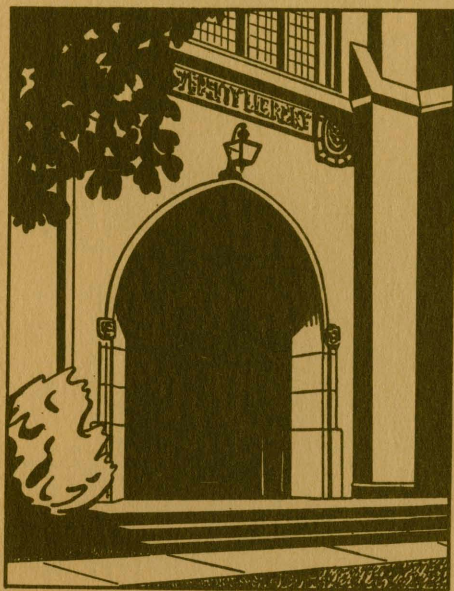




University of Tennessee
LIBRARY LECTURES

numbers twenty-two, twenty-three, and twenty-four

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1970-72

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FOREWORD

When the University of Tennessee Library Lectures were initiated in 1949 at the suggestion of William H. Jesse, Director of the University of Tennessee Libraries, 1943-1970, it was hoped that they would, in Mr. Jesse's words, afford a "broad library-problem-treating series" presented by eminent authorities in the field. Through the years the series has obviously accomplished what it was intended to do, and the three lectures offered here add to its prestige.

In basing his consideration of the age-old problems of book selection and collection development on "the first work to deal with the whole aspect of setting up a library," Dr. Harrer gives a pleasing scholarly tone to his up-to-the-minute treatment of today's university concerns.

Dr. McAnally's interest in the problems of effective interlibrary loan service has been evidenced in his publications and in his work as chairman of the Association of Research Libraries' Interlibrary Loan Study Committee. He presents an expert's report of what has been done in this aspect of interlibrary cooperation, the inherent problems, and the need for more active efforts toward their solution.

Dr. Zachert, exhibiting in her lecture the traits of an excellent teacher, gives an enlightening account of the role of the adult learner in the planning and execution of programs of continuing education for librarians.

Eleanor E. Goehring

August 1, 1972

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library lecture number twenty-two

UNIVERSITY OF TENNESSEE LIBRARY, APRIL 28, 1970

By Gustave A. Harrer

Director of Libraries
The University of Florida

“ . . . Concerning the Erecting of A Library ”

To take a place in this series has been something of a trauma for me, since I have reviewed the lectures presented in the past by distinguished librarians and note that a large number of them have been able to instruct you in something from the large store of their wisdom. Since, with Father William, “I’m perfectly sure I have none,” I am at a disadvantage, and consequently, though I wanted a quotable title, I have left off the first word of the quotation, that word being “instructions,” and will only try to *think* with you about some of the unanswered problems of university library development that bother me. And though I may talk in great generalities, I hope I may say something that will lead to lines of reasoning productive of more constructive solutions than have been forthcoming in the past.

I am sorry if the title of this lecture has been misleading, suggesting that I will talk about buildings. Certainly not at an occasion where Bill Jesse and Mac Abel are present! But the misinterpretation is reasonable, partly because the growth of both collections and populations of our universities has inspired in librarians and administrators alike a syndrome best known as an “edifice complex,” and further, to many, the development of the collection—the identification of that information which should be in the library and the form in which it should most properly be stored—is something which somehow just happens, or is only a matter of collecting a copy of every book and cataloging it.

The title was meant rather to be erudite and impressive, having been taken from the title of what is probably the first work which concerned itself with the whole development of a library. As I think of the confusion which often surrounds the use of the word "library"—is it the building or the books or the staff?—I am reminded of one of my most favorite quotes, to be found over the doorway of one of the world's great libraries: "This is not the library. The library is inside." And it is of "the library inside" that I want to speak tonight.

Unfortunately, as we all know, there are a number of things wrong with the notion that collection building is just "getting everything," perhaps the first of which is that no library has the ability to identify everything; secondly, no library has the money to procure everything; thirdly, no library has the space to store everything; and finally, *no library needs everything*.

Before you jump on me, now, for that last statement, let me make a few observations about our times. Over the last several years, for various reasons, money available for increment to the university budget has, by and large, been harder and harder to come by. University presidents, and therefore *their* vice presidents and therefore *their* deans and therefore *their* department heads and faculty, have been pressed to justify, to analyze, to consolidate, to economize—but basically, to make sure that every cent is being used in the best way to provide the best educational opportunity for the students. And part of the thrust of what I would say this evening deals with the library in just this context of pressure for university dollars, and our responsibility—yours and mine, faculty and librarian—to see that we can *prove* that the library *must be supported* for the best health of the institution. For make no mistake, the library is under this same pressure.

It is customary, and of course, *expected* that the librarian should go to the administration with all of the arguments possible—with all of the dire predictions of imminent collapse of the academic program—with threats of mass resignation of all senior professors—in order to get more money for the library budget. While this course may be defended by pointing out that the library budget runs head-on into the budget for the college of what-ever in the Vice President's office, and though *that* budget is based on the *same* dire predictions, it is to make decisions of this sort that we have vice presidents; is it possible that this is not only unfair to vice presidents, but it may well not provide for the best wel-

fare of the academic program, the outcome being, for one thing, unduly influenced simply by the rhetorical ability of the proponents? The library is a peculiar unit, in that it is always conceded to be an academic entity, usually peopled by a dean and faculty and responsible to the Academic Vice President. Nevertheless, it is basically different in its relationship to the other academic budgets with which it must contend for funds. The library deals with people and services, not to one group but to the university community as a whole, and to some large extent the quality of the whole institution is dependent on those services. Unlike the budgets of the other competing units, which usually approach 90% for personnel, the library budget is approximately 60% for personnel and 40% for materials, namely recorded information, and what is acquired with this money has a major effect on the academic program of the institution. Furthermore, the balance between books and staff is an essential question, not only because some of the personnel are required to buy and organize the books (no one budgets a pile of bricks without masons to lay them into the form of a house), but because a book collection without staff to help the user use it is only one part as valuable as one where an appropriate amount of librarian help is available.

In addition to these peculiarities, the demand of the general public for library services and the appetite of everyone for more books is insatiable. With the pressure of demands for all sorts of expenditures, and with the increased costs of everything (including library materials at a rate of 8% or more per year), I am convinced that we librarians and faculty must undertake the responsibility to prove more conclusively than we have in the past, what library support should be and thus help to see that the university dollar is utilized in the best way for the goals of the institution. Or to put it specifically, how many of X dollars available do we need for faculty salaries, how many for lab equipment, and how many for books to produce the best educational setting? A major question, "What needs should the library collection satisfy?" is one that has not been discussed very much. Would we say that it is a tacit assumption among American scholars that the library should be able to supply all needs for recorded information? Of course, as this task became obviously too large for any one library, the Farmington Plan divided up the job of collecting in specialized areas among many libraries, but the assumption is still there; the university libraries *as a group* should supply any need for recorded information, be it by good or bad scholars, right or wrong, old or new, big or little, popular or unpopular. The library should have it.

Being a historian at heart, I tend to think there are few new concepts in the world, and I enjoy looking back at earlier statements—so if you don't mind . . . : This tradition goes back a long way, indeed to the first extant work on books and libraries, the *Philobiblon*, by Richard Aungerville, known as De Bury. In this essay, De Bury, living in the academic sterility of the first half of the fourteenth century, was concerned with justifying to his contemporaries the passion for books for which he was so well known, and though we can suspect from some of his statements that he had good rules by which to select those works he wished to own, he nowhere set them forth in detail. He does tell us of his preference for the "older authorities," though he admits the more contemporary writers cannot be overlooked since many have had the insight to improve on their mentors' work. A most interesting argument—to have been written just over a hundred years after the Inquisition—is that which defends the inclusion of the writings of the heretics, so that one may know their arguments and better refute them. (Naturally he had the good sense to include also grammars of foreign languages so that people might more easily learn these languages, become properly educated, and then read the works written in them.) And so we see that, with the exception of materials on law and government which he says have no basis in fact, only in custom, he tried to collect everything.

The work from which the rubric of this lecture was taken was entitled by its author, Gabriel Naudé, in the original French of 1627, *Advis pour dresser une Bibliothèque* and by its translator, John Evelyn, Esq., in 1661, *Instructions Concerning Erecting of a Library*. It is, as suggested, the first work to deal with the whole aspect of setting up a library, including the reasons why one should want to, what the necessary knowledge about libraries is, the number of books required, their quality, how procured, where they should be kept, in what order, and for what purpose. The author, born in 1600, was a widely known and liberal scholar, brought back to Paris from Italy in the 1640's by Richelieu, appointed librarian to Cardinal Mazarin, then to Queen Christiana of Sweden, then again intending to return to Paris to join Mazarin but perishing en route. Naudé's little work, he tells us, was released to the public to relieve him of the necessity of constantly giving advice to people concerning the niceties of organizing and maintaining a library. Incidentally, with great insight he points out among other verities that librarians are born, not made:

As true it is, that it is not every man's Talent to acquit himself happily in this affair; and that the pains and the difficulty which

there is in acquiring a superficial knowledge only of all the Arts and Sciences, to deliver ones self from the servitude and slavery of certain opinions, which make us speak and govern all things according to our Fancy, and to judge discreetly and without passion, of the merit and quality of Authors; are difficulties more than sufficient to persuade us, that what Justus Lipsius elegantly spake, and much to the purpose, of two other sorts of persons, may be truly verified of a Library-keeper: Consuls are made each year, and new pro-consuls; but not every year is a king or a poet born.¹

And if we inquire of Naudé what should be in the great scholarly public library he dreamed of, we find a great similarity with our own philosophy. Of course, we should remember as background that scholars of those days, contemplating great scholarly collection, thought of the Alexandrine Library of the second century A. D. which was reputed to have had 700,000 rolls!—which might equate with *half* that number of our volumes—and we do not again find such a collection until 1850 at the University of Göttingen.² So though Naudé cannot have been thinking of a collection such as the Library of Congress, or Berkeley, or UT, he was thinking of a library representing the totality of scholarship, hence his reasoning is remarkably modern.

He would, he states, (as indeed would we) collect “all the catalogues, not only of the great and most famous Libraries . . . but also of the *Studies and Cabinets*,) i. e., special collections . . . which for not being much known, or visited, remain buried in perpetual silence.”³ In support of this advice he adduces the facts that bibliographical identification is needed, that knowing the quality of the scholar or the institution responsible for the library in question, it is possible to guess at the quality of the works listed, and finally, “for that by this means, one may sometimes do a friend service and pleasure; and when we cannot furnish him with the Book he is in quest of, show and direct him to the place where he may find some Copie . . .”⁴

¹Gabriel Naudé, *Instructions Concerning Erecting of a Library* . . . interpreted by Jo. Evelyn, Esquire. (Cambridge: Printed for Houghton, Mifflin & Company at the Riverside Press, 1903), pp. 3-4.

²J. Periam Danton, *Book Selection and Collections: A Comparison of German and American University Libraries* (New York: Columbia Univ. Press, 1963), p. 20.

³Naudé, *op. cit.*, pp. 22-23.

⁴*Ibid.*

Those are indeed public-oriented thoughts—thoughts indicating that, truly, he is interested in more than the development of a great pile of books for his own delight; he desires a store of knowledge to satisfy the public's need for information. And if he has progressed this far in his thinking, surely he has thought through the problems of selection and collection development and cost.

Alas, this hope is quickly dashed on the rocky ground of facts, for we have only to turn a few pages to find a remark worthy of a modern librarian: “. . . this being a perfect Maxime, That there is no Book whatsoever, be it never so bad or decried, but may in time be sought for by some person or other; . . .”⁵ Or again later, in answer to his self-placed question concerning the requisite number of books, he comments: “. . . all those which shall have the qualities and conditions requisite and fit to be placed in a Library.”⁶ A big help he is!

So we leave the seventeenth century, no more enlightened than we were, and through the subsequent years most scholars and librarians have agreed with Naudé: the library should have “one copy of everything.” To be sure, in the last hundred years many essays have been written on the subject of book selection, and the principles thereof have been widely examined and agreed upon. Indeed, libraries have been exhorted to write out collection policies—and some have done it—but most have been mealy-mouthed statements which would recommend the collecting of everything and would exclude nothing except “works over 500 pages on the diet of pet Eskimo seals” or the like.

To my mind, one of the most thoughtful and thought-provoking books on the basic problems of university libraries recently is J. Periam Danton's *Book Selection and Collections; A Comparison of German and American University Libraries*, and from him we can take a statement representing the consensus of modern American university library thought on the question, “What should be collected?” He says:

As has previously been suggested, the answer to this question is exceedingly simple. The university library should acquire those materials which, now and in the future, will best serve the objectives of the university, that is, fulfill the

⁵*Ibid.*, p. 33.

⁶*Ibid.*, p. 37.

instructional and research needs of its faculty and students. For reasons already noted, the answer to the question which naturally follows: "What are those materials?" is extraordinarily difficult and complex.⁷

He couldn't have said it better!

He goes on to point out that German university libraries, in contrast to American, have rather consistently insisted that their responsibility was to collect only "research material." Now, let's define "research material"! And he points out that virtually anything can be the material on which a research project may be based. Furthermore, while German university libraries may be able to restrict their collecting to this, American university libraries are expected to be general repositories and usually have a hard time even insisting that they should not buy textbooks; certainly the necessity of providing a collection for the use of freshmen and sophomores is fully accepted. Danton proposes that, "If an institution is unable to provide a library capable of supporting most of the research of most of its faculty most of the time, it has no justification in claiming to be a university."⁸ I think that there is no librarian or scholar—or even university administrator—who would argue with the sense of this statement. But it must yet be admitted that that is a very general statement, for surely there is involved the question of what is "most" and what is "support," and does one count *all* of the research projects proposed, or should researchers consider that Tennessee does *not* have Cornell's Icelandic collections and Florida does *not* have Boston University's African materials?—and so forth. Of course, the Farmington Plan divided up all of this responsibility, but we are still stuck with the prospect that everything should be collected, just by "someone else." And as for the definition of "research material," for which we might expect to find some general support, Bob Talmadge gives us a good summary in his 1958 study of the Farmington Plan:

We now doubt that any two libraries could reach complete agreement on a general, working definition of "research interest" (the qualification for material to be sent automatically by foreign dealers) if they sat down to work one out. This . . . was tested back in 1952, when four well-known librarians set out to check in the Swiss national bibliography for 1949 the items they

⁷ Danton, *op. cit.*, p. 105.

⁸ *Ibid.*, p. 117.

thought would meet the definition. Excluding fiction, drama, and poetry, they reviewed 1,022 items. They agreed unanimously on only 110 items; they voted three to one (either for or against) on 396, and on 516 items, just over half of the total, two voted yes and two voted no.⁹

In recent years there have been attempts by librarians to establish standards for various types of libraries, such as high school, junior college, and college libraries, with varying success, depending upon whom you asked. But some amount of acceptance has come to support these formulas as starting points for a working approach. For some of us it has been a rather tantalizing question, then, whether it might be possible to propose some sort of a formula for university libraries, although admittedly they are a different breed of cat. One of the first written proposals along this line was the so-called "Clapp-Jordan formula" which tried to analyze the university library's responsibilities as dependent on the number of students, faculty, subject areas, and degree programs at a given institution—with proposed ratings for each factor—and thus to determine the minimum size of the collection for such an institution and hence its budget.¹⁰ This type of approach—that is, the consideration of a university library as a collection of special libraries, each serving a special clientele—has always made good sense to me, and I believe further research along these lines will be fruitful. To be sure, there are those who fear that any "minimum" proposed will be taken by university budget officers to mean "appropriate level" and their above-minimum budget will suffer. I believe there is greater sophistication to be found among academic administrators than that, though I admit I am not so confident about legislators.

If by this route we were to determine the appropriate size of the total collection—or, indeed, its parts—would we be any closer to determining what those materials should be? I believe not, unless we were to sit down and carefully analyze the needs in each area. The principles of book selection as expounded have perhaps assumed the knowledge of the subject matter one wished to collect, but not enough emphasis has been placed on the necessity of exact understanding between librarian and scholar concerning the goals of the collection. Our friend Naudé is

⁹ Robert Talmadge, "The Farmington Plan Survey: An Interim Report," *College and Research Libraries*, XIX (Sept. 1958), 379.

¹⁰Verner W. Clapp and Robert T. Jordan, "Quantitative Criteria for Adequacy of Academic Library Collections," *College and Research Libraries*, XXVI (Sept. 1965), 371-380.

an example of this sort of generality, though it may be he should be excused, for he was in a sense defending a budget request and, to this end, stated flatly that the library must be all-inclusive. But for his day he made a contribution by analyzing the various qualities of books and the needs of libraries, albeit in some ways a bit general. He points out that a library must collect the works of the best authorities on all subjects, in the best editions, in the original language, and in translations which would made them most available. There should be next to them the best commentaries on these works, and not far away there must be the works of those who have best refuted or opposed them. Those who have innovated must be represented, but definitely also those most ancient authorities, "Since" says Naudé, "'tis with men's Learning, as with water, which is never more fair, pure and limpid, than at its source."¹¹

The true scholar and humanist shows through in his next recommendations, that the works of questionable authorities should be collected so that there will be a copy for other scholars to refute. Likewise the scripture and writings of the proponents of alien religions—for example, the Koran and the writings of Calvin and Luther—and indeed the works of the most learned and famous heretics (with proper permission of the appropriate authorities, of course). We must collect reference and encyclopedic works. He even establishes Special Collections with his admonition that we must collect from great scholars their manuscripts and notes, "Not only . . . all their Books, but even . . . the least of their Fragments, Papers, loose Sheets, and the very words which escape them."¹² Accept and collect also that which is fashionable at whatever time or place, since fashions change. And finally, you must sometimes put aside your requirements that all your books be excellent, and you must buy some because they are the only books on that subject.

To restate the gist of this concern of mine, let me say that I am distressed that we librarians and we scholars (for I will not let you faculty off) have not been able better to come to grips with the problem of selection, and we are left with a policy to collect everything—and little defense for it. What can we do otherwise? Well, I would like to suggest that we could sit down together and analyze in detail many factors that enter into our purchasing policy. A first large matter to be solved is, in

¹¹Naudé, *op. cit.*, p. 49.

¹²*Ibid.*, pp. 57-58.

what subject areas do we wish to collect? For a general university, of course, there is hardly a subject area that should not be represented in some fashion, but there are, within the large subject fields, smaller specializations that require different levels of coverage. Although such terminology would be somewhat subjective, perhaps we can set up terms to indicate the depth of coverage, such as "research," "graduate instruction," "minimal," and "nothing." These terms then would be assigned to each subject area as we considered it. The subject areas would be as large or as small as would be applicable to our interests, but if, for instance, we are interested in oceanography (but not in the geologic side of the subject, and only mildly in the economic aspects) we would so indicate. Likewise if there are geographic limitations—we *really are* specializing in the Gulf of Mexico and the Caribbean area—then *this* must be indicated. Thus we develop in fact, for our institution what has come to be referred to as an "interest profile" when applied to individual interests. Such decisions *must* not be intended to be permanent—academic programs do and should change—but for the purposes of carrying out a cleanly defined program of collection development, such agreements would keep everyone involved in tune, and would certainly enable us to point out in some detail those areas that must be strengthened.

It would also prepare us to begin thinking in terms of a much more efficient method of acquiring books. The cost of acquiring a book has for a long time been a source of embarrassment to librarians, not because we doubted—at least I didn't—that the work was worth it, but simply because it shocked everyone (who wasn't in the library) to discover that it cost almost as much to process the book as to pay for it. We have brought these costs down somewhat, but it is a peculiarity of the library that size does not bring economy. Basically the trouble is that we must make ever more complicated decisions as the collection and rate of acquisition gets larger. Book selection is a case in point. If one is selecting from among a universe of two books, it's relatively simple. But as that universe increases to 4, to 16, to thousands, the complexity increases astronomically. However, if the factors on which these decisions are made can be identified and specified, no matter how numerous they may be, decisions can be made more efficiently. And of course, this sort of situation is ready-made for the computer.

In the late 1950's we at Stanford, along with other institutions, began to realize from studies of our acquisition patterns, that we were

acquiring, one by one, almost the total output of certain presses—notably university presses, but also some scholarly commercial presses. Given the higher discount available if we had a standing order for *all* publications, and the opportunity to select with the book itself in hand, and return it if not wanted, and to receive the volume prior to publication date in most cases, it was eminently sensible to place standing orders for the total output of these presses.

One of the dealers who supplied a major number of domestic publications to us told me one day, after I had commented on his rapid service, that he had been able to supply over 85% of our orders from his shelves, and that we had ordered from him almost 90% of those materials that he had stocked because he expected that we *would* order them. This was, of course, an important discovery, and he proposed that he might as well send along those he had chosen, let us look at all of them, and return those we didn't want. Certainly this was no novel scheme—our friend Naudé said it:

But since it is necessary for the growth and augmentation of such a [collection] to furnish it diligently with all the new Books of merit . . . it would be very expedient . . . to make choice of two or three rich Merchants knowing and experienced in their vocation, who by their various intelligences, and voyages, might furnish us with all kinds of novelties . . .¹³

Today, combining these several ideas and the facility of the computer, the possibility exists of putting into a computer the bibliographical record of current publications, with coded descriptors relating to their various qualities, such as, of course, subject, but also level of difficulty, type of book, type of edition, language, language of original if a translation, chronological period of subject matter, price category, country of origin, and so forth. Against this then is passed the profile of the library's interest, and a list of those titles that match is spewed forth. (Since the computer doesn't care, let's get it to print out the data in the form of a 3 x 5 file slip and save some work in recording, processing, bill-paying, etc.) And by now you are all aware that I am referring to the operations of several large book dealers whose "approval plans" or "standing order plans" are gaining a great deal of acceptance.

¹³*Ibid.*, pp. 106-107.

And I think that, for current publications, there is good reason why they should. The system depends on three things; first, a careful and detailed study by us of the needs of our library, but this should be done anyway. Second, careful coding of the titles available; this is the responsibility of the dealer or publisher and accuracy can be observed in the operation of the system, and *inaccuracy* would be reason enough to exclude them from the system. Finally, the bibliographical data base against which the profile is passed must be as large as possible. It can, I am sure, easily be larger than that body of bibliography which human bibliographers in many libraries could consistently cover, but it should be almost total. This complete coverage, however, is to the advantage of the dealer, since inclusion provides the possibility of selling more books and costs very little.

One might speculate on a number of other schemes. For instance, could a large out-of-print dealer use a similar profile to provide ready-made lists of interesting materials to customers? Certainly in some categories large amounts are spent on catalogs which, because of their general nature, often end up in the "circular file," when a selected list would not.

Or again, if such profiles—necessarily based on a standard system, and perhaps there's the rub—if such profiles were generally available and were in a computer data file which could be quickly searched, could we determine more quickly what nearest library we might expect to have a collection on a particular subject?

Of course, we're not out of the woods yet; we have all these fine publications pouring in, but we still have to pay for them. If we must, I am sure the detail we have gone into in analyzing our needs will not only give us a more accurate estimate of the appropriate costs, but a stronger argument to support the request.

Finally though, I admit we have left unanswered the unpopular (unpolitic?) question of, at what point have we bought the *optimum* amount of library material for the field of "X," so that the rest of the money can better be used for fixing pot-holes in the parking lot or raising the salary of the chairman of department "Y"? I do not have the answer—but I think we should find one. I am sure that a more detailed study of the material available in the various subject areas and of the needs of the departmental programs is a major step in the right direction.

Finally, let me end on a historical note, and this concerning the paying for library materials. Nowhere is there a nicer statement, I believe, concerning one method than that described by Richard De Bury, Cofferer, Treasurer of the Wardrobe, Archdeacon of Northampton, Prebendary of Lincoln, Sarum, and Lichfield, Keeper of the Privy Purse, Ambassador to the Vatican, Chaplain of the Papal Chapel, Dean of Wells, Bishop of Durham, High Chancellor of England, Treasurer, and book collector extraordinary:¹⁴

And indeed while we filled various offices to the victorious Prince and splendidly triumphant King of England, Edward the Third from the Conquest—whose reign may the Almighty long and peacefully continue—first those about his court, but then those concerning the public affairs of his kingdom, namely the offices of Chancellor and Treasurer, there was afforded to us, in consideration of the royal favour, easy access for the purpose of freely searching the retreats of books. In fact, the fame of our love of them had soon winged abroad everywhere, and we were reported to burn with such desire for books, and especially old ones, that it was more easy for any man to gain our favour by means of books than of money. Wherefore, since supported by the goodness of the aforesaid prince of worthy memory, we were able to requite a man well or ill, to benefit or injure mightily great as well as small, there flowed in, instead of presents and guerdons, and instead of gifts and jewels, soiled tracts and battered codices, gladsome alike to our eye and heart. . . . No wonder that when people saw that we were contented with gifts of this kind, they were anxious of their own accord to minister to our needs with those things that they were more willing to dispense with than the things they secured by ministering to our service. And in good will we strove so to forward their affairs that gain accrued to them, while justice suffered no disparagement.¹⁵

¹⁴Richard Aungerville (De Bury) *The Love of Books, the Philobiblon of Richard De Bury*, newly translated into English by E. C. Thomas (New York: Cooper Square Publishers, Inc. 1966), pp. ix-x.

¹⁵*Ibid.*, pp. 54-55.

library lecture number twenty-three

UNIVERSITY OF TENNESSEE LIBRARY, APRIL 20, 1971

By Arthur M. McAnally

Director of Libraries
The University of Oklahoma

Interlibrary Loan — Library Cooperation

The first mention of interlibrary loan by an American was made in 1876. Samuel S. Green, Librarian of the Worcester Public Library, suggested in a letter to the editor of the *Library Journal* that "It would add greatly to the usefulness of our reference libraries if an agreement should be made to lend books to each other for short periods of time. . . . If libraries were to agree to help one another in this way, much good would result." He went on to observe that he had heard a plan of this sort was in operation in Europe.

It was fitting that this forward-looking proposal be made in 1876, for that was a landmark year in American librarianship. The American Library Association was organized, the first library journal was begun, and the Dewey Decimal Classification system was published. Those new librarians in 1876 were enthusiastic, dedicated to a high moral purpose, and above all confident in their ability to bring books and libraries to the people of a great nation. A wonderful, virgin land lay before them, and they entered it with all the confidence of a Christian holding four acres.

That was a simple world in those days. There were in 1870 only 80,000 students in all the high schools of America, contrasted with some 18,000,000 today, and colleges and universities enrolled only 60,000 students whereas today they have over 8,000,000. Research was limited

in extent, and slow and easy-going. There was no push from business and industry, nor from the federal government; there were few graduate students around; and the emergence of specialized scientific societies with their proliferation of journals was yet to come. The publishing industry, therefore, was quite small and gentlemanly. The general educational and cultural level of the nation was relatively low. So these early library missionaries saw their task as challenging but simple.

SIGNS OF THINGS TO COME

However, though the age was simple, certain events of the decade were to have profound effects on the emerging profession in the years ahead. Most of these developments were technological, and it seems likely that they went unnoticed by librarians. But the small clouds did appear on the horizon.

The first of these inventions that were to affect librarianship profoundly occurred in France during the Franco-Prussian War of 1870-71. The city of Paris was besieged by the Germans; to communicate with the outside world, the Parisians developed miniature or micro film and photographed letters on it, which they then sent out strapped to the legs of carrier pigeons. However, it was to be some sixty years before this new device had an impact on the library and information world. Microtext and cheap copying were to become very important.

The second unnoticed event also was technological, the adoption of sulfite wood pulp paper for printing. The process had been invented in the 1860's and began to come into common use in the 1870's. Up to then, paper had been made of rags, and was expensive and frequently in short supply. Wood pulp paper was cheap and plentiful, and its adoption by the publishing industry opened the floodgates to publishing. Unfortunately, paper made by the sulfite process from wood pulp had one unsuspected flaw: it was not durable. Only some fifty years later did librarians discover that their wood pulp newspapers were disintegrating, and it was seventy-five years before they thought to look at their books printed on paper made from wood pulp. Then they found that the paper of nonfiction books published in 1900 had lost 96 per cent of its strength, and estimated that one and three-fourths billion pages were in danger. Only cooperative effort can solve this problem inherited from the 1870's.

A third technological innovation was the invention of the telephone by Alexander Graham Bell in 1876. He also developed a visiphone to

transmit images. Full utilization by the library world as a means to facilitate the sharing of resources may (or may not) still lie ahead.

The fourth technological development was to take place a few years later (1886) in the U. S. Bureau of the Census. A twenty-six year old named Hollerith, dismayed at manual processing of the mountains of Census data, invented a punched-card tabulating machine to do the work. Some sixty-five years later a similar machine was converted to operate electronically, again for the Census Bureau, in 1951, and called UNIVAC. Thus the world got its first electronic computing machine. The computer promises to revolutionize the world of information transfer, and the full impact of this invention on libraries is not yet known.

The year 1876 also saw the founding of the first true university in America. This was Johns Hopkins, complete with the first graduate college, and patterned closely after the German universities, which emphasized research and meticulous scholarship. This emphasis on research, in contrast to the teaching function, was to dominate the university. It made almost infinite demands for information—all that was known on a subject wherever it might be located physically—thereby reshaping the destiny of the university library. Demands were to prove so great that cooperation among libraries finally was recognized as essential. This overwhelming emphasis on research was to produce great collections, but also was to help produce student dissatisfaction and unrest ninety years later.

A sixth major event of the decade was the establishment of the legal right of the states to support public high schools, decided in the historic Kalamazoo case of 1874. Tremendous growth in public education ensued—some 18,000,000 students are enrolled nowadays in contrast to 80,000 in 1870—and there was a steady rise in the educational and cultural level of the American people. These educated people were going to require library services.

The last event to be mentioned, though undoubtedly there were others, was the beginning of subject specialization in America, perhaps signalled by the founding of a leading scientific society, the American Chemical Society, and its journal, begun in 1876. The day of the amateur or generalist in science was passing, and the era of specialization beginning. The scientist's work was obviously important to society, and he was impatient for the latest information; consequently the scientific

journal grew rapidly in importance and in numbers. Control over growing multitudes of books was to prove a difficult problem for librarians; the journal literature of science was to become baffling, and the provision of adequate methods of subject access was to prove almost impossible. There was just too much periodical literature which became increasingly specialized, and traditional library methodologies did not work well for journal articles. Probably nobody in 1876 could have dreamed of an almost insolvable problem coming from this fledgling field of science in the future. Dewey gave science only one-tenth of his classification space.

EMERGENCE OF THE COOPERATIVE CONCEPT

Even by the turn of the century there was no national interlibrary loan system. E. C. Richardson of Princeton, a man of stature and authority, was to urge it again to the profession in 1905, but librarians apparently were not yet ready. The reason probably was that many *still* worshipped at the feet of the god self-sufficiency. There may have been a few devils around in the form of faculty members urging them on. However, many library leaders in the larger university and public libraries believed that—given proper financial support, sufficient time to collect, and a little luck—*eventually* they could own anything in print that their graduate students or faculty could conceivably want, and even perhaps *eventually* obtain one copy of everything that had been printed in the world since the invention of printing about 1450. Consequently the drive to build resources was absolutely fantastic, from about 1900 clear down to the Depression and even later. Americans lived in a serene and confident world before World War I and before 1929. Those librarians did amass the greatest library collections in the world, for which we owe them a great debt of gratitude.

However, the desirability and indeed the necessity for library cooperation finally were recognized by all, leading eventually to the first A.L.A. Interlibrary Loan Code of 1917. This code was instituted partially in recognition of the need for such borrowing, partially as a courtesy, and partially in recognition of the interdependence of libraries. It was expected that in each library lending would tend to be balanced by borrowing, so that the costs of lending, and the inconvenience to a library's own patrons caused by the absence of materials away on loan would be balanced by offsetting advantages. To provide safeguards and to assure reasonable use, libraries agreed to certain limitations on what

could be requested on interlibrary loan and for whom materials might be borrowed. The code was revised occasionally. The primary purpose was to serve research. This system worked well for many years.

TOOLS OF INTERLIBRARY COOPERATION

Once the concept of the sharing of resources by interlibrary loan was accepted, the library profession set about with enormous vigor and enthusiasm to develop the tools to make the activity successful. Nearly all of the great cooperative developments in the library profession for the last fifty years have come from the efforts to improve the coverage of the literature and the efficacy of interlibrary lending, and librarians have become the most cooperation-minded (among themselves) of all the inhabitants of the world of information.

A catalog of cooperative activities in the library field is impressive indeed. First is interlibrary lending itself. Second is cooperative and centralized cataloging, which was undertaken first about 1900 by the Library of Congress to help reduce costs, foster standardization, and form the basis for uniform catalogs. Cooperative values were noted as a desirable by-product. Nearly all libraries used L. C. cards. In recent years, this centralized cataloging concept has been accepted in state public library systems, certain medical school libraries, state systems of higher education, and many voluntary associations. The latest scientific devices may be used. The most recent development in this field is MARC (the Machine Readable Catalog Copy project) now being developed by the Library of Congress. Implications of MARC are vast.

A multitude of bibliographies, union lists, and surveys of resources also were made to identify and locate copies of materials for interlibrary borrowing. Examples of these are Sabin's *Dictionary of Books Relating to America*, the national *Union List of Serials* first published in 1927, and R. B. Downs' *Resources of Southern Libraries*. They are very numerous especially in specific subjects. Publication of the catalogs of whole libraries, and of great special collections, also has been resumed recently, thanks to a technological breakthrough in printing costs. Of course library catalogs serve as location tools.

Union catalogs are one of the most logical and obvious cooperative endeavors undertaken to facilitate interlibrary borrowing. The greatest union catalog is that of the Library of Congress, begun in 1901, now including locations from all over the nation, and being published by new

processes. Many regional catalogs were produced in the 1930's, using free W. P. A. labor. Some regional union catalogs also are organized as regional bibliographical centers. MARC may revolutionize union catalog concepts. Currently efforts also are under way to develop computerized national serials data banks; the task is proving difficult.

Specialization in collecting has offered challenging possibilities of improvement in the diversity of resources available in an area or the nation, and could improve strengths for lending among groups of libraries. However, except for local agreements and a few national efforts such as the Farmington Plan and Public Law 480, specialization has not been well accepted in America. The Farmington Plan might be looked on more as a cooperative acquisitions project than specialization in collecting. Its success has been marginal.

Storage libraries and interlibrary centers promote the sharing of resources, especially the latter. The best known and most successful of these is the Center for Research Libraries (formerly Midwest Interlibrary Center) which is evolving towards the concept of acquiring and servicing less frequently used materials for its members, and also is tending to become national. It also provides participation in various expensive information projects, such as Census data on tape and foreign newspapers on film.

In the 1930's and 1940's, many cooperative photographic projects were undertaken by libraries, such as filming of newspapers, and the Short Title Catalog project to secure microfilm of all early British publications. These might be regarded as a kind of cooperative acquisitions project, but also were an interlibrary sharing of resources. Nowadays these activities have been taken over almost entirely by commercial firms.

Linking of libraries by teletype, leased telephone lines, and telefacsimile networks is growing in popularity and value as means of expediting interlibrary lending, except for the last. Numerous experiments have been made with telefacsimile, but all have been abandoned as too cumbersome and costly. Alternatives to telefacsimile may lie in the future. The federal government gave a strong impetus to state teletype networks and contracts in the 1960's.

Finally, several miscellaneous substitutes for interlibrary loan have been developed, usually among libraries in a limited region. These

include courier services, extension of borrowing privileges to the clienteles of related groups of libraries, telefacsimile, of course photocopy as a substitute; and perhaps even the exchange of duplicates, as through the U. S. Book Exchange, might be thought of in this way.

With all of these cooperative agreements, tools, and practices, the United States has the best facilities for interlibrary lending in the world. Sometimes it seems, to paraphrase the words of the song, "We've gone about as far as we kin go!" Of course this is not so. Our very success has produced creaking in the ancient machinery. Now the library profession is beginning to look at some basic new approaches.

INTERLIBRARY LOAN IN 1971

During the past twenty years interlibrary borrowing and lending have grown steadily in magnitude throughout the nation, under the pressures of an ever-growing flood of research and continued expansion of the population of information users. The increase in interlibrary loans has been phenomenal, and is still accelerating. In addition, improvements in the quality of education and in the intellectual interests of citizens have brought new dimensions of need. Originally conceived as a tool for research, now many people believe that the scope of interlibrary loans should be expanded to serve purposes of general information, teaching and learning, and recreational-avocational interests. The beginning of state systems, and the drafting of a very liberal proposed model interlibrary loan code for states, regions, and groups of libraries, in 1969, reflect this latter movement.

The Problem. The tremendous growth in interlibrary borrowing and lending has placed very severe strains on the existing system. Some university libraries, which now lend many times more than they borrow, are finding the growing burden increasingly onerous and indeed almost unbearable. Other libraries, which are principally borrowers, believe that their needs are legitimate yet are not being met, and exert continuing pressure to liberalize the system. Some believe that library resources of national significance and value thereby would be dissipated for small gain. A few fear that interlibrary borrowing may be substituted for basic collection building to meet local needs. Others assert that books are not chattels to be owned for the benefit of a few, but instead are bearers of the cultural heritage of our civilization and therefore should be made available to anyone who wants them. Some copyright owners are saying

that library ownership and lending are both conditional anyway. Clearly the existing system, which was adequate for simpler days and smaller needs, is in danger. In the national interest, solutions should be sought.

Facts for a Solution. It seems evident that the interlibrary loan system should be studied thoroughly with a view towards developing an improved, adequate, equitable system. The first step in such a study is to secure the factual data necessary for planning. Needed is information about present and possible future magnitude of interlibrary loans, characteristics of the activity, the costs of interlibrary loan, the costs of delays in providing materials, and the value of interlibrary loans. The Association of Research Libraries, with encouragement from the Interlibrary Loan Committee of the A. L. A. Reference Services Division, has sought and secured an N. S. F. grant for the purpose. The project is so vast, however, that only part of the study can be done with the funds available. The topics being investigated are costs and magnitude, with some information on characteristics of interlibrary borrowing and lending. Values and costs of delays will not be covered, nor will state systems. The problem in university libraries is being investigated first. Westat Research Inc., a research firm in Washington, D. C., was chosen to do the research and is now at work. This first project is supposed to be completed by September, 1971.

Magnitude. Nobody knows the extent of the interlibrary lending activity in the United States. In 1963-64, interlibrary loan transactions among academic libraries amounted to 796,000. Gordon Williams in 1968 estimated current borrowing of serials to be about 500,000 per year. However, interlibrary loans in just one well-developed state system (New York) were over 600,000 in 1968. As to rate of growth, Nelson Associates found that the growth rate of interlibrary loans in New York was 18% and 14% per year over a two year period. Williams estimated that with a national lending library for serials, serials loans would grow from 500,000 to 2,000,000 within five years.

Costs. Nobody knows what it costs to lend an item on interlibrary loan. Estimates have ranged all the way from \$2.00 to \$11.02. New York pays resource libraries \$2.00 for an unsuccessful effort, \$4.00 for a completed loan; whether or not this pays the actual costs no one knows. One of the large university libraries made a study last year and found that its interlibrary lending activity costs were about \$258,000 a year; some of this cost was recovered but such a burden cannot be tolerated much longer.

However, most of these cost data are questionable. Gordon Williams did investigate borrowing costs. As to the library costs in general, Purdue estimated in 1961 that library services to their undergraduates cost \$44.22 per student; to graduates, \$123.80; and to faculty, \$100.25. However, the study omitted some cost factors.

Miscellaneous Information. Again data may not be very accurate, but estimates have been made that journals account for about half of the national interlibrary lending activity. Sending photocopy in lieu of the original may account for 10 per cent of the total loans, though this percentage varies in special situations. Geographical proximity definitely seems to be a factor influencing where requests are sent. Failures to supply for various reasons have been reported at 10 to 35 per cent. As to concentration, Sarah Thomson found among academic libraries that 165 libraries accounted for nearly 80 per cent of all interlibrary borrowing and lending; nearly all had more than 100,000 volumes. This is considerable concentration, rather than dispersion. Delays of reasonable lengths of time do not seem to be objectionable, though this probably is not true in special libraries of business and industry where research is a full-time, high-pressure affair. In university and public groups research probably is a spasmodic and part-time activity rather than being pursued in linear sequence. Several investigators reported with surprise about the attitudes towards delays. This factor has militated against speedy but high-cost telefacsimile systems. Types of materials requested vary widely according to type of library making the request. Sarah Thomson found public library requests to be 75 per cent for books, 14 per cent for serials; academic library requests were 50 per cent for books and 30 per cent for serials; special libraries, 54 per cent for serials. However, E. B. Stanford found in the Minnesota experiment that 75 per cent of public library requests were for books, whereas academic library requests were 70 to 80 per cent for copies of articles. Other characteristics of materials that have been analyzed include subject, language, country of publication, and date of publication. The study now under way by Westat, Inc., for the Association of Research Libraries, should supply up-to-date and accurate information on most of these factors.

AIDS, ALLIES, AND ROADBLOCKS

Besides all of the cooperative tools and activities developed by librarians and others working in the information vineyard to facilitate

the identifying and locating of information wherever it may be, certain aids and allies should be noted. One of these, a technological development (Xerography), has proved a great boon, but at the same time has raised serious legal questions.

To cover aids first, the simplest of these is the interlibrary loan code and the multitude of tools that have been developed to make it work. Teletype has come into increasing use lately to speed up communication. It is beneficial, but required the stimulus of federal aid to begin to expand rapidly, at the state level. Librarians themselves apparently were not convinced that the cost of the teletype was worth the benefits gained. However, it is useful, and is good public relations. Telefacsimile has been tried many times and found wanting. Actually telefacsimile is rather old. Newspapers began using telefoto in the 1930's and the Library of Congress transmitted *Gone with the Wind* in two and one half minutes a quarter of a century ago, after having spent two weeks preparing the text for transmitting. The problems are several: costs are high, images are fuzzy, if transmitted long distances, and the using public does not seem willing to pay for it. Reasonable delays in interlibrary loan also have been found to be not as important in the user's eyes as librarians had thought. The biggest handicap is still that encountered by the Library of Congress earlier—it takes too long and costs too much to find and transmit the material page by page.

The most important of these aids is the electrostatic copier, such as Xerox. Jim Hodgson at Colorado State began to advocate the use of the electrostatic copier by libraries about 1950, when photography and photostats were in common use, but the early machines were bulky and awkward. Modern electrostatic copying machines are fast, simple to operate, and above all, cheap. The device is used heavily as a substitute for interlibrary lending of the original, especially when only an article or excerpt is needed. Curiously, only about 10 per cent of interlibrary transactions involve Xerox copies, which seems odd. The percentage certainly should be higher. The principal deterrent is still cost, apparently. One new interlibrary use of Xerox has emerged in these troubled times—to replace pages cut or torn from books by the socially irresponsible. Unhappily, mutilation is nationwide and severe. Xerox also is used to make and lend a copy of a fragile or rare item. A major use of cheap copies is to supply to a user, under the so-called gentleman's agreement with publishers, a copy for his special use. One estimate is that three billion pages would be copied in 1969. Publishers have

become restive, so that legal questions about the ownership of information are now being raised.

Micro-text publishing is a library ally. Re-issuing cheaply materials that are out-of-print helps meet some of the demands of new universities and emerging nations trying to build library collections. The stock of older materials is insufficient for these great demands from new collectors. By helping meet the demand, microtext publishers relieve interlibrary loan pressures. They issue in 3" x 5" photographs, 6" x 9" opaque cards, rolls of microfilm, and sheets or fiche of microfilm. The principal obstacle to wider use is reader resistance. Almost nobody likes to use it, and many will not use it. Most micro-text projects cover lots of material—like the early cooperative projects undertaken by librarians. Microtext may have a greater future if allied with a computer. It is economical, not bulky, and in greater reductions can cover vast amounts of material in small space.

Reprint publishing also helps relieve pressure on the interlibrary loan system from new libraries and new nations. Reprinting has become big business, for the demand is very great. Inexpensive copying methods are used by the publishers, but their prices seem extraordinarily high. However, they have made vast quantities of out-of-print journals, other serials, and books available once again, thereby lessening interlibrary loan problems.

The copyflo process, in which the original is microfilmed, then the film run through a high-speed printer, can make any book available in the usual codex format. The cost is five cents a page if not already filmed. One firm has the best film collection, University Microfilms, owned by Xerox, but the routine is slow. It is basically a single-copy process—succeeding copies cost as much as the original copy, less the filming charge. This process should fill in between the regular publishers and the bulk reprinting houses—subject to limitations of copyright. So this process too helps to reduce the need for interlibrary borrowing.

Copyright problems have come to the front recently. In both Britain and the United States, publishers are seeking a stronger and, to them, more beneficial copyright law. In both nations they would like to have a royalty paid each time a copyrighted library book or journal is used, and they question the gentleman's agreement on fair use copying. Journal publishers seem to be having financial problems, some of which they attribute to copying. Journals may be the first form of traditional

publishing to decline and give way to newer methodologies some day, but that time still seems distant. One journal publisher has filed a five million dollar suit against the National Library of Medicine for its copying in lieu of lending. The suit is pending. The lending of copyrighted materials on interlibrary loan might be forbidden in pending copyright law revisions, if the item is in print. This would affect public library systems most, but also would be troublesome for all libraries.

The information service people, who are trying to develop centralized systems utilizing computers, also are allies of libraries in the information exchange process. So far they are working primarily on automated bibliography, for automated full text is still beyond capabilities of present-day computers. MARC and the National Serials Data Bank projects are general; most activities are concentrated in more limited fields. The two types are mission-oriented projects, which are chiefly governmental, and discipline-oriented projects such as that of the American Chemical Society. There are many of these.

THE FUTURE

The following speculations about the future are personal, and should not be construed as reflecting the views of any association or of the two interlibrary loan committees in which the author holds membership. They should be considered only as one librarian's views. In looking ahead, the near future seems reasonably clear, but the farther ahead we try to look the more fuzzy and uncertain it all becomes.

Reimbursing for Costs of Interlibrary Loans. Almost immediately, some form of payment for interlibrary loans is going to have to be worked out to provide relief to the larger libraries of the country. Otherwise some of them may have to cease lending by interlibrary loan, for there are few so rich as to carry a burden of a quarter of a million dollars per year. In most difficulty are the great privately supported university libraries and the large endowed special libraries. The current cost study under the sponsorship of the Association of Research Libraries should provide sound formulas for estimating costs accurately.

The situation is so acute for many large libraries that charges may have to be instituted immediately. In the long run, it is hoped that the federal government might assume these costs, either directly or through the states, supporting interlibrary loan as being for the welfare of society. Unfortunately, the value of an interlibrary loan varies according

to user, purpose, effectiveness, and other factors, and is proving very difficult to establish. If values could be found, expressed in terms of dollars, then the great bargain that interlibrary loan represents would be more appealing to the government.

National Lending Libraries. One of the possibilities for meeting part of the vast and growing interlibrary loan burden is the establishment of national lending libraries. The subject is arousing keen interest right now. Great Britain has two successful ones in operation, the National Lending Library for Science and Technology (The Boston Spa Library), serving the sciences, and the National Central Library serving primarily the public library system. The latter relies heavily on referrals. Gordon Williams recently completed a study on the costs of owning versus the costs of borrowing serials in this country. What works in England might not work in the United States because of greater distances and other factors. But the concept undoubtedly will be explored further by someone. The cloud of copyright matters hangs threateningly over this concept.

Micropublishing. The possibilities in publication in ultra-high-reduction microtext could affect interlibrary cooperation and information network planning. Micropublishing is already a \$25,000,000 business and growing 10 to 15 per cent a year. However, there are revolutionary aspects to this vehicle. Fremont Rider proposed in 1944 that libraries consist entirely of microcards filed in card catalogs; anyone who wanted the text would just take a copy from the card catalog, which would then be replaced. Verner Clapp in 1963 said that at 200 diameter reduction the prints for a library of a million 250-page books would cost \$18,750. A 1968 study by Hays for RAND and entitled *A Billion Books for Education in America and the World: A Proposal* estimated that a thousand million-volume libraries could be founded for \$200,000 a library, for new universities and developing nations. Back in 1963, a survey, *Automation and the Library of Congress*, discussed the future practicality and desirability of microstorage allied with computerized bibliography, with consoles for access. One frustrating aspect of ideas like this is that movement and decisions seem to come very slowly indeed. Two limiting factors are user resistance to microtext, and present copyright laws.

National Specialization Collecting. Subject or other specialization according to an agreed-on plan do not seem likely to emerge. Each library has to serve its own clientele first. Only with national encourage-

ment and financial backing could specialization plans succeed, and even then there may be better ways to reach the goal.

Networks of Libraries. Library networks are numerous and will continue to expand in variety and number at least for a time. Examples are networks linked together by service agreements or contracts for the mutual sharing of information, networks to provide computerized centralized processing, and other kinds. They are linked by teletype, courier services, telefacsimile, short wave, etc. However, networks of libraries may not prove to be the best path in the long run to the goal of information for all who need it.

Information Networks. The increasing volume of recorded information, veritably an overwhelming flood, is steadily destroying the ability of the scholar to keep abreast of developments in his own field, and the capacity of libraries to acquire and provide subject access to knowledge. The solution may be the computerized information network. Research and experiment in this domain are proceeding at a feverish pace. The difficulties are enormous, the costs tremendous, and progress slow. Nevertheless a national information network with interlocking federal and private components is slowly evolving.

Each discipline apparently must have its own network. Many different agencies are involved, such as the American Chemical Society, the American Institute of Physics, and the Bio-Sciences Information Services of Biological Abstracts. A Summer Study on Information Networks at Colorado in 1966 inventoried over twenty such disciplinary efforts, plus numerous others usually mission-oriented in the federal government.

One of the best studies of the information problem in one field, by the Committee on Research in the Life Sciences, of the National Academy of Sciences, gives a fine assessment of the present situation and the probable future pattern of information storage and transfer in one special field. It foresees in time the demise of the scientific journal as a medium of communication. However, it also sees developments as so slow that it urges major federal aid to research libraries for the next twenty-five years.

Sweeping statements to the general public about the future can do much damage to the world of libraries and information for the next twenty-five years. An example is the prediction in a throwaway booklet sent out by the Bell Telephone System with monthly bills: "By the year

2000, information or expert advice stored in centralized computers on any subject known to man should be available to anyone who is able to dial a telephone." Arnold Gingrich, publisher of *Esquire*, stated in 1969 that a home printer is practicable now. Attached to the home TV set and operating during presently wasted intervals on the tube, it could print newspapers, journals, or books. Incidentally, competition among the communications giants for primacy in this coming field is intense, and a factor affecting progress. Competitors include, besides Bell Telephone, the TV chains, Xerox, IBM, and satellites.

Clearly it behooves librarians to enlarge their horizons, probably by adopting information theory approaches. Information science has certain weaknesses, such as the inability to evaluate quality, to distinguish between unimportant and redundant information which may constitute 90 per cent of the flood, but it does provide theoretical background and bases for vision and innovation. Our information world is going to change, and we must change too. Interlibrary sharing is very valuable and will continue to be for a long time, and it should be improved. But better methods may lie somewhere ahead.

In conclusion, better perspective can be gained when interlibrary loan is examined not as an isolated phenomenon, but instead is looked at as just one part of the larger whole of the world of information, or more specifically, as part of the process of transfer of information. Examined in this light, it can be seen that in the early days interlibrary loan was called on to meet simple and limited needs, and probably was quite satisfactory. There was not even a national code until some forty years after the American Library Association was founded in 1876, and the activity was on a modest scale until the beginning of World War II.

The pace of research, and consequently of publication, was quite limited in 1900, though both grew steadily but moderately up to World War II. Interlibrary loan was created originally to serve research scholars, and there were not very many of them. Furthermore, universities and the great public libraries tried very hard to build collections adequate to meet their clients' needs, and they were fairly successful. Interlibrary loan supplied only the last few items that the scholar needed, rarely more than perhaps five per cent of his sources.

Nowadays, however, we are asking a lot more of interlibrary loan. Conditions began to change rapidly with the onset of World War II. The amount of knowledge in the world doubled between 1900 and 1950, then

doubled again, some say, between 1950 and 1965. Make it 1970, and this seems likely. The National Academy of Sciences' study stated that no man in the life sciences has been able to keep up with the pertinent new material appearing in his own limited field of research, since about 1955. Research libraries are finding it more and more difficult to provide the 90 to 95 per cent of their users' needs as they formerly did. Technically, they might be able to; financially they increasingly cannot. The vast quantities of recorded information have become almost unmanageable.

Another factor is the great increase in the number of universities and research agencies, both in older countries and also in the newer nations of the world. These new university libraries cannot hope to obtain great collections of older printed materials in their original form—for one thing, there just were not enough copies printed in the old days to meet today's greatly expanded needs. Therefore, they may tend to depend on borrowing more than the older universities do. Evidence of this trend is provided by the studies of Buckland in England and Williams in the United States. Significantly, both men developed formulas utilizing economic factors to indicate what should be borrowed and what should be owned.

Again, a better-educated public wants more knowledge. The new mood, which tends to emphasize human rights over property rights, has led some to say that books are part of the cultural heritage of everyman, and that the public is entitled to access to books and journals wherever they may be located. This attitude may grow.

All of these pressures are calling for action. Yet librarians should recognize that we could be too successful in establishing bigger and better networks of libraries, and depending more on borrowing instead of buying, for there is danger that in time this might begin to affect adversely the role of our traditional publishing industry and the rights of authors in our society. There probably is a happy middle ground, but no one knows where it is and it may be changing anyway. The growing rate of publishing does exert more and more pressure for libraries to be more selective and limit their own rate of growth. The sword is double-edged.

For the next twenty-five years we should not expect some *deus ex machina* to descend from the heavens, or some genie from a bottle to appear, to resolve our dilemmas. We have a world of superabundant information on one hand and an ever-growing world of impatient

consumers of information on the other. Instead, we should continue diligently and with ingenuity to improve our interlibrary sharing of resources, while recognizing that this is only one part of the answer and that all answers are interlocking. Our most urgent need at present is to develop some kind of an orderly and systematic national system which will distribute the interlibrary load more equitably and meet the information needs of all the people more effectively. We cannot afford to penalize the progress of knowledge and information-seeking for the next twenty-five years by doing nothing.

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library lecture number twenty-four

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Continuing Education for Librarians:

The Role of the Learner*

"No one will live all his life in the world into which he was born, and no one will die in the world in which he worked in his maturity."¹ Margaret Mead thus encapsulated the concept of the speed of change in our society in personal terms. For each of us, an individual lifetime spans a universe of rapidly metamorphosing worlds.

The library world has not escaped the experience of the more general universe. Whether you began your career in 1925 or in 1965, 1972 encompasses a different library world. Which change has touched you most intimately? The information explosion? The escalation of government involvement with libraries? The technological revolution? Or merely the evolution of participating management? Perhaps the question should be phrased in "mod" terms. Has your world been traumatized by MEDLARS, MARC, FORTRAN, or ACONDA?

The effect of all this change in the environment in which we practice our skills is to outpace—and thus outdate—the skills themselves.

*I am indebted for bibliographic assistance in the preparation of this paper to Marilyn Adams and Veronica Pantelidis, both doctoral students at Florida State University.

¹Margaret Mead, "Thinking Ahead: Why is Education Obsolete?" *Harvard Business Review* 36 (November-December 1958), 34.

Dorothy Sinclair pointed this out: "Yesterday's excellence becomes today's minimum adequacy; yesterday's minimum adequacy becomes today's unacceptable performance."² In short, those who cannot change do not survive; and the name of the inability to change, the social disease endemic in the environment of change, was named by Alvin Toffler "future shock."³

There is virtually no disagreement that we, as librarians, have responsibility for our own little corner of the general predicament. Quantities of prose attest to our concern. We have even provided ourselves with a generic name for the solution to the problem: continuing education. As the specifics of continuing education come up for discussion, however, much of the agreement dissolves. Some claim the design for the desired continuing education is the responsibility of our professional organizations; others claim it to be the burden of the library schools. Some opt for individual library responsibility; others prefer involvement at the federal government level. Still others cry aloud for *ad hoc* bodies to coalesce the divergencies. At least one such effort to incorporate a variety of input has postulated a rationale and suggested policies and potential programs, as well as made recommendations for matching action to design.⁴ [I refer to the stimulating July 1971 issue of *Library Trends* prepared by the Staff Development Committee of the ALA Library Administration Division.]

There is evidence that each of these components takes its responsibility seriously. The Medical Library Association began its Continuing Education Seminars in 1957, and it has experimented with a variety of presentation formats from one day to one week, at both the national and the regional levels.⁵ The Association of American Law Libraries has designed four basic courses, each in two presentation modes, one appropriate for less-experienced law librarians, the other for the more-experienced. These courses are rotated in a four-year sequence, one

²Dorothy M. Sinclair, "The Next Ten Years of Reference Service," *ALA Bulletin* 62 (January, 1968), 58.

³Alvin Toffler, *Future Shock* (N. Y.: Random House, 1970).

⁴"Personal Development and Continuing Education in Libraries," ed. Elizabeth Stone, *Library Trends* 20 (July 1971).

⁵Initially the seminars were called Refresher Courses. The first Committee on Continuing Education was appointed for 1962/63. Estelle Brodman, and others "Continuing Education of Medical Librarians," [Introduction to a Panel Report] *Medical Library Association Bulletin* 51 (July, 1963), 354-356.

course being offered each year at the time of the annual meeting of the Association.⁶ The American Library Association, through its sub-units, has utilized pre- and post-conference seminars and institutes, as well as its now-familiar conference-within-a-conference format.⁷ Other national and regional associations imitate these basic designs.

Library schools have followed suit with conferences, seminars, and institutes scaled from one day to a year or more in length, as appropriate for a wide variety of continuing education objectives. Non-library schools have offered additional variety with continuing education opportunities in library-related skills and bodies of knowledge.⁸ Because of the degree-granting capability of educational institutions and the value placed on additional degrees by some library employers, a sizeable number of the formal offerings of universities are accompanied by degree options.⁹ To be completely honest, one would have to include in this category master's and doctoral degree programs in various subject and skill disciplines, as well as the specialist, advanced master's and doctoral programs in library science, *per se*.

The efforts of individual libraries to provide continuing education for staff members are not as visible as the efforts of national associations and the university community. State library association bulletins and individual staff association publications do give a picture, however, of large amounts of such activity. Occasionally, when some innovation such as oral history is the crux of the matter, or when cooperation transcends its usual bounds, reports appear in the national library press.¹⁰ On balance, it seems fair to say that the efforts are widespread, and that large numbers of people appear to be involved, at least minimally.

⁶Edwin Schroeder, Co-chairman, 1971 AALL Institute, to Martha Jane K. Zachert, April 4, 1972.

⁷News notes and reports in *ALA Bulletin* and *American Libraries*; announcements of annual conferences.

⁸Although evidence can be deduced from the announcements and lists of offerings in current journals and in *The Bowker Annual* (N.Y.: Bowker, annual), more precise information is likely to be found in the direct mail ads that flood the mailbox of any librarian whose name appears in a directory.

⁹For a recent analysis of the response of academic librarians, see Anita R. Schiller, *Characteristics of Professional Personnel in College and University Libraries* (Springfield, Illinois: Illinois State Library, 1969), esp. 40-41. (Research Series No. 16).

¹⁰See, for example, Gould Colman, "Making Library History," *The Journal of Library History* 7 (April 1972), 130-140; Robert Lee, Chairman, and others, *A Plan for Developing a Regional Program of Continuing Education for Library Personnel in the Western States* (Boulder, Colorado: Western Interstate Commission for Higher Education, 1969).

The federal government is interested in continuing education because of its concern for federal librarians, and because of the need to train local librarians to serve as interface with federal information systems. As an example of the first instance, the Federal Library Committee and the U. S. Office of Education undertook, in 1968, to identify the specific educational needs of federal librarians and to provide learning experiences to fill these needs. A research team at The Catholic University of America conducted a pioneer survey among federal librarians all over the country.¹¹ As a result, three courses have been designed to meet the most urgent needs identified in the survey.¹² These courses have been offered in both degree and non-degree program formats in the Washington area and are available for use elsewhere. The federal establishment has not limited its interest to continuing education for its own employees, but has recognized that, if the potential inherent in national information systems is to be realized, much depends on the capability of local librarians to utilize the technology. The National Library of Medicine is one federal agency that trains local library personnel in the skills requisite to participation in its own system. From 1964 to 1970 NLM trained local personnel of the Regional Medical Libraries to use the MEDLARS system; and it has been training for use of the MEDLINE system since 1971.¹³ In both of these instances, federal agencies have provided useful prototype formats for continuing education.

Nevertheless, the recitation of the commitment—and the achievements—of various components of the library is not intended to imply

¹¹James J. Kortendick and Elizabeth W. Stone, *Job Dimensions and Educational Needs in Librarianship* (Chicago: American Library Association, 1971).

¹²Joseph Becker and Josephine S. Pulsifer, *Application of Computer Technology to Library Processes* (Washington: The Catholic University of America, 1971), 2v. v.1, *Syllabus*; v. 2, *Teacher's Guide*. Charles H. Goodman and Elizabeth W. Stone, *Human Resources in the Library System* (Washington: The Catholic University of America, 1971), 2v. v.1, *Study Guide*; v.2, *Leader's Handbook* (v.3 in press, *Leader's Handbook: Aids*). Martha Jane K. Zachert, *The Governmental Library Simulation for the Study of Administration of a Special Library* (Washington: The Catholic University of America, 1971), 3v. v.1, *The Federal Library Model*; v.2, *Participant's Resource-Log*; v.3, *Director's Guide*. (All were completed under U.S.H.E.W. Office of Education Grant No.: OEG-O-080731-4604(095) Project: 8-0731).

¹³Personal communication, Joseph Leiter, Associate Director for Library Operations, National Library of Medicine, to Martha Jane K. Zachert, March 31, 1972. This training is available only to persons who are actively engaged in MEDLINE service in a Regional Medical Library, thus assuring a highly qualified, preselected audience for the concentrated technical training.

that there is coordination in either planning or implementation of accepted concepts of continuing education. Rather, as a series of commentators has pointed out, present efforts are highly fragmented. Even more significant, educationally speaking, is the fact that the totality "lacks direction, sequence and culmination."¹⁴

Perhaps the most cogent reason that there has been no overall planning for continuing education—and thus, no coordination—is that there has been so little systematic planning for the *basic* professional education. Psychologists and curriculum planners have carried out research on the process of curriculum development with an increasing acceleration over the last twenty years; yet little of what they have learned appears to be used in planning library science education at either the basic professional level or in continuing education.¹⁵ It is not, however, a criticism of the past that concerns us in this paper, nor even the examination of that part of the recent cumulation of theory that is relevant to continuing education as a totality. Rather, I wish to isolate, temporarily, one element, one component in the total library educational system, and to examine that element in some detail in relation to continuing education.

For some years educators have conceptualized education as a system of interacting components, an important one of which is the learner. Many psychologists have studied how children learn. The names of these psychologists, and their theories, are familiar to most teachers. More recently, other psychologists have begun to study in detail how adults learn; the names of these psychologists and their theories are not so universally well-known. What they are discovering, however, is of crucial importance to the success of learning situations designed for adults, for this new information is revising long held views about adults as learners. Since it is inherent in the concept of an interactive system that

¹⁴Mary Gaver, "Continuing Education to Meet the Personalized Criteria of Librarians," *Library Trends* 20 (July 1971), 141-142; see also earlier statements such as Samuel Rothstein, "Nobody's Baby: A Brief Sermon on Continuing Professional Education," *Library Journal* 90 (May 15, 1965), 2226-2227; and Elizabeth Stone, *Factors Related to the Professional Development of Librarians* (Metuchen, N.J.: Scarecrow Press, 1969).

¹⁵Consider, for example, the implications of the fact that standard techniques for curriculum planning were being *introduced* to library school faculty in 1970. See *Education for Librarianship: The Design of the Curriculum of Library Schools*, ed. Herbert Goldhor (Urbana: University of Illinois, Graduate School of Library Science, 1971), especially the papers by James W. Ramey, "General Principles of Curriculum Construction," and Martha Jane K. Zachert, "Preparation for Special Librarianship."

change in one part changes the whole, planners and teachers involved in continuing education for librarians need to be thoroughly conversant with this recent research in order to assess its implications for their efforts. Library science education has traditionally conceived of its students as children. Inherited curricula and teaching methods reflect this orientation, which has not yet been seriously challenged either at the level of basic professional education or at the level of continuing education. The most pregnant generalization from adult learning research is that adults learn differently than children; the inescapable conclusion is that education for adults must be planned and implemented differently than education for children. Acceptance of this generalization augurs for change.

The ultimate success or failure of the efforts for continuing education may well rest not on how perceptively the planners and the teachers understand the great perplexing problems of librarianship, but on their perception of how adults learn. Administrators also have a share in the responsibility. As a group they have been slow to accept the relationship between motivation and participation in continuing education, and slow to provide the requisite motivation. To me the almost total lack of perception about how adults learn is the greatest single flaw in continuing education today, pervading the ranks of planners, teachers, and library administrators alike. It is because of this lack of perception that I am postulating a new role for learners. Instead of the inert, childlike posture of the past, I am suggesting a dynamic role, at once purposive, aggressive, and self-fulfilling. It is a role that will move the cause and the reality of continuing education for librarians forward. I see this role as purposive because it is a preventative against future shock. I see it also as potentially aggressive, marked by the initiative and driving force so often lacking in prior continuing education efforts; and as self-fulfilling, for the learners as they participate in the process will be the beneficiaries. I see the role of the learner as essentially an individual one, though recognizing that much of the vital force I predict from it will devolve from its corporate thrust. Because of the significance of having each individual learner understand his new role, I would like to summarize, in a very selective way, some of the findings of recent research about adult learning and explore briefly their implications in this context.

Not only do adults learn differently than children, the differences are of three predictable varieties: physiological, psychological, and social.

All are important in understanding adult learners. It is hardly news that with increasing age come physiological problems: impairment of hearing and seeing, and likelihood of chronic illness. It may not be obvious to each individual that increasing age also brings a slowing of one's reaction time; but the fact is, nevertheless, important in a learning situation. Illness or sensory loss affect the ability to perceive accurately, and slowing of reaction speed influences both response and performance.¹⁶ All of which suggests that these physical characteristics of the learners must be matched by concern for the physical characteristics of the learning arena, as well as by the pace set for the learning.

On the plus side, the adult's interest span is considerably longer than that of the child. Indeed, the physiological fact that he is older gives the adult a different attitude toward time generally. A child normally thinks of time vaguely and of its termination for himself not at all. He understands future time only in very near terms and he lacks patience to plan far ahead and to work over long periods of time toward a goal.¹⁷ In this, as in some other characteristics, it is impossible to separate the physiological facts from their concomitant psychological attitudes. Psychologists tell us that as an adult becomes increasingly aware of the limitations of his own time-span, he views his progress or lack of it in direct relation to time. "Goals may become specific; activities toward those goals become more significant in terms of day-by-day importance; or orientation and self evaluation become more realistic."¹⁸ Although self-awareness of time as a factor in continuing education has not been thoroughly studied, the research that has been done suggests it is one of the most pervasive of all factors. "It is the hidden item," claims one researcher, "in many decisions to learn or not learn, as well as what to learn when the decision to study is made."¹⁹

Psychologists have also identified several clusters of interrelated psychological and social forces, all of which affect an adult's attitude toward learning and his ability to learn. Some of these factors affect the

¹⁶Howard Y. McCluskey, "The Relevance of Psychology for Adult Education," in Gale Jensen, A.A. Liveright and Wilbur Hallenbeck, eds. *Adult Education* (Washington: Adult Education Association of the U.S.A., 1964), 158.

¹⁷Paul Bergevin, *A Philosophy for Adult Education* (N.Y.: The Seabury Press, 1967), 121.

¹⁸Sidney L. Pressey and Raymond G. Kuhlen, *Psychological Development through the Life Span* (N.Y.: Harper and Brothers, 1957), 303.

¹⁹McCluskey, *op. cit.*, 162.

adult as an individual and constitute what he brings to the learning process; other factors affect the adult as a member of the group and determine what happens to him in that group. I propose to look at three such clusters.

“Differentiation” is the term used to identify the first of these pervasive concepts. The idea stems from the fact that the adult has increasing numbers of experiences as he moves from childhood to adulthood, and that the variety of his experiences becomes greater as he grows older. As a result each adult exhibits a growing differentiation in his abilities, skills, attitudes and interests. Psychologists conclude that this complex development “has a bearing on changes in adult abilities with age. Instead of viewing adult ability as a single dimension, as most tests of intelligence imply, we should think of adult ability as a profile or a series of variables, on some of which the adult performs poorly and on others well.”²⁰

The implication of the concept of differentiation is that teachers should not expect adult students to display the same subsets of learning capabilities as do children; and adults should not become disappointed in themselves when they discover that some of their own learning ability is diminishing. If adult learners make the same demands on themselves as they did when they were college students, they may well become frustrated and resist any urge to participate in further learning. If, on the other hand, adult learners understand that, although in some ways their learning capabilities are diminishing, *in other ways they are increasing*, then they put themselves in a more optimistic, indeed a more realistic, attitude to continue learning. They will also have put themselves in a better position to participate in planning their own continuing education. Educators, of course, will benefit from a more realistic look at the ways in which adult learning abilities change with increasing age. They should be particularly warned that intelligence tests given to adults at different ages do not measure the same abilities, and that existing tests do not clearly delineate the various subsets of learning capability supposedly measured in a single test. It would be helpful if the psychologists could tell us exactly which faculties are diminished and which are augmented as we age, but thus far the research has apparently not yielded definitive results. It has shown conclusively, however, that the continuous use of learning skills serves to preserve them, whereas

²⁰*Ibid.*, 156-157.

lengthy periods of non-use hasten their disintegration. In addition, the verbal skill so important to intellectual occupations has been consistently shown to increase, rather than decline, with age.²¹ Future research will undoubtedly tell us more about differentiation and how both learner and teacher can utilize this concept to the learner's advantage.

A second pervasive concept of adult psychology is labelled "set." This concept describes an individual's personal stance toward behavior, including learning behavior. It is the result of habit, conditioning, interpretation of experience and cognitive process. Habit is behavior repeated until it becomes the behavior of least effort. Conditioning is the modification effect of environmental influences upon behavior. Habit and conditioning are combinations of internal and external influences. Adults characteristically go beyond habit and conditioning to internalize their experiences; they interpret experiences differently than do children, and they encumber their interpretations with emotional overtones. The habits and the conditioning of prior learning help to determine the set of an individual in his approach to new experiences. Furthermore, his expectations will to a large extent be dependent on the emotional valuation he places on earlier experiences in his interpretation of them. Each of these factors has a potentially positive or negative effect on the individual's present endeavor. The adult's cognitive processes also play a part in his learning behavior, assisting him in selecting responses to his experiences that will build on the past and utilize it in organizing and assimilating new learning. All four factors—habit, conditioning, interpretation of experience and cognitive process—interact to produce set.²²

Virtually all adults have some negative attitudes toward placing themselves, even temporarily, in the role of student. Understanding of the concept of set can help an adult assess its influence in his attitude and in his behavior. Habits are not necessarily "best" behavior, merely the most economical in terms of least new effort. Habits may be hard to break, but recognition that change is possible by revaluation of experience and by cognitive process makes change easier. On the other hand, cognitive set may reduce the individual's openness to new ideas and may inhibit his ability to perceive alternatives, just as negative conditioning and negative emotional overtones left over from childhood may pre-

²¹*Ibid.*, 168.

²²Bergevin, *op. cit.*, 115-118; McCluskey, *op. cit.*, 158-159.

condition an individual against adult learning experiences. Understanding the concept of set prepares the student to deal with his own, and cautions the teacher to manage learning situations with due allowance for this characteristic of adult students.²³

"Integrative response" is the third concept that comprises a cluster of forces that together exert decisive influence on the adult's ability to learn. Consider again the increasing length of each individual's life; consider also the increasing numbers and varieties of his experiences. In both the career and the personal realm many experiences are routine; others, however, are unique and accompanied by risk and pressure. The net effect of numbers and of significance produced by these experiences is one of continuous battering of the individual with stimuli. The integrative response is the constructive response in this situation. Adults have learned how to discriminate, to filter out, to select from the mass. The term "integrative response" implies that the adult selects only what he can incorporate into his existing intellectual configurations, only what is, to him "relevant." The process is never complete; but the better the adult understands it, and the more he is able to identify gaps in his prior learning, the better his chances for making integrative responses to new educational experiences. Part of the teacher's responsibility is to facilitate integrative response and to prevent lapse into easier responses such as stereotyped thinking or withdrawal from response altogether.²⁴

Surely it is implicit even in this brief summary of the psychological concepts of differentiation, set and integrative response that the adult's ability to learn, though not invulnerable, is nonetheless persistent. Though age brings the probability of infirmity, decline in speed does not mean decline in total ability to learn. Set, which can serve as resistance armor, can serve alternately as its own entering wedge when it is understood and dealt with. And integrative response offers the means to flesh out the hard-won residual framework of previous experience. Adults *can* learn . . . and learn . . . and learn.

This summary has not exhausted the psychologist's knowledge of the learning of adults as individuals; nevertheless, let us turn in the same selective way to some sociopsychological factors of group process that affect the learning of adults as members of groups. In so doing I am emphasizing the instructional group as the prevailing mode of con-

²³*Ibid.*

²⁴McCluskey, *op. cit.*, 159-160.

tinuing education, perhaps more than can be justified in the contemporary atmosphere of emphasis on individualized learning in education generally.²⁵ My reasons are pragmatic. Virtually all continuing education efforts in librarianship are in terms of groups. Very little instruction *per se* is available except to groups; virtually no formal material for the direction of individual study is available. Whether for economic or philosophic reasons, group instruction predominates and, unless there are specific and vigorous efforts to the contrary, group instruction is likely to be our mode for some time to come. To make the most of it, therefore, let us seek to understand how adults react to group process.

One of our most unfortunate hang-ups in continuing education for librarianship, as I have indicated, is that we treat adults as if they were children. We model group learning situations on those used for many years in the public schools: chairs in neat rows, facing front; authority figure at the podium, "teaching"; information flowing from teacher's notebook into student's notebook—through nobody's head, as the saying goes. For these learning experiences, some authority figure has decided what is to be "offered" in a course or a curriculum; some authority figure "gives" the instruction in a lecture or a teacher-oriented "discussion"; conditioned students take notes as fast as they can write, getting down as many of the teacher's exact words as possible; they memorize these notes if there's to be a test or ignore them now instead of later if the teacher announces no test. True, not all curricula are thus derived, not all classrooms thus conducted. The picture is overdrawn to emphasize the point, but—think back over the continuing education sessions you've attended and be honest—how much is it overdrawn?

The social psychologists demonstrate quite convincingly that, for adults, it is interaction that produces learning; interaction in relation to learner-identified problems; interaction based on the cumulation of individual experience represented in the learning group; interaction evoked by a peer who is himself in a learning/teaching stance. In fact, the social psychologists have identified five separate types of interactions that are present in adult instructional groups. The most significant are problem-solving interactions, the interactions that serve to develop the new behaviors which are the object of the instruction. To ex-

²⁵For an overview of contemporary thinking, see Virgil M. Howes, *Individualization of Instruction: A Teaching Strategy* (N.Y.: Macmillan, 1970).

perience these interactions is to learn. The remaining types of interactions are ones which either support or inhibit the accomplishment of the first, and thus the intended learning itself. There are four such influencing interactions: the decision-making interactions—those that contribute to the management of the learning experience; the power interactions—those intended by one group member to influence other group members to behave in certain ways; the friendship interactions—those that permit a group member to express privately his personal insights related to the instructional experience; and the social acceptance interactions—those that evolve from each group member's attempts to evaluate the other group members in terms of risk to himself.²⁶

Participation in these learning and supportive interactions is molded by the social system in which adults move as well as by their personality needs. American culture places high value on knowledge, skill, innovation, and success. Adults within our social system feel pressure to achieve prestige, and to enhance their lives with success. This means continually increasing one's competence. The individual feels a strong need to develop, to achieve new triumphs, to demonstrate perennially his social worth.²⁷ Most professional people perceive continuing education as a practical means to increase their knowledge, to extend their skills, and to keep abreast of innovations. They enter the learning experience with goals related to these expected benefits and they are disappointed if they feel these goals have not been met. Other people have more socially oriented expectations, for in our society adults also feel an intense need to establish successful interpersonal relationships.²⁸ It is interpersonal activity among people of similar interests that fulfills their needs, and the lack of such activity in the group learning experience leaves them frustrated.²⁹ Most, whether primarily motivated by intellectual or social goals, are concerned with maintaining their own prestige. Thus the instructional group encompasses a potential of risk and personal conflict as individuals are simultaneously motivated to

²⁶Gale Jensen, "Social Psychology and Adult Education Practice," in Gale Jensen, A.A. Liveright, and Wilbur Hallenbeck, *Adult Education* (Washington: Adult Education Association of the U.S.A., 1964), 145-148.

²⁷*Ibid.*, 144.

²⁸*Ibid.*

²⁹Roger W. Axford, *Adult Education: The Open Door* (Scranton, Pennsylvania: International Textbook Company, 1969), 79-81.

participate, but constrained from displaying their ignorance or personal ineffectuality.³⁰

A profile of our adult learner begins to emerge. He possesses some physical limitations, but offsets these with strong sociopsychological motives for taking up a role as a student. He draws on some abilities he didn't know he had in abundance, while mourning his loss of others. His awareness of time in relation to himself pushes him to learn now, but he has the patience to plan ahead and to work toward a distant goal, so long as he sees that he is making progress in his chosen direction. He is capable of setting realistic goals for himself, but he wants to see tangible results at each stage of progress, results in terms of increased knowledge and skills and enhanced personal relationships.

The adult learner is capable of making choices about his own continuing education. Still, he may be sensitive about his status as a learner, especially if he equals or exceeds the teacher in job experience and success—as well he may. The adult may suffer conflict in his role as learner, wishing to speak up and define what he wants from the situation, desiring to select what he feels is relevant to himself, but fearing that at the same time he will display some ignorance and thus lose status with his fellow students. He may choose to remain silent and make-do with teacher-selected content and method. In this stressful situation he may react to his conflict by becoming over-critical or rebellious, if he concludes that he is not learning.

In addition, the adult learner may be limited by his prior learning experiences and habits, if their effect has been negative. He may be resistant to new learning, exhibiting a stubborn reluctance to change, and he may persistently rationalize his inability to discard old ideas in the face of opposing new facts. On the other hand, the adult is capable of re-valuing prior experience and of shaping his attitudes and his skills for new learning through his cognitive processes. He has the aptitude to make selective, constructive responses to new experience. He can organize this new experience into new intellectual constructs and, usually, assimilate it with ease. The adult is particularly apt at structuring new insights based on his multiple, varied experiences, though he may need assistance in developing his capacity for the rearrangement of particulars into generalizations. On balance, though he has some

³⁰Jensen, *op. cit.*, 145.

admitted liabilities as a learner, the adult also has many substantial assets.³¹

As the profile of our adult learner has emerged, so also does his role. He must evaluate himself simultaneously in terms of his personal learning capabilities and in terms of his personal needs. There can be no meaningful continuing education for him except within these limits, and no one else can speak for him. Since not all would-be educators in library science have learned to ask practitioners for this self-evaluation, the adult learner may have to speak loudly, repeatedly, and sometimes rudely to overcome the prevailing predisposition to treat him like a child and tell him what is good for him. It is the learner's responsibility to be as aggressive as necessary to make his point. Unfortunately, if and when he is asked for a self-evaluation, the request is likely to be posed in a questionnaire that is over-long, badly timed, ineptly phrased, and generally a nuisance. The adult learner must grin and bear it. His responses are important, and, since he wishes to shape the situation to his own advantage, he must respond.

Following self-evaluation, the adult learner has a role in planning his own learning experiences. If the continuing education is to be successful in the learner's terms—and if not, why bother?—his active participation in planning is essential. Again, he may have to convince some educators of the validity of this part of his role. So be it; let him speak until he is heard.

Finally, the adult learner has a role in the evaluation of the product of this planning, the learning experience itself. He must evaluate it in his own terms of ease-of-acquisition, relevance, and quality, as well as in terms of its contribution to his personal career goals and progress. The continuing education system, as a system, is viable only on the basis of such evaluative feedback. Again, there is some nuisance for the adult learner inherent in providing this feedback. If, however, the total effort is to proceed in the direction of improving the educational experiences available to librarians, then the librarian-participant's responsibility is clear.

In summary, the adult learner's role is tri-partite. He must be market researcher, carefully and honestly studying himself. He must be product designer, combining his knowledge of his own capabilities and needs

³¹McCluskey, *op. cit.*, 168-172.

with the educator's resources for developing learning situations. And he must ultimately be consumer, providing feedback about the product by his informed criticism of it.

The profile and the role of the adult learner have emerged; now the configuration for the complementary learning situation becomes clear. It should be a problem-centered small group situation in which three basic considerations are equally important: consideration for the physical comforts of the participants, consideration for their social needs, and consideration for their expressed learning needs. Although the central emphasis of the group learning experience usually has to be chosen in advance in order to attract similarly motivated learners, hopefully it can be selected on the basis of identified needs of potential group members. The immediate situation should be flexible rather than highly structured. Several alternative routes to achieving the announced objectives should be ready for use. None of this preparation, however, should be used as an excuse to eliminate the possibility of employing alternatives suggested by members of the group.³²

The teacher for such a learning experience needs to be more a group leader and a resource person than an authority figure. He should be prepared to have as members of his instructional group some individuals who have more experience than he has, some who earn more money than he does, and some who exceed him in professional skills. The teacher should be the expert in group process who can draw out and synthesize the resources hidden in the group. He should have a sense of personal worth sufficient to allow him to bring in others when they can lead the group more profitably than he; and he should be capable of assuming the role of student himself when such a maneuver will allow group members to display expertise he lacks. Further, he should allow the adult learners to assume full responsibility for their own participation and their own contributions to the group objectives, while he concentrates on facilitating interactions that will be satisfying to the members of the group.³³ Above all, the teacher of adults needs to be adept in communication, for this skill is the fulcrum on which success in small group interaction depends. Where will librarianship find such paragons as teachers for its continuing education program? It's just

³²*Ibid.*, 166-169.

³³*Ibid*; Jensen, *op. cit.*, 148-152.

possible that those who aspire to the role will have to first become students themselves, with all that the status implies for adults.

It has proved impossible to explore the role of the adult learner, even briefly, without also touching on the role of the teacher. Truly, in a viable continuing education system the relationship between learner and teacher approaches that state of interdependency characterized as homeostatic. At first, nuisance and frustration abound for the learner and rigorous new skills are demanded of the teacher. As each adjusts to the positive aspects of his own redefined role, however, he finds he is in a supportive role *vis-a-vis* the other. Equilibrium prevails in the system, and learning happens.

There is a postscript: What I have been saying about the nature of adult learners and the importance of their personal involvement in their own instruction has been couched in terms of continuing education—education after the completion of the master's degree in library science. If, perchance, there should be some hint, herein, that entering library science students are also adults, if there should be some intimation that master's level students would profit from similar involvement in their own education, or if the inference could be drawn that the roles of learner and teacher should be similarly redefined at the earlier stage, then let the burden of that innuendo fall on the consciences of the graduate library schools.

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The lectures have been published in groups of three. The first volume was published in 1952 as Volume 55, no. 1, of *The University of Tennessee Record*; the second volume was published in 1954 as Volume 30, no. 6, of *The University of Tennessee Record, Extension Series*. Beginning with no. 7, the lectures have their own series, *University of Tennessee Library Lectures*.

