaulding, chairman of NMA's Library Relations Committee, in an effort to redress this imbalance, undertook to investigate the possibility and desirability of establishing within NMA a Special Interest Group (SIG) for librarians. The results of his survey of knowledgeable library microform people as well as others concerned with the library use of microforms, coupled with a lapse of interest on the part of NMA officials, led him to conclude that such a SIG would have no benefits for either librarians or NMA.123 Coming as no surprise, then, are the comments of one attendee at the NMA Anaheim Conference, Alan Horder, Senior Investigator for Britain's National Reprographic Centre for documentation, who, though he found some of the seminars interesting, confessed that the "applications panels . . . in the fields of education and libraries respectively, proved somewhat disappointing."124

Elsewhere, other professional activities more relevant to libraries' interests were taking place. At the ALA Annual Conference in San Francisco in July, the RTSD Catalog Code Revision Committee considered two proposals concerning the bibliographical control of microforms. One of these involved the question of whether the body of the description on catalog cards for retrospective microforms should reflect the original work or the micrographic copy. The other concerned the placement of the medium designator on the catalog card. No agreement being reached, the committee recommended further study that would take cognizance of the views of nonbook media specialists. L25 At the Third Japan–U.S. Conference on Libraries and Information Science in Higher Education, held in Kyoto, Japan, in October, Allen Veaner spoke on microform standards. L26

In Atlanta in May, a micrographics seminar for law librarians was held to coincide with the annual Chapter Institute of the Southeastern Chapter, American Association of Law Libraries. And in New York in October was held the First Annual Library Microform Conference under the sponsorship of two ALA committees—the Bookdealer–Library Relations Committee and the Micropublishing Committee. At this con-

ference of over 300 attendees, papers were presented and lectures given on the microform reading room, preservation and storage, computer output microfilm, bibliographical control of microforms, and micrographics equipment and maintenance.127

In Europe at the Vatican City (Rome) was held in October a colloquium on the care and photographic reproduction of manuscripts and rare books, with representatives of twenty-four major libraries, including two from LC-John Finzi of the Reference Department and Charles G. LaHood, Jr., of the Photoduplication Service-in attendance. The colloquium attempted to come to grips with the problems resulting from the need, on the one hand, of many large libraries to make the contents of manuscripts and rare books available to scholars and researchers, and on the other to make sure that the damage to such materials by the handling involved in photographing them is kept to an absolute minimum. 128

In April the National Science Foundation, the National Commission on Libraries and Information Science, and the Council on Library Resources jointly announced the establishment of an Advisory Group on National Bibliographic Control, which is expected to advise the three sponsoring agencies on how best to coordinate their programs and to recommend priorities for action. 129 (Perhaps bibliographic control of microforms will be high in the list.)

So much for a retrospective view of 1975; for a prospective glance at the future and a finale, we turn to a nonlibrarian, George Harmon, former president of NMA, who in 1973 predicted that there would be expanded use of micrographics in teaching and in the home, but that these events would have to await improvements that would make microforms more suitable for continuous reading.130 We can only say that he is indeed a prophet without honor in his own house, for two years later much work still remains to be done in that regard.

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## Serials '75-Review and Trends

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#### Introduction

If ANY ONE WORD can be singled out as characterizing the impetus behind much of the work in serials on both the national and international levels for 1975, it is *standardization*. Standardization has had a significant effect on activities relating to automation, cataloging, and, to a lesser extent, acquisitions procedures. Its ultimate goal is increased efficiency, reduced processing costs, facilitation of information exchange, and a greater degree of cooperation at all levels between the various components of the information services community. Although this goal has continued to elude us throughout 1975, its pursuit has generated a number of significant publications, been the basis for several worthwhile conferences and institutes, and provoked much soul searching on the part of serial librarians everywhere.

## Bibliographic Control

Cataloging has been in the forefront of serials activity during the past year as the most cursory perusal of journal articles and conference themes will demonstrate. Nearly everyone seems to agree that the rules governing the cataloging of serials need to be revised, but just what form this revision should take has been the topic of much heated debate. The present concern with rules for entry and description of serials has been stimulated by emerging international standards for description and identification of serial publications. On the one hand there is the problem of satisfying local, national, and international requirements without sacrificing one for the other, while on the other hand there is the complicated task of accommodating developing national and international standards for physical description of serials in a catalog code whose basic concern is bibliographic description.<sup>1, 2</sup> Approaches to the resolution of these seemingly divergent aims have given rise to a number of proposals ranging from no separate rules for serials<sup>3</sup> to adoption of the British version of AACR rule 6B4 and finally to the suggestion of a separate set of rules for serials,<sup>5</sup> with as many variations in between. A concise summary of the problem and an outline of alternate proposals, along with underlying theories and arguments, have been presented by Simonton.6 At the root of the differences among the various proposals is the concept of authorship and how it should be applied to serials and the related question of what constitutes a title and, therefore, a title change. The former is a theoretical problem concerning rules of entry; the latter is a practical question of definition. While rules of entry for serials may be handled differently by various national codes without any serious adverse effects, it is imperative in the face of the pressures of international cooperation that the elements of description contained in each code conform to an internationally accepted standard. The universal character of the International Standard Serials Number (ISSN) and its potential for serving as a link in bibliographic exchange make it essential that whatever rules of entry are adopted by a particular national code, the bibliographic unit created be congruous with the unit resulting from Guidelines for ISDS.7

Of particular interest to serials catalogers is the vote of the Resources and Technical Services Division Catalog Code Revision Committee (CCRC) at the 1975 ALA Annual Conference to request the editors of the revised Anglo-American Cataloging Rules (AACR) to implement a rule specifying the entry of all serials under title, and the committee's subsequent adoption at the 1976 Midwinter Meeting of a recommendation for a concept of corporate authorship which would permit the limited entry of serials under corporate author. Opportunity for discussion of this and other recommendations concerning the cataloging of serials is being provided by the newly formed RTSD Serials Section Ad Hoc AACR Revision Study Committee chaired by Judith Cannan, Cornell University Libraries. The committee's charge instructs it, among other things, to encourage input from serials librarians and to present this information to CCRC. At the annual and midwinter meetings, this committee provides a forum for librarians concerned with developments in serial cataloging to air their views.

No discussion of serials cataloging for 1975 would be complete without mention of ISBD(S): International Standard Bibliographic Description for Serials. ISBD(S) has now had a year in which to be examined, tested, and evaluated. CCRC, the Canadian Committee on Cataloguing, and the Library of Congress (LC) examined the recommended 1974 version and, in preparation for the October 1975 meeting to review the 1974 draft, prepared the "North American Response." The North American position was put forth at this meeting and, as a result, some significant changes in ISBD(S) have been adopted by the IFLA committee. Among these are the recommendation that ISBD(S) apply the concept of "title proper" and "statement of responsibility" found in ISBD(M): International Standard Bibliographic Description for Monographic Publications to serials and that a generic term be permitted as title proper, that area 1 of ISBD(S) be recast so that it clearly deals only with description and does not prescribe entry, and that a medium spe-

cific area be established for elements of the description peculiar to a certain type of material and thus not common to all ISBDs.

The interrelationship of all these activities clearly represents a major step in international cooperation in serials in the direction of universal bibliographic control.

### Automation

Throughout 1975 the CONSER (CONversion of SERials) project has occupied the national spotlight in the area of serials automation. On 8 January the Council on Library Resources and the Ohio College Library Center (OCLC) announced the signing of an agreement providing for the use of OCLC's computer network as the vehicle through which the cooperative effort to convert approximately 200,000 to 300,000 serial records to machine-readable format will be carried out.8 By November of 1975 the base file, which consists of some 80,000 records contained in the Minnesota Union List of Serials and the composite records from the Library of Congress MARC serials files, had been loaded. LC is now in the process of authenticating records input and upgraded by participants. Although only a small number of research libraries are presently participating in CONSER, the data is available to library systems using OCLC facilities and LC will make all the records it has input, updated, or to which it has attached its location or relocation symbols available to the larger library community.9 Of particular interest is the stated commitment of the Library of Congress to integrate the CONSER project with the library's national bibliographic service. The Council on Library Resources has recently announced the awarding of a grant to LC to support the systems design and programming required for such a merger. 10 The target date for assuming full responsibility for the management and operation of CONSER is November 1977. Emerging international standards in the areas of cataloging, description, and identification of serials have influenced the decisions made concerning the bibliographic conventions to be used in building the file.11 In the initial stages of the project, all participants will concentrate on current imprints. Answers to many of the factual questions raised concerning CONSER and its goals have been provided in a number of recent articles. 12-14

Developments in areas other than file building have been taking place at the Ohio College Library Center. Subject search capability is being worked on and should be available on a pilot basis in the near future. The OCLC Serials Control Subsystem is operational although the production of catalog cards is not anticipated before this summer. In addition to providing cataloging and searching capabilities, the subsystem provides components for check-in, claiming, and binding control operations. The Library Systems Division has recently begun training libraries in the use of the check-in component. This component should be available to OCLC users as soon as the new dual computer system has been stabilized. As yet there is no definite schedule for the implementa-

tion of the claiming and binding components.

Two in-house serials control systems already operational which deserve mention here are the University of California at Berkeley's Computerized Serial Processing System<sup>17</sup> and the Northwestern University Library Automated Serial Check-in System. 18 The former is a batch-oriented processing system which includes a complete accounting system for serial expenditures and provides for more flexible and complete bibliographic access to the library's serial holdings. The serial file contains MARC-structured records for over 150,000 titles. The serial check-in system is still a manual operation, but the records used for this aspect of serials control are by-products of the total system. The latter system is an on-line operation which is a subsystem of Northwestern's integrated technical processing system. In addition to check-in, the subsystem provides for on-demand and automatic claims. The data base contains some 38,600 serial records consisting of MARC-based and local fields. The online system has been operational for over a year. A third in-house system which bears watching in 1976 is the University of Massachusetts/Amherst Serials Control System. At present this is a batch system which provides for binding and increased bibliographic access through a number of ondemand products. Modules providing for on-line check-in, automatic claiming, and binding, as well as accounting and management for serial expenditures, are scheduled for implementation in late 1976.

In the area of abstracting and indexing services, the Literature and Resources Department of the Biosciences Information Service (BIOSIS) has undertaken the building of a serials data file which will contain complete data concerning the serials publications from which the BIOSIS data base is built.<sup>19</sup> Eventually the system is expected to incorporate components for on-line check-in and automatic claiming capabilities. The compatability of the BIOSIS serial data system with the similar files of Chemical Abstracts and Engineering Index provides the potential for a network among the major services.

## Economics and Acquisitions Trends

The costs associated with the acquisition and processing of serials continued their rapid increase during the past year. According to the annual survey in *Library Journal*, the average cost of domestic serials has increased 13 percent over 1974, and the cost of American serial services has increased 8 percent, bringing the average subscription price to \$19.94 and the average cost of a serial service to \$118.03.20 Both figures represent a marked increase in the rate of inflation over last year. Clasquin has updated his three-year comparative study with 1975 figures; and, although his figures are somewhat higher (the average of all titles furnished by Faxon is about \$37.0022), most disciplines show a higher rate of increase for 1975 over the previous year. Clasquin has added several new sets of figures to his comparative study showing the average price paid by institutions in several selected classifications. These figures are based upon the total number of titles purchased by those clients in each

classification for 1974–75, and title and rate data for 1972–73 through 1974–75. Clasquin also provides figures for the average prices of specific lists of titles in various subject groupings at a number of institutions and the final average price for all periodicals at these and other institutions, showing the total number of titles used in the price study and the order plan used.<sup>23</sup> Both the subject category average prices and the final average price vary greatly from library to library. According to Clasquin's figures, nearly 40 percent of the funds allocated for serials in college and university libraries are needed to purchase only 5 percent of the collection. The rapid increase in serials costs and the range of differences between sets of figures serve to underscore the fact that while broad comparative studies can provide a guide for formulating a bud-

get, there is no substitute for zero budgeting.

The rising costs associated with the acquisition and processing of serials, together with tightening library budgets cannot help but affect the selection and acquisition practices of all classes of libraries. During 1975 many libraries were forced to cut their subscriptions and standing orders to accommodate a trimmed acquisitions budget. The rigor necessary for the intelligent implementation of such a review project has not been without its benefits. Many libraries are for the first time giving careful scrutiny to their total serials control systems and investigating methods for more critical and efficient application of selection criteria and acquisitions practices. Serious examination of the order-direct vs. the agencyservice approach, especially in relation to the agency's ancillary services, is changing the patterns of acquisitions methods and sources. Of particular note in the examination of acquisitions trends is Dessauer's report of the findings of a study and projection of library materials expenditures covering 1972-73 through 1978-79.24 Corroborating the price studies cited above, Dessauer's figures show an increasing inflationary trend over the past three years. However, serials librarians may take heart from an examination of projections for the immediate future which indicates a steady decline in the rate of inflation beginning in 1975-76 and the prediction that an encouraging general recovery from the recession will become evident by 1978.

In answer to rising costs and shrinking budgets, many libraries are showing an increasing interest in participating in cooperative programs. Such programs range from resource sharing through union lists to various degrees of cooperative acquisition of materials. For example, the University of California at Berkeley and Stanford University are now exchanging information about the purchase of each serial. In a similar program, members of the Boston Library Consortium are reporting all purchases over \$300.00. In a somewhat more active approach to the possibility of cooperative acquisitions, the members of the Hampshire Inter-Library Center (HILC) in Amherst, Massachusetts, are assigning priority and subject codes to all active titles and adding this information to the University of Massachusetts Serial Data Base, which is used to produce their union list of serials. This broad cooperative trend among

libraries is creating a strong impetus toward networking and sharing of data bases, resulting in increased pressure for standardization in local

record keeping.

Another effect of the inflationary climate is the purchase of microforms as replacements for hard copy materials. Because of space considerations, binding, and associated handling costs, periodicals and newspapers are likely candidates for such programs. However, given the existing state of the art in microform technology, replacement of bound volumes with microforms is not the cure-all for space and financial problems. Lynden discusses the pros and cons of conversion to microform and examines in some detail the various questions to be considered before undertaking such a course of action.<sup>26</sup> While the ALA handbook, The Evaluation of Micropublications, recommends that microfilm be used for periodicals and newspapers and that microfiche or microopaques be used for complete bibliographic units,<sup>27</sup> librarians and publishers continue to discuss the microfilm vs. the microfiche solution for serial publications. Gray has observed that improvements in the technology of copying are influencing a trend toward microfiche for serials as evidenced by two experiments in progress in 1975.28 One is a revival of the Pergamon Press experiment of 1972, which made available a simultaneous microfiche edition of a number of journals; the other is an experiment being conducted by the American Chemical Society (ACS) in which current issues of microfiche are supplied free to their microfilm standing-order customers. Moreover, in 1975, anyone could subscribe to the microfiche editions of the ACS publications at the same price as the paper edition. In 1976 when Pergamon Press resumes its project, it plans to offer subscribers the choice of ordering the microfiche edition of Tetrahedron Letters together with or in place of the hard copy. In addition to the simultaneous publication of microform and hard copy editions, there is some indication that spiraling publication costs are encouraging publishers to consider microforms as a substitute for hard copy. For example, the University of Chicago publication Journal of Modern History has recently announced that beginning in March 1976, it will issue only summaries in hard copy for some of its articles and provide the full text in a microform or xerographic reproduction at additional cost.29

## Copyright

On February 25 the Williams & Wilkins case was concluded with the Supreme Court announcement to uphold the 1973 decision of the U.S. Court of Claims against Williams & Wilkins. The court was equally divided, with Justice Blackmun abstaining. The court took no official position and wrote no opinion, thus leaving the broader issues involved in library photocopying to be resolved through legislation and negotiation.

Hearings on H.R. 2223, the proposed revision of the 1909 copyright law, began in May and the Senate version of the general copyright revision bill (S. 22) was reported from the Judiciary Committee in Novem-

ber. Authors and publishers support the House bill and the companion Senate bill, which extends the term of copyright and provides a statutory definition of "fair use" of copyrighted works. Librarians have expressed concern that section 108 (g) 2 of the proposed legislation places unwarranted limits on "fair use" as set forth in section 107 of the Senate bill and provides insufficient protection against possible suit for libraries making single copies of copyrighted materials for teaching, research, and interlibrary loan transactions. The Senate committee report stated that each case concerning "fair use" must be decided on its own merits and all Congress can and should do is set "normal and reasonable limits." S. 22 includes among these limits a ban on systematic reproduction of copyrighted materials. According to the definition in section 108 (g) 2, a library is guilty of systematic reproduction when it makes copies of copyrighted materials available to other libraries or groups of libraries, under formal or informal arrangements with the intention of allowing the reproducing library to serve as the source for the material.<sup>30</sup> The obstacles that such legislation would put in the way of interlibrary cooperation are obvious. It seems ironic that while Congress has responded to the need for resource sharing among libraries by providing funds to encourage the development of library networks, pending copyright legislation would put an end to such cooperation.

# Serials Literature and Bibliographies

In addition to numerous journal articles of high quality covering all aspects of serials activity, several publications of importance devoted

completely to serials have appeared in 1975.

Of potential interest both to students and practicing serial librarians is Guide to Magazine and Serial Agents by Katz and Gellatly.<sup>81</sup> The guide is an outgrowth of Katz' study done in 1973 for the U.S. National Libraries Task Force on Cooperative Activities, which described the agency-library relationship at the Library of Congress, the National Library of Medicine, and the National Agricultural Library. Briefly, the intent of the guide is to provide an understanding of the agent-library relationship which can be used as the basis for agent selection. The guide provides an overview of serials and their organization in the library, a description of subscription agents and their activities, and the principles involved in the management of a serials collection. Over a third of the text is devoted to directories for analyzing and locating serial agents and services, including ratings of agency performance.

The July issue of the Drexel Library Quarterly, entitled "Current Issues in Serials," represents an attempt to identify and define current issues affecting the practicing serials librarian. This issue contains a number of articles covering bibliographic control, automation, budgeting, and education. The authors concentrate on recent developments and

their effects on the day-to-day activities of serials librarians.

Not only OCLC users, but all serials librarians concerned with automated serials control will be interested in examining OCLC's Serials

Control Subsystem: Users Manual.<sup>32</sup> The introduction provides a brief outline of OCLC's serials control subsystem and its various components. The text itself is devoted to a detailed description of the format and use of the check-in component.

Several noteworthy bibliographies filling gaps in periodical indexing or cumulating and updating earlier services have appeared in 1975. One such index is the *New Film Index*, in which 12,000 annotated entries covering articles from over seventy periodicals are classified under 238 categories and are also accessible through an author index.<sup>33</sup> The index is a useful guide for film research, providing coverage for a large amount of heretofore relatively inaccessible material.

Access; The Supplementary Index to Periodicals, edited by John Gorden and Ned Kehude, provides access to another type of hard-to-get-at material.<sup>34</sup> This index, published three times yearly, covers 130 periodicals which are not presently covered in the major indexing services. The majority of titles covered are of the newsstand variety or city and regional periodicals, and the index is thus more useful for public than academic libraries.

The Carrollton Press has recently announced the publication of the Combined Retrospective Index Sets (CRIS) from the Network Exchange of Urban Services (NEXUS) data base covering history, political science, and sociology. The indexes give coverage dating back to 1838 for complete runs of 531 scholarly journals. Access is provided for over 350,000 articles through a keyword subject index and separate author index. These combined cumulative indexes should represent a great time saving for anyone making an exhaustive retrospective search on the subjects covered.

# Institutes and Workshops

So much is happening so fast in the world of serials that information is out of date before it reaches the presses. The need for workshops and institutes to bring people up to date on recent developments and to serve as a forum for the discussion of serial concerns is obvious. The RTSD Serials Section Regional Serials Workshop Committee, established as an ad hoc committee at the 1974 ALA Annual Conference, became a standing committee at the 1975 Midwinter Meeting. Its function is to encourage and coordinate serials workshops at the regional level and to provide quality control for such endeavors. The committee is presently working on a manual which will be published by ALA as a guide for organizing serials workshops.

Under the guidance of the committee, three regional serials workshops covering a wide range of topics were held in 1975. On the west coast a workshop focusing on the pros and cons of title main entry for serials featuring Joseph Howard as one of the guest speakers drew participants from three western states to the University of California at Riverside in May. In June, Texas A. & M. served as host for a workshop exploring the local implications of national trends in serials at which

Paul Fasana spoke. And finally participants from ten states and the District of Columbia attended a workshop dealing with local considerations in serials automation and current developments in national projects held at the Graduate School of the City University of New York in October. In addition to these regional workshops, the Information Science and Automation Division of ALA sponsored an institute on national and international considerations in automated serial control held in San Francisco in November.

Serial concerns have not only provided the basis for institutes and workshops dealing with serials alone, but have also played an important role in conferences on other topics. At the 1975 ALA Annual Conference, the RTSD Cataloging and Classification Section sponsored an institute on international standards as related to universal bibliographic control in which standardization of serial cataloging was discussed; and an ISAD/RASD/RTSD CCS cosponsored institute on the nature and prospects of the catalog held in New York in October provided coverage of problems related to the bibliographic control of serials.

# Education for Serial Librarians

The increasing national attention given to serials work over the last few years has occasioned a growing interest in the professional preparation offered by library schools to students wishing to pursue a library career in serials, as well as in continuing education for practicing serial librarians. A survey of ALA-accredited library schools conducted in 1974 by Keenan and Weber pointed out that only eight graduate library schools offer a course in serials.35 Results of a survey of serials librarians conducted by Weber showed manual handling as the specific area of serials work most inadequately covered by library school courses, with automation running a close second.36 This is particularly disturbing because the successful automation of serial functions requires not only a knowledge of automated techniques, but also, and perhaps more importantly, a thorough understanding of the manual procedures to be automated. Considering the present fervor of work in serial automation, it is no surprise that Weber's survey showed automation as the winner hands down for the areas in which continuing education is desired. As a result of her survey, Weber made several recommendations, including the preparation of a proposed syllabus for a serials course, thus bringing some degree of standardization to education for serial librarians.

A natural outgrowth of the interest in serials education has been the recent formation of the Ad Hoc Committee on Library Education (Serials) chaired by Hal Hall of Texas A. & M. University. Essentially the committee has verified Weber's findings and should complete its work during 1976.87\* Another committee which has expressed interest

<sup>\*</sup> The committee welcomes ideas and comments from the profession concerning training for serials librarians. Letters should be addressed to Hal Hall, Serials Record, Texas A. & M. University, College Station, TX 77843.

in this area of library education is the ALA RTSD/LED Committee on Education for Technical Services.

# Summary

1975 has witnessed a marked increase in activities related to bibliographic control and automation as evidenced by the large proportion of meetings and serial literature devoted to these topics. The emergence of national and international standards has affected developments in these areas at all levels and is likely to play an even larger role in the years ahead. Unless the economic climate changes drastically, we shall continue to see a growing interest in library cooperation. Networking as a means for increasing library cooperation has the potential for occupying a central position in 1976.

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# Academic Library Cooperation: A Selective Annotated Bibliography

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The annotated bibliography of fifty-five items covers empirical literature on academic library cooperation, emphasizing the literature of the 1970s of the United States.

In THE 1960s as libraries began to realize that there are limits to growth, to budgets, and to self-sufficiency, the idea of cooperative programs became more and more attractive. Concomitant with this realization was a corresponding growth in the literature on library cooperation. While there is no shortage of material on library cooperation in general, there is a limited amount of empirically based literature. Too many writings praise and advocate cooperation and predict benefits that are presumed to follow such worthwhile activity without any evidence of needs to be met, costs, or impacts. Many articles are based only on common-sense assumptions. And, while common sense in library practice is certainly not to be disparaged, sometimes research does not bear out these assumptions. There are many theoretical and descriptive articles but few that deal with specifics, particularly on the problems and advantages of actual programs.

This bibliography covers empirical literature on academic library cooperation, with cooperation defined as a joint program of two or more libraries, either within the same administrative unit or in separate units. Thus, programs involving departmental libraries within one university system are included. The bibliography is addressed primarily to the practitioner in library cooperation. It is to be hoped that it will supply to the practitioner some of the ideas and information that should precede the development and implementation of cooperative programs, for example, possible research design and methodology for the collection of data, comparative costs of differing programs, identification of needs for particular services, pros and cons of programs that have been tried and

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evaluated, methods of evaluation, and alternative program strategies. As Forbis found in his survey of five consortia (see abstract below), there is often a large gap between the reality of cooperative activity and the assumed ideal. Much of this can be attributed to the lack of proper

planning, lack of information, and lack of realistic objectives.

The bibliography, prepared when the author was head of the Social Science Reference Department of the University of Hawaii Libraries, includes books, articles, and research reports, primarily from the 1970s with some from the 1960s. ERIC documents are identified by ED numbers. Since technical capabilities have advanced so rapidly, only the more recent reports are included; for example, some of the older reports on the Ohio College Library Center (OCLC) are not included. In preparing the bibliography, over 150 items were read. The ones included represent a personal selection of those that were found to be the most useful in terms of characteristics such as the inclusion of data, questionnaire forms, descriptions of methodology, statistical analysis, specific plans of action, and problems encountered with actual programs. Excluded are literature on countries other than the U.S., general descriptive articles, news notes, directories, and bibliographies.

It is encouraging to note that an increasing number of research studies are being done and that librarians are beginning to realize that they need to have prior information on factors such as collection overlap, processing costs, interlibrary loan costs, and impacts before embarking on programs that may be intuitively appealing but that may not be cost effective and may create more problems than they solve in the long run. It is hoped that this bibliography will be helpful to librarians in designing and planning their research and cooperative efforts.

Atkinson, Hugh C. "The Ohio State On-Line Circulation System," in Clinic on Library Applications of Data Processing, p.22-28. Champaign, Ill.: Graduate School of Library Studies, University of Illinois, 1972.

Describes the on-line circulation system which serves a network of twenty-three departmental libraries and the main library. The system has an author-title search capability, provides full inventory control rather than a record of books out only, and remote access and display of holdings of all the libraries. In response to patron request, the system can search by author, title, or call number and can respond whether it is owned, in which library it is housed, and if it is charged out. Spillover benefits, such as reduction in the amount of duplication and reference use of the computer are summarized. Some costs and hardware requirements are given.

Balliot, Robert L. A Program for Cooperative Acquisition and Use of Library Materials of Seven New England Liberal Arts Colleges (CONVAL) Based on an Analysis of Their Collections. Cullowhee, N.C.: Western Carolina College, 1970. 82p. ED 047711.

The CONVAL consortium consists of Amherst, Bowdoin, Dartmouth, Smith, Trinity, Wesleyan, and Williams. Its aim is to make better use of resources given rising costs and the increasing amount of material needed. The

first phase of cooperative efforts was to conduct a study of the collections. This included: (1) a quantitative volume count by subject to delineate subject strength; (2) a qualitative evaluation of collections by subject to denote unique materials; (3) identification of special subjects not adequately represented in the consortium; (4) information on acquisition policies; and (5) information on retention and discard policies. The report describes the methodology used, data such as the amounts expended by each college for various disciplines and departments, number of subscriptions by department, rankings of libraries by largest subjects held, evaluation of resources for degree programs and research. The study concludes that potential exists for cooperation in the area of collection development.

Blasingame, Ralph Upshaw. Feasibility of Gooperation for Exchange of Resources among Academic and Special Libraries in Pennsylvania. (Pennsylvania State Library Monograph no.5) University Park, Pa.: Institute of Public Administration, Pennsylvania State University, 1967. 27p.

Argues that the state's colleges and smaller universities vary widely in their ability to support programs of education and require leadership and cooperative programs if they are to meet the needs of the future. A questionnaire on the nature and activities of libraries was sent to 107 academic institutions having less than 80,000 volumes. A separate questionnaire on ILL was sent to 23 colleges and universities with holdings over 80,000 volumes, and interviews were conducted in 8 institutions. Responses to these questionnaires are presented. He finds that there already exists a voluntary system which can be formalized on the basis of mutually agreeable goals and, in the future, libraries will have to pool resources through the development of a formal system of information transfer.

Bowden, Virginia M., and Miller, Ruby. "MARCIVE: A Cooperative Automated Library System," Journal of Library Automation 7:183-200 (Sept. 1974).

MARCIVE is a batch, disc-oriented computer system serving five academic libraries in Texas. It uses both local cataloging and MARC tapes to produce catalog cards, book catalogs, selective bibliographies, and acquisition lists. Input is through keypunched cards. Only Trinity University Library inputs via an on-line terminal. Each of the users maintains a separate data base of its holdings. MARCIVE format structures are compared with MARC format and MARCIVE programs are described. Benefits of the new system are compared with the former manual system and the OCLC system. The authors' figures show OCLC to be more costly.

Center for Research Libraries. "The Center for Research Libraries," in Michael M. Reynolds, ed., Reader in Library Cooperation, p.199-210. Washington, D.C.: Microcard Editions, 1972.

Provides a brief history of the center and summarizes the principal conclusions and recommendations of a survey on the present operations and future activities of the center which was conducted by Dr. Stephen McCarthy, director of Libraries at Cornell, and Dr. Raynard Swank, then dean of the School of Librarianship at U.C., Berkeley. The survey covers the scope of membership in the center, its governance, funding sources, and programs and operations. Among the recommendations, the survey suggests that the center stress the cooperative acquisition program over the deposit program in the center's future activities.

Conference on Interlibrary Communications and Information Networks; ed. by Joseph Becker. Chicago: American Library Assn., 1970. 347p.

The purpose of the conference was to explore the implications of establishing a network of libraries and information centers. The underlying belief was that such a network would provide a national information apparatus of great value. Papers from the conference are grouped into five major areas: network needs and development, network services, network technology, network organization, and network planning. Participants were from many interested professional groups and covered all types of libraries and information centers. Articles are primarily theoretical and descriptive and focus on functional types of cooperation rather than by type of library, i.e., state, public, academic. Includes an extensive bibliography.

Cooper, William S.; Thompson, Donald T.; and Weeks, Kenneth R. The Duplication of Monograph Holdings in the University of California Library System. Berkeley, Calif.: Institute of Library Research, University of California, 1974. 38p. ED 097883.

In order to determine if cooperative acquisition programs are of value for avoiding duplication, it is useful to know the extent of existing duplication and the usage of the overlapped material. The extent of duplication between Berkeley and U.C. Davis, San Francisco, and Santa Cruz, the northern cluster of the U.C. system, is investigated; also the extent of duplication between UCLA and U.C. Santa Barbara, San Diego, Riverside, and Irvine for the southern U.C. cluster. Describes the methodology used, sampling and search procedures, findings concerning the extent of duplication and usage of duplicated materials. Tables present statistical data on findings. Unfortunately, no analysis or interpretations are made of the data nor are the implications discussed.

Cuadra, Carlos A. Final Report on Phase II; Study of Academic Library Consortia. Santa Monica, Calif.: Systems Development Corp., 1971. 53p. ED 057826.

Reports on Phase II of a study sponsored by the U.S. Office of Education that produced the Guidelines for the Development of Academic Library Consortia. Phase II was a case study of fifteen selected consortia and deals with the development of an unstructured interview guide, methodology used, and the findings and analysis of consortia in terms of their purposes, organization and staffing, cooperative functions, support, and patterns of development. The study found that interrelationships among consortia are extremely complex and in a constant state of flux. There is a lack of coordination among consortia. Activities most frequently engaged in include the production of union lists and the sharing of staff and materials. Major sources of funds are dues and service fees. Significantly, 548 of the consortia have no formal budget and do not know how much their cooperative activities are costing. Also, very little evaluation is made of cooperative work. The most frequently used evaluative technique is informal feedback.

Cuadra, Carlos A., and Patrick, Ruth J. "Survey of Academic Library Consortia in the U.S.," College & Research Libraries 33:271-83 (July 1972).

Summary of the study on consortia carried out by the Systems Development Corp. (See also Cuadra, above; Delanoy and Patrick entries.) Describes the

two phases of the study: the identification of existing consortia and the indepth case studies. They find that cooperative projects typically involve low cost and low levels of compromise among member libraries and they provide relatively immediate benefits, e.g., reciprocal borrowing. Use of computers is quite limited. Article also touches on management and staff, the nature of cooperative relationships, and evaluation of consortium operations.

Delanoy, Diana D. Phase I Final Report, on a Study of Academic Library Consortia. Santa Monica, Calif.: Systems Development Corp., 1971. 27p. ED 057825.

Describes the development of two questionnaire surveys aimed at identifying and listing all library consortia in higher education and their participating institutions. Presents the planning for the survey, the development of survey instruments, pretesting and the analysis of responses. Activities of consortia are summarized. Resulting project is the *Directory of Academic Library Consortia*.

Dougherty, Richard M., and Maier, Joan J. Centralized Processing for Academic Libraries; the Final Report (Phase III, Jan. 1-June 30, 1969) of the Colorado Academic Libraries Book Processing Center, the First Six Months of Operation. Metuchen, N.J.: Scarecrow Pr., 1971. 254p.

Excellent study on an experiment in cooperative centralized processing by six libraries to test Phase I and II findings (see Leonard entry). Focus is on the pragmatics of centralized processing. Examines performance and costs throughout the acquisition/cataloging cycle, including analysis of jobber performance, time lags, analysis of materials cataloged, customer acceptance of products, and quality control. Investigates and evaluates techniques and procedures at the center as well as its organizational and administrative aspects, communication among users, compatibility among library systems, and the interface between users and the central operation. Presents the implications of the present experiment for other systems considering centralized processing and conclusions and recommendation of the study. Much useful information is contained in the appendixes, such as draft specifications for participating libraries, work-load and cost studies, book buying patterns, comparative jobber discounts.

Epstein, A. H.; Ferguson, Douglas; and Montagne, Eleanor. "An On-line Network—Cooperative Planning with Several Libraries," *American Society for Information Science Proceedings* 8:227-31 (1971).

In order to explore the feasibility of participating in Stanford's BALLOTS system, a team of senior librarians from five colleges and universities met at Stanford for six hours a week for thirteen weeks. Objectives were for this group to understand the workings of BALLOTS, develop a methodology to measure costs, determine ways in which BALLOTS-MARC could be of greater use, and to prepare a report to enable management of each of the participating libraries to decide whether or not to join in a BALLOTS network. The team divided technical services into twelve major functions, flow-charted these, and calculated labor and equipment costs. Manual and automated costs were estimated for the various functions. The feasibility study presents the findings of the cost analysis, advantages and disadvantages, and the impact of the BALLOTS system. The authors believe that this approach to planning is

more productive than the use of a consultant as the work was completed in a relatively short time with no adverse staff reactions, the library staff was allowed to input at the earliest stages, and the report had added credibility to management of the respective libraries since it was produced by their own staff.

Evans, G. Edward. "The California State Department of Finance Report—Analysis of Library Cooperation; A Systems Approach to Interinstitutional Resource Utilization," California Librarian 34:4-15 (April 1973).

A critique and analysis of the finance department's report evaluating the desirability and feasibility of the cooperative model set forth therein. The assumptions underlying the model are briefly discussed, e.g., there is a fairly high rate of duplication of low and non-used items in the higher education library system. He finds that the time schedules are unrealistic; the study methods, i.e., the use of cost effectiveness as the single criterion of evaluation and the failure to examine the total system, inconsistent and illogical. The question of how the model would operate and what its impacts would be are also unexamined in the finance report. What would be its effect on ILL, staffing, high-use items, costs for book catalogs? He lists nine additional studies that should be done before a workable model can be developed.

Fasana, Paul J., and Veaner, Allen, eds. Collaborative Library Systems Development. Cambridge, Mass.: MIT Press, 1971. 241p.

A collection of papers from the second conference on "Collaborative Library Systems Development (CLSD)." (See also Veaner entry.) Contains detailed reports from Charles Payne on the Chicago experience, Paul Fasana on Columbia, and Allen Veaner on the Stanford experience. System design features, phasing and scheduling, products, etc., are depicted. Various approaches to automation are discussed. The independent development approach is illustrated by Dave Weber of Stanford, the NELINET approach by John MacDonald, FAUL by David Kaser, and the commercial service approach by Carlos Cuadra. Other papers discuss the Library of Congress and directions for the future.

Five Associated University Libraries. Joint Serials Control Project for the Libraries of Cornell University, University of Rochester, and the State University of New York at Buffalo. New York: FAUL, 1971. 141p. ED 051827.

Reports on Phase I of a project to design and implement a serials control system for a total of thirty-eight libraries on three campuses. Twelve of these libraries have their own processing units. Phase I objectives are to identify feasible alternative systems and supply a basis for contract libraries to evaluate and select the most workable system for implementation. The study presents a literature review on the pros and cons, problems, and trends. Considers the implications of national and state developments, e.g., National Serials Data Program, serials control at U.C. San Diego. Processing functions at each of the contract libraries are analyzed to identify functions and variations which have to be accommodated in the design of a system. Analyzes cost requirements for the manual system and various automated configurations and their relative capabilities. Appendixes contain a great deal of information on manpower and other costs for development, implementation, operation, and maintenance of different systems for a number of functions, such as check-in,

claiming, and holdings update, and summaries of characteristics of serials at contract libraries, e.g., costs, files, growth rates, time and cost analysis.

Five Associated University Libraries. FAUL Access Committee. Interlibrary Access: A Two Year Report of the FAUL Access Committee, 1968-1970. New York: FAUL, 1970. 39p. ED 045090.

Primary purpose of the committee is to investigate, develop, and recommend policies and procedures to improve access to resources and facilities. Reports on the committee's activities in the areas of in-person borrowing privileges, compatible circulation control systems, intra-FAUL loan studies, experimental document delivery system, reference services study, a directory of language specialists, a survey of library publications, a user busing proposal, and a staff visitation program.

Forbis, Yates M. The Role of College Libraries in the Planning, Development, and Operation of Educational Programs in Multi-purpose Higher Education Consortia. Washington, D.C.: Council on Library Resources, 1973. 5p. ED 079981.

Fourteen colleges participating in five consortia were visited in order to determine how well the consortia were functioning. A large gap was found to exist between the ideal and the reality, e.g., there were rarely well defined guidelines, very little real cooperation, and autonomy was jealously guarded. On the other hand, libraries demonstrated a willingness to share and engage in joint programs. Standardization of procedures and policies has encouraged coordination in other academic areas, such as courses, and communication has improved.

Fussler, Herman H. Research Libraries and Technology, a Report to the Sloan Foundation. Chicago: University of Chicago Pr., 1973. 91p.

Focus is on the problems of the large, research-oriented academic library and the potential of technology to address these problems. Some of the major studies in this area are reviewed, and some current aspects are described, particularly library expenditures. Also discussed are bibliographical and library processing functions, shared resources, and computer applications. He believes that the scholarly library is rapidly approaching a state of crisis, that the gap between reader needs and the response capabilities of libraries is increasing and is likely to increase at a faster rate in the future. Effective long-range response will require a variety of basic changes in research library concepts and operations. These changes should be focused on: (1) the bibliographical apparatus through which pertinent literature is identified, (2) the accessibility of the literature sources and data base, and (3) library processing functions and operations.

Goldstein, Samuel, and others. Development of a Machine Form Union Catalog for the New England Library Network (NELINET). Wellesley, Mass.: New England Board of Higher Education, 1970. 220p. ED 043367.

A two-part study in which a preliminary survey is made of past, present, and "retrospective" union cataloging in New England, and machine capabilities are developed. The survey finds that in-depth studies of New England's union catalog needs are required since there is a total lack of data on factors such as use patterns, types of services to be offered, and the lack of specification of collective needs. Part two is a study of machine form union catalog-

ing; file design for present and projected needs; development of techniques and programs for collecting, storing, and updating library holdings data; and development of programs to produce a printed union catalog using LC numbers as identifying elements. Appendixes analyze changes made in LC copy by NELINET libraries, present statistical data on these changes, the design of a file organization that will serve as the base for a disc-oriented system, flow charts, and technical descriptions of programs.

Haas, Warren James. "Cooperative Library Service for Higher Education," in Michael M. Reynolds, ed., Reader in Library Cooperation, p.139-44. Washington, D.C.: Microcard Editions, 1972.

Focus is on library requirements of higher-education students. Considers cooperative action to be supplementary to individual library operations. Also, since no single cooperative program appears to be the answer, he suggests an on-going planning and administrative machinery to solve problems on a continuing basis. Describes the current status of students and higher education today and characteristics of student use of New York libraries. A questionnaire survey indicated that in addition to use of their respective college libraries, convenience is the most significant factor in the use of other libraries. The students already use New York's library resources as if a library system exists and their needs are both varied and complex.

Hammer, Donald P., and Sokoloski, James S. "The Massachusetts Central Library Processing Service," in *Clinic on Library Applications of Data Processing*, 1973, p.124-49. Champaign: Graduate School of Library Service, University of Illinois, 1973.

The service is an automated center providing a full spectrum of processing functions from selecting, ordering, cataloging to catalog cards, book catalogs, and financial statements. It serves some twenty-seven college libraries and the University of Massachusetts and is state funded for both books and processing. The basic selection aid is MARC tapes which are used to generate selection cards. Order information is available on demand through CRT terminals. Procedures, products, and system characteristics and capabilities are described. Results from a questionnaire survey show that the center has had a positive impact on library operations.

Harrar, Helen Joanne. "Cooperative Storage Warehouses," College & Research Libraries 25:37-43 (1964). Also in Michael M. Reynolds, ed., Reader in Library Cooperation, p.211-16. Washington, D.C.: Microcard Editions, 1972.

Basic assumptions underlying the establishment of cooperative storage failities are: (1) they provide more economical storage than can be achieved if each member housed the same materials within its own buildings, (2) materials stored are little used and therefore have low service costs, (3) they reduce costs, (4) delays in accessibility are less important than cost savings, and (5) they increase the resources available to cooperating libraries. Three cooperative storage programs are examined in terms of the above assumptions: the New England Deposit Library, the Mid-west Interlibrary Center, and the Hampshire Interlibrary Center. The author finds that there are no cost savings in cooperative storage, nor have the other assumed benefits materialized.

Kenney, Brigitte L. Survey of Interlibrary Communication Systems. Boston: Educom, 1967. 74p.

A review of interlibrary communications equipment and techniques. Covers past surveys of communication systems and the following modes: mail, telephone, teletype and facsimile, television, radio, computers, and the network concept and the future. Somewhat outdated but still useful for overview. Provides some cost figures and references following each of the modes.

Kilgour, Frederick G. The Development of a Computerized Regional Library System. Final Report. Columbus, Ohio: Ohio College Library Center, 1973. 59p. ED 080117.

Report covers the period from January 1970 to December 1972. During this time, an on-line union catalog and shared cataloging system was implemented. System capabilities include display of union catalog location listings, on-line cataloging, and editing. Members have agreed to use the *Standards for Input Cataloging*. Describes research performed in the course of developing the system. By December 1972, design of an on-line serials control system was also completed. OCLC has been extended to a number of other regions to test its transferability. Manuals have been issued, and regional clinics and tutorials have been held to instruct librarians in the use of the on-line system. Some costs for operations are included.

Kilgour, Frederick G., and others. "The Shared Cataloging System of the Ohio College Library Center," Journal of Library Automation 5:157-83 (Sept. 1972).

Describes in detail the off-line card production system and the on-line shared cataloging system. The OCLC goal is to facilitate cooperative cataloging without imposing uniformity on the cooperators. The system is designed for flexibility. Objectives of the shared cataloging system are to provide cards to meet varying requirements of members, an on-line union catalog, and a communication system for ILL. System design and equipment, file organization, indexes, retrieval techniques, and cataloging procedures are discussed. The author assesses that the on-line system will be efficient, easy to use, reliable, and cost beneficial.

Leonard, Lawrence E.; Maier, Joan M.; and Dougherty, Richard M. Centralized Book Processing; A Feasibility Study Based on Colorado Academic Libraries. Metuchen, N.J.: Scarecrow, 1969. 401p.

Investigates the feasibility of establishing a book processing center for two state universities and seven state-supported colleges in Colorado. To develop a composite of the requirements and characteristics of the nine institutions, a detailed study of existing operations and a cost analysis of technical service operations were made. A model for a proposed center is presented along with mathematical simulations of proposed operations. Also included is a user questionnaire survey to measure faculty attitudes towards existing services for guidance in establishing network priorities. Study concludes that centralized processing would be both desirable and feasible. Appendixes include much useful data on mean times and unit costs of various activities, the questionnaires, and tabulation of responses.

Little, Arthur D. A Plan for a Library Processing Center for the State University of New York. Albany, N.Y.: Center for Educational Communications, State University of New York, 1967. 132p. ED 082759.

A plan for an automated centralized processing center to serve the sixty

libraries of the SUNY system. An important by-product of such a center would be a machine-readable union catalog for SUNY statewide holdings. Describes in detail Phase I or the implementation of the center, its building requirements, location, staff, tasks, and budget. Phase II would be the establishment of services, remote order transmission, order processing, cataloging, receiving, shipping, accounting. Phase III would expand to a full-service system for all participating libraries. Appendixes include a survey of libraries, descriptions of files and file organization, program flow charts, computer hardware, and network terminal equipment.

McGrath, William E., and Dyson, Sam. "Regional Interlibrary Loan: An Old Idea, a New Tool and a New Dimension," RQ 13:293-98 (Summer 1974).

The Louisiana Numerical Register (LNR) is a computer-generated union catalog of books containing only the LC number and location symbols for some twenty-one libraries in Louisiana, of which seventeen are academic. Success rate for searches in LNR runs at 50 percent. Comparison of ILL costs with costs of filling requests by purchase shows ILL costs to be somewhat lower. Authors believe their studies show very little collection overlap so that resources have been greatly extended by LNR. Also found that large libraries do not own many of the titles owned by small libraries, thus large libraries are benefiting by finding as many needed titles in small libraries as vice versa.

McGrath, William E., and Simon, Donald J. LNR: Numerical Register of Books in Louisiana Libraries; Basic Documents. Baton Rouge, La.: Louisiana Library Association, 1972. 55p. and 67p. ED 070470 and ED 070471.

The first collection, ED 070470, contains: (1) a proposal to the Louisiana State Library for LSCA Title III funds to create a retrospective union catalog based on LC numbers, describes the utility of the proposal, criteria for selection of participants, methodology, and budget; (2) Phase II of the proposal describes data input, storage and retrieval, methodology, and budget; (3) a statistical summary of the LNR; the second edition contains over 1,100,000 volumes produced on computer output microfiche for an estimated total cost of \$30,000 (this section also appeared in Journal of Library Automation 5: 217-29, Dec. 72); (4) a model for predicting title multiplication or overlap using regression analysis. Illustrates the experimental procedure using summary statistics from fifteen academic libraries, one public library, and the State Library. Runs tests for linear relationships and finds that such a relationship can be assumed between the number of volumes and the number multiplicated. Basic document II, ED 070471, has "A least squares polynomial exponential model for the multiplication of books in 16 libraries." This is proposed as a more reliable model than the linear regression model as it gives a better fit to the data. Also includes a sample letter of agreement; instructions to participating libraries on how to keypunch data, and estimated times for keypunching and computer processing; and LNR source program listings and documentation with system flow charts and sample output.

Markuson, Barbara Evans. "The Systems Implications of Interlibrary Cooperation," PNLA Quarterly 33:4-13 (Winter 1969).

A concise exposition of the application of systems analysis to formalized methods of resource sharing. States that some prerequisites for success are unambiguous statements of goals and objectives, a strong central agency, tech-

nical feasibility, cost feasibility, access to needed equipment, and preliminary long-range planning. Some current developments (MARC) and problems are also assessed. Suggests that systems analysis provides the framework whereby elements can be studied and related to the whole and new service and administrative forms can be evaluated.

Miller, Ron. "Network Organization—A Case Study of the Five Associated University Libraries (FAUL)," in Conference on Interlibrary Communications and Information Networks, p.266-76. Chicago: American Library Assn., 1971.

Describes the history, organization, and current activities of FAUL, a consortium consisting of SUNY Buffalo, SUNY Binghamton, Cornell University, Syracuse University, and the University of Rochester. FAUL organizational objectives are to develop coordinated acquisition policies, means for sharing resources, shared storage facilities, easy and rapid communication systems, compatible machine systems, other areas of cooperation, and a coordinated policy for long-range growth. Miller details current activities in each of the above areas, the progress made, and the difficulties encountered.

Miller, Ronald; Bayer, Bernard; and Balfour, Frederick. A Study of Technical Services Operation in the Libraries of the State University of New York at Buffalo. New York: Five Associated University Libraries, 1970. 39p. ED 049790.

Part of a series of technical reports dealing with technical services in the FAUL libraries. Covers acquisitions, precataloging, verification, and cataloging and the procedures followed in each of these operations. Excludes procedures dealing with non-book materials and serials. Does not make any evaluation of the practices nor any recommendations. Includes organizational charts and flow charts of the operations.

Moore, Everett L. "Processing Center for California Junior College Libraries— A Preliminary Survey," *Library Resources & Technical Services* 9:303-17 (Summer 1965).

Study attempts to determine if there are similarities among books purchased by junior colleges in southern California and, if so, would they be willing to have outside processing and what would be the comparative costs of individual library processing and cooperative and centralized processing. A sample of current acquisitions was taken and a questionnaire was sent to junior college librarians to ascertain their attitudes towards centralized processing. Technical processing costs are studied. Study finds that most junior college librarians use the same selection aids, have a significant correlation in books currently purchased, and positive attitudes. He believes that a processing center would be cost effective in the long run.

Mount, Ellis, and Fasana, Paul. "An Approach to the Measurement of Use and Cost of a Large Academic Research Library System: A Report of a Study Done at Columbia University Libraries," College & Research Libraries 33:199-211 (May 1972).

There is a pressing need for data on performance and cost for management purposes. Data was needed on salaries categorized by type of activity, space by major use, supplies and equipment by major use, bibliographic materials, and user services by type of activity. A user survey, circulation survey, special user

survey, literature survey, staff, salary, and equipment survey were conducted. These resulted in a mass of data that have been partially analyzed. Preliminary findings show that about 64.5 percent of the libraries' budget goes for research with the remainder going for instruction. Another finding was that a small number of users account for a significant portion of the circulation. Appendixes contain survey forms and some of the data.

New England Board of Higher Education. A Technical and User Audit of the Shared Cataloging and Support Subsystem of the New England Library Information Network (NELINET). Wellesley, Mass.: 1973. 253p. and 151p. ED 081439 and ED 081440.

A two-volume work evaluating the NELINET off-line cataloging system in order to determine changes that would increase performance and management control of the system. Specific tasks required were identification and flow charting of cost elements, visits by NELINET staff to identify problems and needs, user surveys, development of a statistical reporting system for ondemand reports, and procedures for inputting local catalog records. Questionnaires were sent out and detailed analysis was made of operations. Objectives, tasks, and procedures followed are described in great detail. Appendixes include questionnaire forms and flow charts. Volume two contains tables and supplementary documentation on unit times for various functions such as searching, typing, mailing, and checking, and budgets, staff, and holdings.

Nitecki, Joseph Z. OCLC in Retrospect; A Review of the Impact of the OCLC System on the Administration of a Large University Technical Service Operation. Philadelphia, Pa.: Temple University Libraries, 1974. 48p. ED 087482.

An analysis of the two-year experience of Temple University in using the OCLC system, with emphasis on the administrative aspects. Provides detailed diagrams illustrating procedures used in implementing the system; discusses pros and cons of a manual system versus OCLC and some problems and apprehensions concerning OCLC and large networks generally. Includes statistical data on time differentials for various manual and OCLC operations. Estimated costs and cost comparisons are also provided.

Nozik, Barbara. The Use Status of Books Requested from the University of California, Berkeley, Interlibrary Loan. Berkeley, Calif.: Institute of Library Research, University of California, 1974. 18p. ED 104411.

A study to test one of the assumptions of the state department of finance's report that items borrowed through ILL are low use items. The finance report suggests a northern and southern university lending center. These centers would purchase both high- and low-use materials. The California State University libraries would purchase high-use materials and borrow the low-use materials from the lending centers. The model assumes that low-use items at state universities would also be low use at the lending centers; thus the latter would not be inconvenienced by this model. Using a stratified random sample of 400 filled requests drawn from Berkeley ILL files for 1971–72, investigators found that: (1) many of the titles were in branch libraries, making searching very time consuming, and (2) 57 percent of materials requested by the CSUC libraries had high-use status on the Berkeley campus.

Nugent, William R. "Statistics of Collection Overlap at the Libraries of the Six Volume 20, Number 3, Summer 1976 • 281 •

New England State Universities," Library Resources & Technical Services 12: 31-36 (Winter 1968).

Overlap data was needed to determine the degree of joint use of cataloging information and the efficiency of collective reclassification for a regional processing center for the New England State University libraries. Two samples were drawn from each of the member libraries. From the samples, the percentage probabilities of duplication for each of the libraries were estimated. Results show a high degree of commonality; a random title from one library had a 40 percent chance of also being in another randomly selected library.

Palmour, Vernon E., and others, comps. A Study of the Characteristics, Costs, and Magnitude of Interlibrary Loans and Academic Libraries. Westport, Conn.: Greenwood, 1972. 127p.

A study conducted under the auspices of the Association of Research Libraries with a view toward developing an improved, adequate, and more equitable interlibrary loan system. The study gathered data on the costs of ILL, the characteristics of the materials loaned and borrowed, and the present and future magnitude of ILL. Based on a sample, the study finds a wide range of costs, no consistent relationship between lending cost per transaction and collection size, and that lending cost per transaction appears to be related to geographical location. Of particular value are the appendixes which furnish details on survey methodology, data preparation and tabulation, sample design, estimation and determination of sample weights, and collection costs.

Patrick, Ruth J. Guidelines for Library Cooperation; Development of Academic Library Consortia. Santa Monica, Calif.: Systems Development Corp., 1972. 200p.

A manual resulting from a U.S. Office of Education-sponsored study to develop a fund of information about academic library consortia in the U.S. Furnishes guidance to libraries that are forming or planning to form consortia. Case studies, interviews, and questionnaires form the basis. Material is organized into the following phases of consortia development: Exploratory Phase, in which other existing consortia are considered and the feasibility of establishing a consortia is examined; Planning Phase, which includes the identification of objectives, determination of organizational structure, and development of program plans; Development Phase, development of operational policies, procedures, and evaluation; and Operation and Evaluation Phase, in which various activities are implemented and evaluated. Current practices by consortia in each of the above phases are described, and advantages and disadvantages of alternate strategies during each phase are pointed out.

Pizer, Irwin H. "On-line Technology in a Library Network," in Clinic on Library Applications of Data Processing, 1972, p.54-68. Champaign: Graduate School of Library Service, University of Illinois, 1972.

Illustrates the capabilities of on-line systems for interlibrary loan in the SUNY network and their possibilities for accessing multiple data bases such as Chemical Abstracts, Biological Abstracts.

Reynolds, Michael M., ed. Reader in Library Cooperation. Washington, D.C.: Microcard Editions, 1972. 398p.

A collection of reprints of papers and articles grouped around four major

areas: theoretical considerations of library cooperation, the state of the art in library cooperation, future directions, and the nature of systems. Many articles are in the area of specialized cooperative activities such as acquisitions, shared resources, computer-based systems, retrieval systems. Includes a number of articles dealing with academic library programs such as the Farmington Plan, cooperative storage, use of MARC tapes.

Sage, Charles R. "Utilization of the MARC II Format for Serials in an Interuniversity Environment," in *Clinic on Library Applications of Data Process*ing, 1973, p.24–31. Champaign: Graduate School of Library Service, University of Illinois, 1973.

Describes an experimental project undertaken by the University of Iowa, Iowa State University, and the University of Northern Iowa to standardize their handling of serials through the use of the MARC format. Describes some of the difficulties encountered and their findings—that the format greatly facilitated the identification and tagging of data elements, bibliographic data were exchanged with ease, and common standards were adopted quite easily. Examples of MARC II serials input and output are given.

Schieber, William D., and Schoffner, Ralph M. Telefacsimile in Libraries. Berkeley, Calif.: Institute of Library Research, University of California, 1968. 137p.

Explores the feasibility of telefacsimile for interlibrary use. A one-month experiment was carried out between the Berkeley and Davis campuses of the University of California system in order to develop a design for the rapid transmission of journal articles; analyze the performance, possible demand, and cost; and consider the relative value of telefacsimile and possible areas for future research. Includes a description of the experimental design and a detailed analysis of the data gathered. Investigators conclude that a reorganization of manual procedures is essential before investment is made in a telefacsimile system.

Schmidt, C. James. "A Cooperative Interlibrary Loan Service for State Assisted University Libraries in Ohio," College & Research Libraries 32:197-204 (May 1971).

Describes and reports on the 1970–71 activities of the Reference and Interlibrary Loan Service (RAILS), a cooperatively funded service located at Ohio State University serving eleven state-assisted universities in Ohio. Cost figures are supplied as well as an analysis of kinds of use by library, reasons for unfilled requests, analysis by communication medium, and cycle times. Finds that requests are primarily for photocopies and that the volume of use does not coincide with the size of the collection at the borrowing institution. Rather, the dominant factor influencing usage of RAILS appears to be the service orientation of the library director and his staff.

Schorr, Alan Edward. "A Note on Interlibrary Loan Usage within a University Library," PNLA Quarterly 39:7-8 (Fall 1974).

An analysis of all ILL requests for 1972 for the University of Alaska. Of the 2,176 requests submitted by 249 individuals, 129 users made single requests and comprised only 5.9 percent of loans requested although they were 51.8 percent of the users. Eight users, or 3.2 percent of the user population, accounted for 54.4 percent of all the requests. Forty percent of the users were

faculty, and 32.2 percent were graduate students. Faculty and graduate students were overrepresented when comparing the percentage of their interlibrary loans with their relative size vis à vis all users. Undergraduates and others were underrepresented.

Spyers-Duran, Peter. Secondary Access Storage of Books in Small and Medium Sized Academic Libraries: A Proposal for an Experimental Model. Boca Raton, Fla.: Florida Atlantic University, 1973. 22p. ED 076201.

Cites three factors generating space needs: fast-growing collections, scope and level of service expectations of students and faculty, and demand for more and better service areas. The library's responses to this situation have included the subdivision of the library into smaller units, extensive use of microforms, cooperative collection development, and secondary and compact storage of infrequently used materials. The common assumption is that the least-used materials should be stored; therefore a method is needed to determine probable future use. The pertinent literature is reviewed. The author proposes a method by which a medium-sized academic library could determine the relationship between usage and the age of materials. Hypothesizes that there is a significant difference in the aging process among disciplines, and this difference increases when examined in correlation with language and country of origin of the publication. The author proposes using a stratified random sample of books in twenty-three subject areas. One portion would be locked up to simulate a storage situation, and the other portion would remain on the shelves. The use of the two samples would be monitored through automated circulation records over the period of one year.

Stevens, Rolland E. A Feasibility Study of Centralized and Regional Interlibrary Loan Centers. Washington, D.C.: Association of Research Libraries, 1973. 65p. ED 076206.

While the study does not focus exclusively on academic libraries, it has a number of implications for them. Reviews, analyzes, and evaluates the current ILL situation based on past studies, interviews, and visits to networks. Covers the present and projected future volume of ILL, types and sizes of libraries using ILL, characteristics of materials borrowed, cycle times, outcome, effectiveness, and major problems with the ILL system. Discusses the requirements for an ILL system and recommends that a national system be established with strong central planning and control but with decentralized services through a system of regional bibliographical centers. Outlines a methodology for a cost study, draws up a model of such a center, and suggests areas for further study.

Stevens, Rolland E. "A Study of Interlibrary Loan," College & Research Libraries 35:336-43 (Sept. 1974).

Analyzes, interprets, and integrates findings from five recent studies on ILL, including the ARL study by Palmour and others. He notes that all studies find the preponderance of the materials borrowed are in English and published within the last ten years. Not owned or noncirculating are the two major reasons for failure to fill requests. Time and costs per transaction are also discussed.

Summer Study on Information Networks. Edunet; Report. New York: John Wiley & Sons, 1967. 440p.

Study was convened in 1966 to be the basis for the preparation of a proposal for the operation of an interuniversity network. Over a period of four weeks, participants considered: identification of problems that could be solved and needs that could be met by an Educom style network such as pooling of resources, centralized processing; possible applications of network; organizational considerations concerning both the internal organization of the network as well as the relationship between members and the network; problems to be considered in the design, the software requirements of the system and the available technology. Two alternative design proposals are made based primarily on whether control is to be centralized or decentralized. Cost estimates are given for each. Finally, a proposal that represents a consensus on the need for and the characteristics of an Edunet system is presented.

Thomson, Sarah Katharine. "General Interlibrary Loan Services in Major Academic Libraries in the United States." D.L.S. thesis, Columbia University, 1967. 261p.

A study of ILL lending practices of major academic libraries in the U.S., characteristics of the requests they receive, the factors that contribute to success or failure of these requests, and recommendations for reducing the number of unfilled requests. Sources of data were 1,914 reports from academic libraries to the U.S.O.E.; 5,895 ILL requests from eight major lending libraries, i.e., a year's worth of requests for all eight; a ten-page questionnaire from 59 academic libraries; and 287 questionnaires from other randomly selected libraries. Variables investigated include characteristics of borrowing and lending libraries, characteristics of the request, policies and practices, accuracy of citation, and proportion of requests filled. Thomson finds that about two-thirds of all requests are filled but that there is a considerable range among the libraries in the percentage that each fills. Materials published since 1960 show the lowest filled rate. The four practices of borrowers that increase the percentage of requests filled are: requesting photocopies of serials, sending accurate citations, verification, and finding out in advance which library owned the requested item. Variations in lending policies produce significant variations in percentage of requests filled. The study recommends that changes be made in the general ILL code, that the ILL form be revised, and that a manual of ILL procedures and a directory of major lending libraries and their loan practices be published. This study was the basis for Interlibrary Loan Involving Academic Libraries (ACRL monograph no. 32 [Chicago: American Library Assn., 1970]).

Tolliver, Don L. A Survey of the Indiana Library TWX System as Implemented by the Indiana State Library and the 4 State University Libraries. Lafayette, Ind.: Instructional Media Research Unit, Purdue University, 1973. 21p. ED 073778.

Describes and evaluates current policies, activities, operations, staffing, and use of the TWX system through interviews with eighteen employees, each of whom is involved with TWX operations. Some of the findings show that lack of proper verification appears to be a major problem. The interviewees feel that a union catalog and a coordinated selection and acquisitions policy would be helpful.

Veaner, Allen B., and Fasana, Paul J., eds. Stanford Conference on Collabora-Volume 20, Number 3, Summer 1976 • 285 • tive Library Systems Development. Proceedings. Stanford University Libraries, 1969. 233p.

A collection of papers designed to disseminate information on library automation projects and collaborative efforts. While the papers are primarily descriptive, they are useful for background information on programs such as the Stanford Physics Information Retrieval System (SPIRES), Bibliographic Automation of Large Libraries Using Time Sharing (BALLOTS), and Collaborative Library Systems Development (CLSD).

Weeks, Kenneth. Proposals for a University of California/California State University and Colleges Intersegmental Machine Readable Patron Card. Berkeley, Calif.: Institute of Library Research, University of California, 1974. 27p. ED 082777.

With the possible advent of automated circulation control for the two university systems, there was interest in developing a compatible standardized machine-readable patron card. The study identifies major system requirements and specifications as well as campus requirements. Recommendations are made on a physical form and data contents for such a card. Machine-readable elements include a patron ID number (social security number when available), borrower status code, and campus code. All other elements are human readable.

Wilden-Hart, Marion. Cooperative Resource Development in the Five Associated University Libraries: A Study with Recommendations. New York: FAUL, 1970. 84p. ED 049768.

Report consists primarily of a series of recommendations on what FAUL should do to have an effective cooperative resource development program. Defines goals for the program, suggests a few reasons why the FAUL Resource Development Committee was not very successful, and recommends that a series of studies be undertaken dealing with user requirements, service performance, development of acquisition policies, book retirement programs, etc. Very little data.

# **Progress on Code Revision**

THE FOLLOWING ACCOUNT of decisions made by the Catalog Code Revision Committee at its meetings in January 1976 has been provided by Frances Hinton. The most recent earlier account of the committee's activity appeared in the spring 1976 issue of this journal.

Form subheadings for both legal and religious materials should be

abandoned and uniform titles established for both.

Laws should be entered under the promulgating jurisdiction with a

mandatory added entry for the jurisdiction governed.

The committee withdrew its proposal to enter an author who uses a pseudonym under the real name and substituted the proposal to enter under the form appearing on the title page. Entry should, however, be under the predominant form if there is one, whether real name or pseudonym.

The committee rejected the proposal to add a place name as qualifier to all or most corporate body headings and voted to retain the present rule, which makes such additions only when needed to distinguish be-

tween identical or similar names.

The committee voted five to four in favor of limiting entry under a corporate body to publications dealing with the administrative affairs of the body and published by it or in some other way bearing its authority. Legal documents should also be entered under corporate author.

The committee has not established a firm position concerning entry of subordinate corporate body other than expressing preference for an increase in direct entry of such units and for use of the same criteria

for governmental and nongovernmental bodies.

If the committee's restriction on the use of corporate authorship is accepted, the committee withdraws its request for arbitrary entry of serials under title. If the committee position is not accepted, it will support Eva Verona's recommendation of entry under title proper of all except administrative documents, such as membership lists.

The committee agreed that bibliographic description of a microreproduction should be primarily a description of the original item, but

made no specific recommendation for the format of the description.

The committee supported the British proposal to enter corporate names consisting of personal names in direct order, even if one or more of the forenames appear as abbreviations or initials.

The committee supported the Canadian proposal to disregard typog-

raphy as a criterion for entry under acronyms or initialisms.

# IN THE MAIL

### **Government Documents**

My first reaction on reading John A. McGeachy's recent article, "The Monthly Gatalog's First Response to Its 1947 Congressional Charge" (Library Resources & Technical Services 20:53-64, Winter 1976) was that there was something both good and bad about it. This impression was confirmed by further analysis based on my research as Chairman, Work Group on Bibliographic Control, Federal Documents Task Force, Government Documents Round Table (GODORT).

First the good news. McGeachy makes a valuable contribution to the literature and the profession by the following parts of his article: analysis of the depth and quality of the indexing of the Monthly Catalog (pp.59-61); comparison of Library of Congress cataloging with that of the Monthly Catalog (pp.61-62); and Table 2 showing inclusive depository mailing dates of publications listed in the Monthly Catalog from February 1971 to March 1972 (p.58).

Now for the bad news. McGeachy fails utterly to investigate elements essential to the stated purpose of his article. The title is grossly misleading and inappropriate. Indeed, the best parts of his article dealing with a comparison of GPO indexing with Library of Congress cataloging has only an indirect relation to the stated purpose of the article. His purpose is presumably to examine how the Monthly Catalog has fulfilled the dual role of a "comprehensive index of public documents" and a "sale catalog of federal publications." A full reading of the statutory authority (44 U.S.C. 1705) indicates that "comprehensive" refers to the requirement for a complete bibliographic listing of all publications "printed by the Government Printing Office," and every document "issued or published" by other federal departments, bureaus, and offices from their own printing plants. It does not directly refer to the depth or quality of the indexing of those publications which are to be included in the comprehensive bibliographic list.

It is inconceivable to me how one can competently analyze the "comprehensiveness" of the Monthly Catalog by limiting his examination to the number and character of publications distributed to depository libraries. It is even less conceivable how an analysis of the bibliographic control of the National Union Catalog serves this purpose. McGeachy's limited sample of 100 depository publications indicate that only 39 of these were listed in NUC. My more complete survey of 16,770 GPO and non-GPO entries in the Monthly Catalog for the first eleven months of 1973 indicate that LC cards were issued for only 3,401 (20.3%).

McGeachy uncovered an already well known fact that certain categories of depository publications are excluded from listing in the Monthly Catalog. The exclusion of bills and resolutions is obvious, reasonable, and well known. He would have found a more complete listing in the GODORT newsletter, Documents to the People (DttP 1, no. 4:9, Sept. 1973). The matter of bibliographic control of federal documents has been a continuing concern of GODORT since its establishment in 1972. The following three articles which were published in

Documents to the People before McGeachy submitted his manuscript are significant: "Suggestions to GPO by GODORT" (DttP 1, no. 3:21-27, May 1973); "GPO Responds" (DttP 1, no. 4:6-11, Sept. 1973); and "Analysis of GPO Reply to GODORT Letter of February 5, 1973" (DttP 2, nos. 3 & 4:17-22, April 1974).

However, McGeachy did uncover one category of publication which was not listed in the GPO reply to GODORT: i.e. publications with copyright material. GPO gave as its reason for excluding this category from listing in the Monthly Catalog that "all publications so listed must be microfilmed." There is no statutory authority for such exclusion. I believe that microfilming of publications entered in the Monthly Catalog is done for the benefit of a commercial microform publisher, and not for the benefit of the government or the public. As for the exclusion of reprints, GPO appears to be receptive to a GODORT recommendation that reprints will be entered if there is a change in issuing agency which results in a change in SuDocs numbers.

The problem of lack of comprehensiveness is not one of excluding GPO publications which are usually distributed to depository libraries, but the failure to list the great majority of non-GPO publications. GODORT is very much concerned about this situation as indicated by the articles in *DttP* mentioned above. McGeachy makes absolutely no attempt to examine the number and character of non-GPO publications which are not entered in the *Monthly Catalog*. This is admittedly an almost impossible task. About all one can now find are very rough estimates. My own estimate based on experience in the Department of Defense is that non-GPO titles account for nearly 95% of the total output of the government. In a recent article ("The Monthly Catalog and Bibliographical Control of U.S. Government Publications, *Drexel Library Quarterly* 10:79–105, Jan. April 1974), I quote two estimates by knowledgeable government officials. In 1962 a staff member of the Senate Committee on Rules and Administration made an estimate of 60–65%, and in 1972 the Public Printer estimated that 85–90% non-GPO titles escape the bibliographic net of the *Monthly Catalog*.

In my research for this article I also attempted to measure the time lag between receipt of a depository publication and its listing in the *Monthly Catalog*. My mean lag time of 71 days compares closely to McGeachy's result of 77.52 days mean lag time. Although we both used only depository publications, McGeachy used a limited sample of 62 publications spread evenly over a 14 months' period, while I used 595 publications listed in one issue of the *Monthly Catalog* for November 1973.

McGeachy's analysis of the time lag for listing of depository publications in the Monthly Catalog represents a feeble attempt to examine the effectiveness of meeting an assumed goal of a "sales catalog." I seriously question McGeachy's assumption that the main purpose for the establishment of the Monthly Catalog in 1895 was as a "sales catalog." McGeachy fails to even examine how many publications in his limited sample were sales publications. In my research I found that of 16,770 publications listed in the January-November 1973 issues of the Monthly Catalog a total of 6,442 (38.4%) were sold by GPO, and that another 454 titles (2.7%) were sold by GPO but were not distributed to depository libraries. McGeachy also fails to properly interpret statutory authority when he states the Monthly Catalog should "appear" on the first of the month with a list of documents printed during the preceding month. The law clearly states the Superintendent of Documents will "prepare" the catalog on the first of the month. This requirement is certainly not unrealistic as McGeachy claims, since Congress set no deadline for such preparation and subsequent printing and

publication. However, McGeachy does show that the cut-off date has usually been the middle of the preceding month (anywhere from the 4th to the 20th) and not the last day of the month. Indeed under the Kling regime the cut-off date was advanced another month so that the March issue for example appeared before the end of March.

McGeachy fails to make any comparison of the present, or post-1947 Monthly Catalog with the Document Catalog, or with the pre-1947 Monthly Catalog. He quotes a contemporary Public Printer that the Document Catalog was "entirely a duplication in expanded form of the entries in the Monthly Catalog." If this is so, McGeachy should have investigated why it was necessary after 1947 to publish three supplements of the Monthly Catalog for the years 1941–1946. The entries in these supplements were presumably titles which had been held for publication in the Document Catalog and had not been listed in the original Monthly Catalog issues for those years.

The timing in publication of McGeachy's article some 18 months after receipt of the manuscript is both fortunate and unfortunate. The period covered by his sample was fairly normal. However, in late 1974 the GPO Library moved from the main GPO building in downtown Washington to larger quarters off the Capital Beltway in Alexandria, Virginia. The move resulted in delays in shipments of depository items, and accumulation of a large backlog of depository publications which delayed their entry in the Monthly Catalog. Problems with the automation of catalog preparation were also experienced resulting in delays and backlogs. A backlog of 7,000 entries, many from 1974, was let out to a contractor which resulted in added problems. These entries are finally being published in four separate issues (October and December 1975 and two issues in 1976).

Automation plans for the Monthly Catalog were drastically revised in early 1975 to employ MARC format accompanied by use of LC subject headings (augmented as required) and Anglo-American Cataloging Rules with LC type entries, and participation in the OCLC network. GPO has optimistically forecast a change in format and scope with the July 1976 issue of the Monthly Catalog. I think that a January 1977 date is more realistic. This dramatic development thus makes more valuable at this time McGeachy's comparison of present Monthly Catalog entry and indexing with Library of Congress cataloging.—LeRoy G. Schwarzkopf, Government Documents Librarian, University of Maryland, Coordinator, Federal Documents Task Force, GODORT/ALA.

# The Author Replies

Excepting the Divine it is impossible to be "all things to all men," but this seems to be what Mr. Schwarzkopf was expecting as he began to read my article. Though its purposes and limitations were explicitly stated in the abstract and prefatory material, there are complaints of "utter failure," "incompetence," and "feeble attempts" to analyze aspects of the Monthly Catalog's problems which are beyond the expressed purposes of the paper. The choice of a title seems responsible for Schwarzkopf's critical remarks. The editor did suggest a title change, but that which was suggested would have been of no greater help to the critic.

The eighteen month delay in publication of the paper is mentioned; a recapitulation of the research's history may be illuminating. The material in the paper was originally gathered in 1972-73 as a part of the requirements for the

author's M.A. degree, and was presented in a thesis entitled "The Monthly Catalog of U.S. Government Publications: A Study of the Coverage of Publications Mailed to Depository Libraries During 1971," dated Chicago, June 1973. During the next year the material was greatly condensed and recast into a historical context occasioned by the Monthly Catalog's adoption of computerized techniques and the realization that this action initiated a renewed response to Congressional charges. Perhaps Schwarzkopf would have been more comfortable with the thesis title.

Let me restate the purposes of the research, which were three-fold: (1) to determine the time lag of depository publications listed in the *Monthly Gatalog*, (2) to investigate the indexing of the bibliography, and (3) to compare this indexing with that provided by the Library of Congress. Significantly Schwarzkopf identifies these elements for his "good news"; I am grateful for his kind words.

Schwarzkopf seems concerned by the small size of my sample. Let me assure him that it was chosen after much discussion and calculation to insure results with a 95 percent confidence. I note that the sampling he reports having taken involved examining approximately 50 percent of the population, surely a generous proportion. There is a point beyond which further sampling produces only minutely more accurate estimates. Several pages of my thesis, as do most statistics texts, discuss the sampling process and the calculation of its size.

Referring to specific points of criticism: the Printing Act of 1895 authorized the issuance of the Monthly Catalog, the Document Catalog, and the Document Index. Of these the Document Index was for congressional documents and the Document Catalog was the "comprehensive index of public documents" leaving the Monthly Catalog as the most timely publication of the GPO until the appearance in 1928 of the Weekly List. As such it would surely serve as the sales catalog of the GPO.

In our difference of opinion over the interpretation of the word "prepare" in 44 U.S.C. 1711 I will only emphasize what Schwarzkopf himself has pointed out, that during the "Kling regime" the production schedule of the Monthly Catalog was altered in an attempt to issue the bibliography "on the first day of each month." But, of course, it was then impossible to fulfill the statute's next phrase, to "show the documents printed during the preceding month," just as it has generally proved impractical to do so.

Concerning the three 1941-46 supplements of the Monthly Catalog which consist largely of declassified and processed material, Schwarzkopf could read with profit the thesis of Robert Whitefield Bullen, "Characteristics of Entries Listed Late in Selected Issues of the United States Government Publications Monthly Catalog" (M.A. thesis, Emory University, 1953).

# ISBD PROVISIONAL DRAFTS

The provisional draft of the International Standard Bibliographic Description (General), the recommended annotated text prepared for the International Federation of Library Associations (IFLA) Working Group on ISBD (G) by Michael Gorman, is available for examination and comment. The document will be discussed on 25 August 1976 at a session of the IFLA Committee on Cataloguing during the IFLA meetings in Lausanne, Switzerland. Those unable to attend the IFLA meeting may send comments before 31 August 1976 to the

Chairperson of the Working Group, Dr. Eva Verona, Gunduliceva 61, 41000

Zagreb, Yugoslavia.

The provisional draft of the International Standard Bibliographic Description for Nonbook Materials (ISBD (NBM)), prepared by the IFLA Working Group chaired by C. P. Ravilious, is also available for examination and comment. The document will be discussed on 26 August 1976 at a session of the IFLA Committee on Cataloguing during the IFLA meetings in Lausanne, Switzerland. Those unable to attend the IFLA meetings may send comments before 31 August 1976 to C. P. Ravilious, Assistant Librarian, University of Sussex, Brighton BN1 9QL, England, U.K.

Single copies of both of these provisional drafts are available free to interested persons in the U.S. from the RTSD Office, American Library Association, 50 E. Huron St., Chicago, IL 60611, until 31 August 1976. Persons in Canada may obtain copies from the Offices of Library Standards, 395 Wellington St., Ottawa, ON K1A 0N4, Canada. Persons in other countries should contact the IFLA Universal Bibliographic Control Office in London about the availability of copies.



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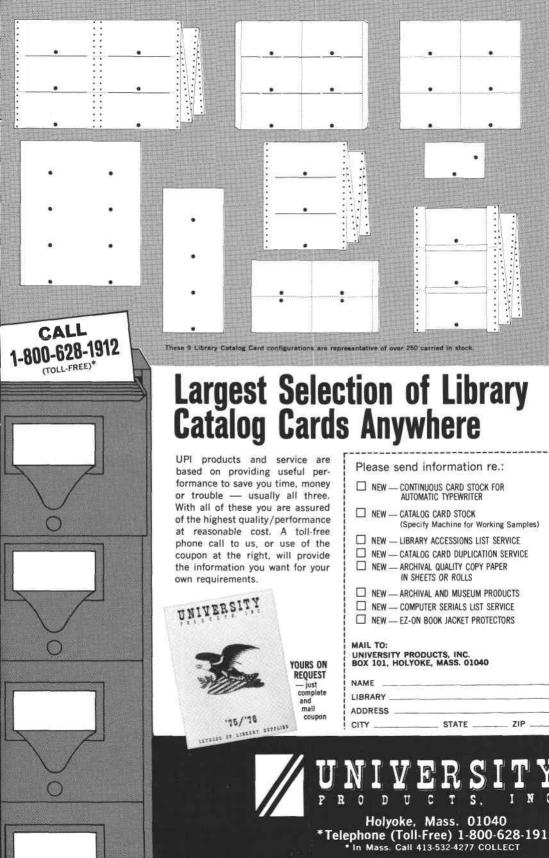
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