Review of the School of Librarianship

of an

Ad Hoc Committee of the Graduate Council

University of California, Berkeley

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Committee Members

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REPORT OF THE COMMITTEE TO REVIEW THE GRADUATE PROGRAMS

IN THE SCHOOL OF LIBRARIANSHIP

This Committee was appointed by Dean Elberg late in the Fall Quarter, 1973, to review the graduate programs of the School of Librarianship. The charge to the Committee is reproduced in Appendix 1. The Committee had its first meeting on December 11 when it met with Deans Wilson and Harlan. Subsequent meetings were held with the entire faculty and with students. Both groups were invited to communicate with the Committee and one letter from a faculty member and one from a student were received. In addition, a number of students spoke with the student representative on the Committee, and a majority of the faculty spoke with members of the Committee. Letters were sent to alumni, libraries, and deans of other accredited library schools asking for their evaluations of the School and its programs. Documents supplied by the Graduate Division, Dean Wilson, members of the faculty, and other persons were examined as were the doctoral dissertations and research publications of the faculty. On the basis of the above evidence and discussions within the Committee, certain conclusions were formulated. These are set forth in the following sections of 'is report together with supporting evidence where available. The members of the Committee are well aware of their lack of depth of knowledge of the entire field of education for librarians and present our conclusions not as dicta, but as proposals which we hope the administration and faculty of the School of Librarianship will give careful consideration and for which the administration of the Berkeley campus will provide to the limits of their capacity the support necessary to realize desirable changes.

I INTRODUCTION

We found the School of Librarianship to be a troubled institution in a troubled profession, and the natural reaction is to condemn it for what appear to be its

many shortcomings. We believe, therefore, that it is important to point out

at the outset that we found the School historically to be a quality operation,

with programs which most people found to be well-suited for their purposes, and

a national reputation as one of the top schools in North America. This reputa-

tion has been earned through the success of its graduates in attaining prominent

positions in the profession and through the publications and professional activ-

ities of the faculty .

The major adverse characteristics of the School were stated succinctly by one

of the Deans who replied to our inquiry.

> "In my opinion, the school is fortunate in its location but has
> not achieved distinction that puts it among the top schools, des-
> pite some polls which say this. Why is this so? Chiefly, I think,
> because the doctoral program was so slow in developing and was
> nearly dead until artificially stimulated by the H.E.A. fellowship
> program. Also, because the School lacks a sustained publications
> program that gives it a focus beyond teaching.

> "It is my personal opinion that the School is run too much like an
> academic department, not a professional graduate school. The faculty
> are loners, not really working as a group on many things, and not
> deeply involved either in local, California, or national professional
> affairs. The faculty seems a bit out of touch with some major profes-
> sional themes -- relationship of other media and of instructional
> technology to library education and involvement in continuing profes-
> sional education, for instance.

> "I would characterize the School as under-administered, under-financed,
> too traditional and too aloof."

The Committee, in general, supports this viewpoint, and in the following sections

of this report, the various allegations are explored. The next section discusses

some overall aspects of the School, its position among all similar schools, the

profession in general, and administrative problems associated with a professional

school in an academic environment. Section III focuses on the professional pro-

grams of the School which include the Master of Library Science, and the new

certificate programs. Section IV discusses the doctoral programs. Faculty and

research are the subject of Section V. The final section discusses the development of Information Science as a separate field of study and the problems and opportunities this poses for the School. We have not commented on the undergraduate courses offered, as they are a minor part of the academic program, and our charge was limited to the graduate programs. It should be pointed out, however, that if the proposition that the School is understaffed is found to be supported by further investigation, the use of resources for undergraduate courses should be carefully examined. Separate budgetary support for these courses would provide an indication that they were desired by the campus community and prevent the erosion of teaching resources needed for the major missions of the School.

II THE SCHOOL OF LIBRARIANSHIP

A ranking of the School as fourth in the country in the recent Margulies and Blau study[1] is consistent with earlier evaluations[2] which placed it in the fifth or sixth position. Letters received by the Committee from deans of other schools and librarians confirm a picture of a school which ranks near the top of the fifty accredited schools of library science, but lacks the qualities which would make it a distinguished school. This evaluation rests primarily on its image as a traditional school, but other factors such as size, financial support, weak doctoral program, and lack of professional orientation are contributing factors.

The School ranks about 15th in terms of number of students, 17th in number of

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[1] Rebecca Zames Margulies and Peter M. Blau, "The Pecking Order of the Elite, America's Leading Professional Schools". CHANGE, Vol. 5 No. 9, November 1973, pp. 21-27

[2] Ray L. Carpenter and Patricia A. Carpenter, "The Doctorate in Librarianship and an Assessment of Graduate Library Education", Journal of Education for Librarianship, 11: 1 (Summer 1970) p. 39, 41, 42.

faculty, and 13th in budget. Among the five schools listed by Margulies and Blau, Berkeley has the fewest students, the smallest faculty, next to the highest student/faculty ratio, and the smallest budget. The demand for MLS graduates does not warrant increasing the size of that program and the doctoral program is the second largest in the country, so an increase in the student body is not recommended.

An increase of two FTE is needed to bring the overall student/faculty ratio in line with the other leading schools. This increase is needed not only in teaching personnel, but in administration and support. Berkeley spends less than half the amount on administration that is spent by the other leading schools, and this is a serious problem in a professional school where large amounts of time must be devoted to retaining close relationships with the profession. The inevitable result of a situation where one-half of an FTE is the total provision for administration is the sacrifice of individuals who take on the administrative responsibilities, and a reluctance on the part of most people to undertake such activities. In addition, this limited provision for administration limits the degree of involvement of the administration in national affairs which hurts student and faculty recruitment when the other leading schools have provision for two full time administrators. A related matter concerns placement of graduates. Graduates of the School who responded to our request for comments on the School frequently mentioned the lack of help in placement. One way in which a professional school maintains close relationships with the profession and obtains feedback on its programs is through involvement in the placement of its graduates. It is typical in the other leading library schools to operate their own placement activities, and this gives them a decided advantage in professional relationships. This activity which continues in terms of career guidance and alumni placement also builds strong alumni relationships which can be of great importance to a profes-

sional school. In addition, additional budget is needed in the School to support professional activities particularly for travel and related expenses. The image of the School of Librarianship at Berkeley as a traditional school, its lack of close relations with the profession, and the comment that it operated more like an academic department than a professional school are all related and can be traced in large measure to the ambiguous role of a professional school on the Berkeley campus. The School is treated by the administration as an academic department, so it is small wonder that it acts like one. Faculty are primarily rewarded for research and teaching, so it can be expected that they see little to gain from any extensive involvement with the profession. Research is judged by academic criteria rather than relevance, so emphasis on scholarly historical studies and theoretical papers on information science is a logical response to the system.

There is little doubt that the School could benefit from creating a new, more modern image that seems relevant to the profession, but except in some more or less superficial ways, the directions to take are not clear. A new name for the School could stimulate interest; a more appealing bulletin could provide a better picture of the School for prospective students, and other similar activities offer opportunities for change, and hopefully, improvement. The fundamental change, however, must come from the faculty, and this will be much more difficult. New faculty additions are a possibility, but vacant FTE's are scarce, and outstanding candidates for the one position now open appear to be even scarcer. The doctoral programs in library science have, in general, not attracted outstanding students, so the problem of faculty recruitment is a difficult one. A majority of the present faculty has doctorates in fields other than library science, but there is a strong present need for faculty with strong interest and background in new developments in librarianship. The faculty of the School appear agreed as to the type of person for whom they are searching, but there is deep disagreement

when individual candidates are proposed, as none fulfill all the desired qualifications. This present disagreement is symptomatic of a deeper problem in the School. Most of the faculty are "loners", and there is little "esprit de corps" within the School. The future of the School is probably most dependent upon a change in this situation which can only come from a fundamental change in the faculty as a group. One faculty member suggested team teaching as a vehicle for improving relationships within the School. This has been used successfully at UCLA, and it would be worth trying. In fact, it has been utilized in the one required MLS course, Introduction to Bibliography, and in the new Design Seminar for advanced students, and in both cases reports on the courses are in general favorable.

The fundamental issue in the School, however, is the academic-professional dichotomy. Students, alumni, and librarians view the School as a professionally oriented institution and recommend changes in admissions, curricula, and professional activities which will increase and improve its professional orientation. The majority of the faculty, doctoral students, some people in other library schools, and faculty in other units on the Berkeley campus evaluate the School on more traditional academic criteria. This establishes an internal conflict in the School which will tear it apart unless greater tolerance of opposing views is generated, and a modus operandi for operating in two quite diverse worlds can be realized. It would be a comparatively easy accomplishment with unlimited resources, but with a tight budget and few faculty openings, choices on appointments and the allocation of funds become decisive determinants of the future of the School and thus generate disfunctional controversy.

It is in the light of this schizophrenic personality of the School that the discussion of its programs must be evaluated.

III THE MLS AND CERTIFICATE PROGRAMS

One of our assigned tasks was to inquire into the adequacy of the present programs leading to the granting of the degree of Master of Library Science and the various certificates. Inter alia, we were to examine the questions of the length of time needed to complete requirements for the MLS and the desirability of extending the present program to two years rather than the present one year. Alternatives to simply increasing the number of courses required could be institution of an internship or the requirement of a supplementary master's degree in a specific field of knowledge.

The procedures followed have included meetings with the faculty, administration, and students of the School and informal discussions with people within the School who wished or were willing to meet individual members of the subcommittee. The formally scheduled general meeting with students was sparsely attended although it proved valuable for some insights into student opinion. A good deal of our information comes through the distribution of letters of inquiry to over one hundred alumni of the School, selected at random, and over two hundred libraries, selected as the most important or representative of various sizes; of types, as general, academic, specialized in holding, etc.; and of importance, as national, regional, or State. The Committee received over one hundred and fifty answers to its letters.

Our inquiries disclose that the graduates of the School are almost invariably regarded as of high caliber and that employing institutions find in them a great deal of flexibility in adapting to new situations. The School enjoys a good, general reputation. This over-all statement should be borne in mind since most of what we have to say points to a series of conditions and tensions, all of which ought to be looked at but some of which are of the fabric of libraries and are not

easily remedied at this time.

1. There exist two basic categories of prospective employers, namely the more general and average public libraries and the academic or highly specialized ones. There are, of course, many further subdivisions. Each basic category has its own needs and requirements, and any education that aims at preparing students to meet both sets cannot easily be reconciled within a one-year curriculum, if at all. On the other hand, a separation of curricula would divide the School into wholly separate parts and probably make matters worse. The Certificate program, with its flexible choices, seems to us an attempt to meet differing needs and one very much to be commended. It is too new for evaluation through student and employer response. Another supplementary feature of increasing flexibility and choice, that ought to be considered seriously by the School, is the institution of post-graduation or post-employment courses for refreshment and enlargement of skills.

2. There is difficulty in reconciling adherence to traditional library concepts and methodology with new techniques and new methods of storing and presenting information. The new may be placed within the categories of machine storage and retrieval of information and use of newer forms of non-book media. (Here the line of division is somewhat different from that delineated in the preceding paragraph.) The difficulty is reflected in tension within the faculty of the School and, to a lesser extent, students. The administration, which sees machine storage and retrieval of information as an increasingly important form has tended to put greater emphasis upon it, but there is restiveness within the faculty and student body about this emphasis. The students look to placement now in libraries that use traditional methods and are prepared to think later about changes that may take decades. Within the faculty the elements of restiveness are more complex; some derive from positions that are eminently reasonable; in a

few instances, they may be regarded as demanding that research concerns
containing a substantial ingredient of antiquarianism be erected into sig-
nificant parts of the curriculum.

3. There may be a problem of morale among students in the program for
the MLS and of faculty as well. It may derive in part from the size of classes
and load upon faculty teaching in the MLS program since the same problem does
not seem to show up among the students in the doctoral programs with their small
numbers and far greater contact between students and faculty. The subcommittee
notes, however, that the low attendance of the general meeting with students
could be explained equally well in terms of a sense of hopelessness or of absence
of any large measure of dissatisfaction.

4. Discussion with students and letters of response to our inquiries indi-
cate a number of elements of dissatisfaction with current procedures and services
of the School:

a. There is a widespread feeling that advising is not adequate, either in
terms of orienting entering students or of continuing advice through the entire
period of study.

b. Both students and alumni expressed widespread dissatisfaction with
present services and assistance in finding employment, both upon graduation
and when changing positions at later times. At present such assistance is given
through the campus-wide office in which there is no person genuinely acquainted
with library needs and possibilities. The service tends to be an annex of teacher
placement and geared to public school libraries.

c. At present screening for admission to the School is based primarily
upon transcripts and records. Interviews are not used systematically. There is
a need for an assessment of personality at the time of admission and afterwards
since librarians have a good deal to do with the public.

5. The Committee notices that there is relatively little in-volvement of the faculty of the School in the activities of librarians as a professional group. There is accordingly greater difficulty in the creation of a professional _esprit de corps_ among students entering what is to be their profession.

6. We have spent a good deal of time looking into the question of length of study for the MLS. It is undoubtedly difficult to cover all of the necessary ground in one year but students tend to fairly violent opposition to lengthening the curriculum and with it the cost of the MLS. A number of suggestions are worth further study. One is for internship in a two-year program that would give students experience and enable them to earn some of the additional money they would need while acquiring credit in a supervised situation. The Richmond, California, Public Library now reserves three positions for internees in a program it reports to be eminently satisfactory. On the other hand, the Berkeley campus library, which could certainly use the additional hands, has no money to finance such a program. Any such program would require steady and rather intricate coordination and placement. Accordingly, internship must be regarded as an open question at this time. Another idea is for a second master's degree to supplement the MLS. This idea is especially useful for graduates planning to work in academic or highly specialized subject libraries. It has far less use, if any, for those planning to work in more general, public libraries.

7. The question of length of study for the MLS becomes more pressing should the School train librarians familiar with information science in any meaningful way. The present one-year program basically prepares for general librarianship and the offering of a few additional courses under the broad grouping of "information science" fails to integrate the two areas adequately. The total program must be coordinated, and the sequence of courses of individual students rationalized depending on their desired specialty. At the present time, the curriculum

suffers from courses being offered on an ad hoc basis to the point of
rendering it almost meaningless. Courses offered to serious students
have to have context. First the total program should be designed for
the student desiring to specialize in library automation as a career,
and then emphasis must be placed on the particular specialty of the
student, be it technical processing, reference or administration. The
faculty responsibility for presenting the curricula should guarantee
that their courses fit into the total program, that within an area, one
course builds on the other. Since time is limited, courses should be
relevant, i.e., pertinent to things that can be done today or tomorrow,
not some future blue-sky possibility.

Because of the necessity of integrating the curriculum and building one
course on the other, it is doubtful that a program with significant infor-
mation science can be completed in one year together with the requisite
traditional material. This has been recognized in the initiation of the
program leading to the Certificate of Completion of a Graduate Curriculum
in Library Automation and Information Science. Consideration could be
given to the inauguration of a joint degree program as well.

8. We have further inquired into desirable modifications of curriculum
and the matter of traditional as against newer methods. A number of answers
from libraries to our letters of inquiry have stressed their own idea that
because of changing conditions in libraries it is important to infuse students
with an understanding why things are done, that is, give them a grounding in
theory as well as practice so that they are better able to adapt to new situ-
ations. The answers to our letters also indicate need for strengthening
specific elements within the current curriculum. One gap much reported is for-
mal instruction in personnel management, library supervision, and budgeting.

Another is more extensive training in non-book media. A third is more work in handling government documents. A fourth is more emphasis on cataloguing. A fifth is better training in reference that would emphasize ideas and theories of basic approach in a changing and variable set of needs, not the least of which is to find out what the inquirer really wants. Lastly, the answers contain some indication that the School should give help in diagnosing deficiencies in and preparing its students for public appearance; help in developing skill at public talks is one point. We emphasize again the fundamental point that there is general approval of the caliber of students and the basic quality of preparation for library careers lest our fairly long list obscure that approval.

IV THE DOCTORAL PROGRAMS

In his report on his observations following a visit to the School of Librarianship in February, 1972, Professor Herman Fussler of the Library School of the University of Chicago noted that in a recent survey "the Berkeley M.L.S. program was rated sixth among . . . those master's degree programs that had been voted 'distinguished' or 'strong' among 44 accredited library schools . . ." and that "the doctoral program was also rated sixth 'in effectiveness' (after Chicago, Illinois, Rutgers, Columbia, and Michigan)." He concluded that these findings "tend to suggest that the program in librarianship at Berkeley may not, in the past, have enjoyed quite the same extraordinary high intellectual distinction that many other Berkeley programs have held." As regards the M.L.S. this would seem a fair statement of the case-- sixth out of a field of forty-four is good but not extraordinary. As regards the doctoral program, however, Professor Fussler was putting the matter kindly, for there Berkeley indeed came in sixth, but sixth out of a field of just ten. In fact, the study to which he referred, Ray L. Carpenter and Patricia A. Car-

penter,[3] has Berkeley last on the list of those institutions whose doctoral

programs seemed, at the time of the survey, to have reputations worth mention-

ing; the four below Berkeley are lumped together under "all others". The doc-

toral program in librarianship at Berkeley does not appear to have been regarded

in the profession as a particularly distinguished one.

The relation between any academic institution's reputation and the actual sub-

stance of the work being carried on within it is, of course, very elastic; and

changes in reputation undoubtedly lag behind changes in the real strength of

the institution. These caveats are, perhaps, especially pertinent where schools

of librarianship are concerned, since ideas of what they are supposed to be accom-

plishing, both in teaching and in research, appear to be relatively undefined and

variable, and to have been in a process of change during these past several years

especially. When the Carpenters asked their respondents to list schools they con-

sidered likely either to improve or to decline in the next five to ten years,

Berkeley and Indiana tied for most likely to improve. How informed that conjecture

may have been there is no way of telling, as the Carpenters did not ask their re-

spondents to explain, but the School of Librarianship has, at any rate, made an

important change in its doctoral program since the time of the Carpenters' survey.

This is the redesigning of its program for the D.L.S.

The question of the relative merits of the Ph.D. and the D.L.S. for librarians

is one which, according to the Carpenters, "has taken much time and energy on

the part of educators". Berkeley has long offered both degrees and was the

only institution to do so until quite recently, when Indiana began offering a

D.L.S. in addition to its Ph.D. Most of the Carpenters' respondents were of the

opinion that the D.L.S. is the more appropriate degree for library administrators

and the Ph.D. for researchers, as one might expect from common usage, but in

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3. op cit.

practice there appears to have been little real difference between the two Berkeley degrees except the language requirements for the Ph.D. The redesigning of the D.L.S. is intended to make it more distinctly appropriate for library administrators; more than that, it is intended to impart a distinctive character to holders of the Berkeley D.L.S. as innovative administrators, interested and skilled in adapting sophisticated methods of management or of information retrieval, for example, to meet the needs of libraries. This change in the D.L.S. is too recent for its consequences to have become apparent as yet, but it is intended to have a quite basic effect on the D.L.S. itself and may affect the Ph.D. hardly less significantly, and so any assessment of the doctoral program in librarianship at Berkeley must begin by describing the new D.L.S.

The principal difference between the revised D.L.S. and the old one, and the main thing which sets it apart from the Ph.D., is that the dissertation for it is to consist of the identification and solution of some significant problem in the management of libraries. The dissertation is to include a methodical survey of "the state of the management art in the library world" with respect to the problem in question, but it is not envisioned as a piece of basic research; it is intended, rather, to show what the candidate is prepared to do in the way of practical innovation in library management. His preparation is to consist, in a greater measure than heretofore, of work in fields such as systems analysis, time and cost studies, and computer science, much of it done in courses outside the School of Librarianship, though the School is expanding its offerings in what are called "middle level" courses in various areas of library technology. As a means of bringing this work to a focus for the individual student and promoting communication of ideas and

information among students the School has established an ongoing "Design Seminar" which is intended to be the institutional center of the D.L.S. program.

No specific courses are required for the degree of D.L.S., but the candidate is expected to prepare himself in five general areas. These are described in the most recent "Digest of Procedure, Requirements, and Other Information" concerning the doctoral programs as follows:

1) basic librarianship: the standard, central library and bibliographical operations (cataloging, indexing, reference work, literature search, collection development, file maintenance, etc.); 2) the environmental variables for administrative and design problems: user studies, characteristics of subject literatures, the political, economic, social and professional milieu of libraries; 3) library technology, especially but not only computer technology in library operations; 4) tools of analysis and design: organization theory, systems analysis, time and cost studies, basic statistics, basic accounting, etc.; 5) evaluation principles and procedures.

At the beginning of his doctoral studies, the student is to plan what form his preparation in these areas will take. He is assisted in this planning by a three-member committee of the faculty assigned to supervise his doctoral program, the chairman of this committee being chosen according to the student's principal area of interest and serving as his advisor. Where the student already has an M.L.S., this will doubtless be taken to constitute his preparation in the first area automatically; otherwise, the committee will specify a portion of the regular work for the M.L.S. as satisfying this requirement. In other areas previous academic work or even, in special cases, previous working experience (as, for instance, in computer programming) may satisfy the committee;

otherwise the student must choose courses to take in these areas and obtain the committee's approval of his choices. On completion of his preparation, the student submits materials evidencing it--papers from courses, usually--to his committee for review and the committee sets a written examination for him. For both of the students who have advanced to this stage at the present writing, this examination has consisted, by their choice, of design problems like those which they will draw up for themselves subsequently as dissertation projects; for this examination they are to discuss the state of the art as it relates to the design problems they have been given and go on to say what approaches they would take to them. Following the written examination there is to be an oral examination, essentially advisory in function, on completion of which the student will be advanced to candidacy. He is then to prepare a proposal for the design project which will be his dissertation, and when the project has been approved by his committee (no formal prospectus examination is envisioned) he will proceed with it.

From this description it will be clear that the new D.L.S. is oriented towards two kinds of professional activity which the School has hitherto not emphasized particularly, modern technology for storing and retrieving information, and the management of large, complex library systems and related agencies. If these are the "growth industries" in the world of librarianship today, the new D.L.S. can be described as a move by the School to buy into them. The program is also designed to take much more advantage than the School has done before of one of its chief competitive resources, the strengths of other departments and schools on this campus in fields related to librarianship. Finally, it represents the School's most definite attempt to alter its stodgy image and associate itself with the widely held view that the whole field of librarianship and information

science is entering on a period of unprecedented expansion and change.
One kind of activity which has always been associated with librarianship is
not likely to be fostered by the D.L.S. Traditionally librarianship in this
country has often been thought of as a vocation akin to teaching, and the li-
brary has been not just an agency for making books and information available
but an instrument of democratic culture. This attitude towards librarianship
is by no means outmoded among students in the School; one of the most frequently
and vehemently expressed complaints among them and among those alumni who res-
ponded to the committee's request for comments is that the School pays far too
little attention to ways in which the library can serve the community. In
principle the new D.L.S. could doubtless accommodate interests of this sort,
but the thrust of the program is altogether technological, and if it should
come to impart something of its distinctive character to the School as a whole,
the result might be deplorable from this point of view. However, to say this
is not so much to find fault with the new D.L.S. as to suggest that its existence
makes the arguments for strengthening the service-oriented offerings of the
School as a whole more urgent.

For the new D.L.S. the requirement that candidates for admission normally have
a "substantial amount of successful professional experience" before entering
the program has been dropped. Dean Wilson, in proposing the new program to the
faculty, argued as follows in support of omitting this requirement:

> An internship is a suggested part of the program; and no internship would
> be acceptable that did not give a variety of experience of library situa-
> tions. Library experience itself guarantees nothing; a year's post-MLS
> work as circulation librarian is not of much value. Many potential students
> in the program do indeed have more or less extensive experience already.

But to insist on a given amount of prior experience as a strict
condition of admission is too rigid and too little selective.
On the other side it might be argued that requiring candidates to have
some practical experience in library work might help promote confidence
in the degree on the part of prospective employers, an especially impor-
tant consideration for a program which makes the potentially irritating claim
of preparing people to go out into the world of working librarians and change
its ways. As the suggested internship has not been incorporated into the
program, and perhaps could not be, given the acute difficulties involved in
maintaining arrangements for internships, to omit the requirement of prior
experience may risk impairing, if not the real educational value of the pro-
gram, at least the effectiveness of the degree as a ticket to employment.
However, there are three other considerations which probably suffice to tip the
balance in favor of the decision not to make prior experience an absolute require-
ment. The first is that the decision to go into librarianship is often made com-
paratively late in life and by people who already have some training in other
fields. Any delay that is imposed on the completion of professional training is
therefore likely to be especially onerous in this field. Secondly, it is always
desirable--but especially so for a program which seeks to foster the youthful
qualities of mind which make for innovative approaches--not to let preparation
for a career be extended any further than is altogether necessary into the years
of life which are usually the most productive of original work. Thirdly, this
program may prove attractive to some people who would not have been drawn to
work in librarianship as conventionally conceived--people with aptitudes and
training for the kinds of work which the program is designed to emphasize--and
these might well be put off by the requirement that they begin by going the stan-

ard route to an M.L.S. and working for a while in a routine library
job.

The new D.L.S. was conceived, in part, as a means of attracting students.
"We need doctoral students," Dean Wilson pointed out in proposing the new
program to the faculty; "we have few applicants for the Ph.D. programs now
that the government does not underwrite the costs." He was referring to the
cessation of the Fellowships for doctoral students which had been made avail-
able by the Higher Education Act of 1965. Thanks to those government Fellow-
ships, the doctoral program had "really come to life for the first time,"
as Dean Swank put it in a report in 1967. Enrollment figures dramatically
confirmed this observation. From 1955 through 1965 the number of new entrants
had been either zero (three years), one (four years), or three (three years),
except for 1965, when six students entered on doctoral studies. During the
years when the Fellowship program was in effect the figures were eight, eleven,
thirteen, five, and six, and in 1971, after the termination of the program, the
figure dropped to three again; but in 1972, the first year when students were
admitted for the new D.L.S., the figure went up to fifteen, and eight were ad-
mitted in 1973. Support for these students must come from university-wide
fellowships, research assistantships, and part-time teaching and other jobs,
and is likely to be meager, although the School does have a $200,000 Carnegie
Endowment, the interest on which can be used in part for doctoral fellowships.
From one point of view, the new D.L.S., with its emphasis on finding and designing
solutions for specific problems in library management, can be seen as a fresh effort
to accomplish one part of the original purpose of the Institute of Library Research,
which was to bring education in librarianship into closer association with the de-
velopment of new technology and methodology. The D.L.S. program would obviously
be benefited particularly if the Institute were able to attract funding for design
projects of the sort envisioned for D.L.S. dissertations. Hitherto the Institute

has provided some part-time employment for a few doctoral students in

librarianship--five altogether during the year 1972-3 out of a total

of thirty-three doctoral students enrolled--but the kind of work it has

been engaged in has not been such as to provide support for dissertation

projects, and its contribution to doctoral studies in the School would

seem to have been marginal. Whether any more productive relation between

the Institute and the School might be possible is a question which cannot

be addressed here, but such a development would be nothing short of a pana-

cea for the School's doctoral programs, especially the D.L.S.

Indeed, it is impossible to consider either of the doctoral programs in li-

brarianship without taking into account the problematic condition of research

in librarianship. Whether librarianship has adequate substance to warrant its

being a field for doctoral study at all appears to be a standing topic of de-

bate in the profession. When the Carpenters asked their respondents this

question, a third of those who were holders of doctorates in librarianship and

engaged in teaching it answered that "inadequate" best described their feelings

about the substance of librarianship. On the other hand, of those who were en-

gaged in library administration, only twelve percent answered this question

in the negative. The Carpenters account for the difference as follows:

> Teachers are more likely than library administrators to be oriented to
>
> finding colleagues in other disciplines where there is little or no
>
> question about substance, rightly or wrongly. Their criteria for evalu-
>
> ating substance are likely to be largely similar to those of traditional
>
> studies--rigorous research and well-developed methodology, a fairly rich
>
> body of theories, and an elaborate and extensive literature, all relatively
>
> lacking in librarianship. Administrators, on the other hand, are more
>
> likely to be oriented to peers in other administrative roles, roles that

require some level of task proficiency and grasp of major intel-

lectual issues of their organizations, but roles that primarily

are action-oriented and involving decision-making of a more practi-

cal and less reflective sort than the roles of their teaching colleagues.

If this is the case, then the new Berkeley D.L.S. would seem well conceived

to develop exactly the kind of substance that the market its holders will

be going out into considers appropriate to doctoral work. To the extent

that the D.L.S. becomes established as the distinctively professional degree

in librarianship and information science, the burden of proof of academic

substance, properly speaking, will come to rest squarely on the Ph.D.

The program for the Ph.D. in Library Science seems much more specialized than

that for the D.L.S. Rather than being responsible for five general areas, the

student must show comprehensive knowledge in just two fields out of a list of

twelve, one of which is the field of his intended dissertation. These twelve

fields are not considered to be comparable in definition to the five areas listed

for the D.L.S., but from the descriptions given in the "Digest of Procedure, Re-

quirements, and Other Information" it would appear to be the areas for the D.L.S.

that are defined more broadly. Moreover, the candidate for the Ph.D. will pre-

sumably choose as his second field one which is closely related to that in which

he plans to do his dissertation. Thus, the holder of a Ph.D. in Library Science

may have only a superficial knowledge of some aspects of Librarianship and in-

formation science which the holder of the D.L.S., whatever his specialty, has

been required to acquaint himself with in some depth; but the Ph.D. will, of

course, know his specialty in much greater depth, and his dissertation is ex-

pected to be a new contribution to knowledge in that field. In this way, too,

the existence of the new D.L.S. has the effect of throwing into relief the

theoretical and academic nature of the Ph.D. It should make candidates, advisors,

examination committees, and dissertation directors for the Ph.D. in Library
Science more rigorous in their insistence on truly advanced and original scholar-
ship.

In the past, holders of the D.L.S. have gone into academic positions about as
often as holders of the Ph.D. Now that the Ph.D. is to be the distinctly academic
degree, leading normally to a career in teaching and research, the question of how
the program for it should be conducted can be posed with a new clarity. The Ph.D.
should be regarded henceforth as the exceptional option. Students who, though
well qualified, do not demonstrate strong interest in teaching and research spe-
cifically should be directed into the D.L.S. program. Proposed dissertation
topics for the Ph.D. should be judged with a new severity and those rejected
which promise only to gather certain data which happen not to have been gathered
before or describe how something is done in various places: such work need not
be considered unworthy, but its place can now be said to be in the first part of
a D.L.S. dissertation, that which surveys the data relevant to a certain design
problem.

The fact that the Ph.D. must now be regarded as preparing people specifically
for positions in library schools makes the case for providing teaching experi-
ence as a regular part of the Ph.D. program especially cogent. Students in the
program generally favor this idea, some of them emphatically, and the very fact
that they are relatively few in number and may in time constitute a minority of
even the doctoral students in the School should make it easier than it is in
other parts of the University to work out teaching functions for them.
Traditionally library schools have housed such subjects as descriptive bibliog-
raphy and the history of printing and publication which, since they have to do
with books as things, seem to have a kind of spiritual kinship with librarianship
even though they have very little practical relationship to it. The School of

Librarianship has been and remains especially strong in this area. This provides
a ready source of research possibilities for Ph.D. dissertations of great
inherent interest and unquestionably academic nature, and more dissertations are
currently in progress in this area than in any other. In a department of the
College of Letters and Sciences such a situation would hardly call for comment,
but in a professional school, and one whose Ph.D. is mainly intended to prepare
people for positions in professional schools of the same kind, there is something
at least apparently anomalous in the fact that a relatively large part of the
doctoral work being done concerns something which has almost no bearing on the
work of the profession. It should be noted, however, that people whose research
is in this area are by no means limited to it in their teaching. The very fact
that much of what needs to be taught in library schools and is of most value to
librarians does not readily afford matter for doctoral level research may very
well justify this curiously mandarin aspect of the School's Ph.D. program.
Holders of the Ph.D. in this area may turn out to be the "generalists" that
library schools need in order to carry on much of their most important activity.
They are likely, also, to be the sort of person to cultivate in the school that
mere affection for books which, for all the new technology of information, still
seems a good thing in a librarian.

V FACULTY AND RESEARCH

Faculty in a professional school have a broader role to play than in a tradi-
tional academic discipline. The majority of the teaching must be in profes-
sionally oriented courses of direct relevance to the training of professionals
in the field. This necessitates close contact with the profession to keep
abreast of new developments and to constantly generate current illustrations for
classroom use. In addition the practicing members of the profession look to the

faculty for leadership in research and continuing professional education. It is the rare person who can successfully carry on all of the required activities so the professional school must have a diversity of personnel each of whom is rewarded for contributions to the overall program. If certain activities are given greater rewards, these activities will be emphasized thus leading to a lack of balance in the total program of the school.

In the School of Librarianship at Berkeley the promotion criteria and procedures have led to greater rewards for research than for teaching and professional activities. The result is a tenured faculty that does most of the research and the rest of the faculty who do little research but most of the teaching. Last year there were twenty-one courses taught with twenty or more students enrolled. Two of these were taught by two or more teachers, two by full professors, four by associate professors, two by assistant professors, nine by lecturers, and two by visitors or others. This picture emerges as a consequence of a situation where the heavy enrollment occurs in the professionally oriented courses which are taught primarily by lecturers. The other side of the coin is illustrated by the supervision of individual research projects where over 60% were supervised by tenured faculty.

A number of students, graduates, and faculty mentioned the total absence of women and minorities on the ladder faculty. This situation is viewed as undesirable by all concerned and the administration has taken active steps to rectify the situation. In a field where there is a general lack of highly qualified applicants for faculty positions, where many of the new developments are mathematically oriented, and where the number of minority students in doctoral programs is very small it will not be easy to improve the faculty mix. In a profession that in the past has been predominantly women it should be possible to find qualified female applicants for faculty positions although the

heavy emphasis on research at Berkeley makes this more difficult. At the present time women have an influential role in the teaching in the professional programs in the School but they have not played as active a part in research and the doctoral programs.

The faculty of the School have produced a substantial body of published research. From the long lists of faculty publications we have selected the following as examples.

Fay Blake's recent book, The Strike in the American Novel, demonstrates an ability to distil the contents of a large number of books in a highly coherent and meaningful way, an ability particularly valuable in a teacher and scholar in the field of librarianship. This study is well researched, well organized and well written; the bibliography, and the annotated bibliography on the novels discussed, are valuable.

The writings of former Dean J. Periam Danton have been prolific, interesting, and scholarly. His consultant's report on library development in Jamaica (1968) is an impressive piece of work. His book on Book Selection and Collections: A Comparison of German and American University Libraries (1963) is an excellent comparative survey and analysis, and a useful excursion into the problem of how to devise collection policies that anticipate the future. The monograph Between MLS and Ph.D. (1970) is a study of sixth year specialist Library School programs, and comprises a thorough survey, evaluation and recommendations. This study was done at the request of the American Library Association. It gets to the heart of what degrees in Librarianship mean. His book, Index to Festschriften in Librarianship (1970), includes an interesting if brief history of kinds of Festschrift volumes in general, followed by a listing of 283 librarianship Festschrift volumes with very detailed subject and author catalog of articles in these volumes. Danton's book, The Dimensions of Comparative Librarianship (1973) is

an excellent work deriving from a seminar on the subject that he has given since 1961; it is critical and includes recommendations on improving comparative librarianship.

Robert D. Harlan's book, John Henry Nash, The Biography of a Career (1970) is a valuable contribution to the history of the fine printing movement in San Francisco, written with scholarly balance and in an engaging style.

Ray E. Held's Public Libraries in California, 1849-1878 (1963) was the first volume of a trilogy which will bring its subject close to the present. The first volume deals with the "Social Library" that served as the antecedent to the modern free tax-supported library. The second volume, The Rise of the Public Library in California (1973) covers the period 1878 to 1917, beginning with the date of the first state law specifically authorizing cities to establish public libraries. This is a thoroughly scholarly project.

Among the many publications of former Dean Raynard C. Swank is his Soviet Libraries and Librarianship (1962), a book-length report, written in collaboration with Melville J. Ruggles, of the visit of the delegation of U. S. Librarians to the USSR in 1961, under the U.S.-Soviet Cultural Exchange Program. The Midwest Inter-Library Center (1964) in collaboration with Stephen A. McCarthy, is the report of a survey of the program of ten state universities for the joint deposit of "little-used" books and other research materials. Swank's monograph on Library Service for the Visually and Physically Handicapped (1967) is a report to the California State Library. His address on "Evaluation of American University Libraries" in University Research Libraries in Japan and the United States (1972) examines with shrewdness and candor the purposes, problem areas, criteria, methods, and results involved in such surveys.

Dean Patrick J. Wilson, in his recent book Two Kinds of Power presents an analysis and clarification of the notion of bibliographical control. He distinguishes

"exploitative control" or "the ability to make the best use of a body of writings" from "descriptive control" or the ability "to line up a population of writings in any arbitrary order." The book is written in an intriguing style that reflects Dean Wilson's talent and training in philosophy. He stresses that whereas "bibliography" in the past dealt essentially with books or other printed materials, the library of the future will come to be regarded much more broadly as a "storehouse of information."

The following papers are representative of publications in the field of information science.

In "A Simulation Model of an Information Retrieval System," Information Storage and Retrieval, vol. 9, pp.13-32, 1973, Professor Michael Cooper discusses the design of a simulation system which may be used for performance evaluation of literature searching systems. Essentially, through the use of a thesaurus, the simulation system generates a set of pseudo-documents and pseudo-queries. Then, the effect of changes in query file characteristics on system performance and, in particular, on the material retrieved may be assessed by simulation of typical users. Various aspects of the design of such simulation systems are discussed in considerable detail.

The two-part paper by William Cooper, "On Selecting a Measure of Retrieval Effectiveness," ASIS, pp.87-100, vol.24, No.2,1973 and, "On Selecting a Measure of Retrieval Effectiveness - Implementation of the Philosophy," ASIS, pp.413-424, vol.24, No.6,1973 is a long analysis of the pros and cons of a procedure for measuring the effectiveness of a retrieval system. The procedure, as the author admits, is quite naive, in that it involves a statistical averaging of the subjective estimates of the utilities of a set of typical users. The pro and con arguments are presented in great detail and the consequences of a stopping rule suggested by the author are analyzed in the Appendix. In sum, this is a very careful analysis of a complex problem which does not have a definitive solution.

As a general comment, we are impressed by the high scholarly quality of many of the publications of members of the faculty, although we must add that the effects of faculty research on the curriculum seem to have been rather limited. The Institute of Library Research was established for a number of purposes but it was clearly envisaged as an important agency in facilitating the research of the faculty. The lack of involvement of the faculty of the School in the research in the Institute is a reflection of the preoccupation of the Institute with a limited area of research and of the nature of the faculty. They have been described by many as loners and this is indicated by the lack of team research and other evidences of group activities of an intellectual variety. There are no research entrepreneurs on the faculty with the result that there are no large scale projects developed which could support substantial numbers of graduate students as well as provide interesting sub-projects for their theses. A more active role of the Institute in relation to faculty research and a determined effort by some of the senior faculty to develop large scale projects could improve the quantity and quality of the research output of the school as well as improve the doctoral programs through financial support and better research projects. In addition projects which combined new concepts in information science with more traditional problems in library science could serve an important role in building more understanding of the mutual contributions of the two areas of study.

VI INFORMATION SCIENCE

The invention of the transistor in 1948 marked the beginning of a new era in information processing technology - an era which witnessed the evolution of primitive electromechanical calculators into highly sophisticated electronic systems which can process large amounts of information at lightning speed, low cost and high reliability.

The availability of computers with memories which can store of the order of 10^{12} bits of information, perform complex computations in microseconds and print the results at thousands of lines per minute, is bound to have - in the years ahead - a profound impact on the ways in which information is stored, accessed and disseminated. In particular, data banks and computer networks are likely to emerge as widely used means of information storage and retrieval,[4] complementing the libraries in their traditional role as repositories of printed matter. Furthermore, as a result of automation, the library of the 1980's is likely to play a much broader and more important role in the educational process than it does today. Specifically, a library will serve as a repository of not only books and periodicals, but also many forms of non-book media such as cassettes dealing with a wide variety of topics. Such cassettes could easily be duplicated, so that a student would be able to acquire or borrow a recorded exposition of any subject of interest to him. Consequently, the role of the book as a primary source of information is likely to decrease, while that of non-print media is likely to grow rapidly during the next two decades.

As suggested in [4], progress in information storage and retrieval is certain to make obsolete the present concepts of the catalog and the book stack. Question-answering systems will be able to provide the user in a matter of seconds with a list of references or   answer   a question stated in a quasi-natural query language. Furthermore, automation of copying facilities will probably make it economically feasible to provide the user with a printed copy of any desired document or portion of a book at the cost of a fraction of a

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[4] A comprehensive discussion of the impact of information processing technology on society may be found in a study prepared by the Conference Board, "Information Technology, vol.1, Some Critical Implications for Decision Makers; vol.2, Decisions That Cannot Wait," Ed. D.S.Morris Jr., Dir. C.M. Darling, The Conference Board, New York, N.Y., 1972.

cent per page.[5] Thus the need for borrowing a book for an extended period of time would be greatly reduced.

Along with these developments, library consortia are likely to be tied to computer networks, thus enabling them to service remote users much more effectively than is feasible under the present system. Furthermore, if the cost of communication of data declines by a factor of ten by 1980, it may be economically as well as technologically feasible to centralize the storage of books, periodicals, etc. in a few locations. This would not only greatly reduce the heavy expense of storing printed matter, but also would vastly increase the range and variety of sources of information available to the user.

Although the developments sketched above may be slow in becoming a reality, it is clear that rapid advances in the technology of storage, retrieval and display of information will have a pronounced impact on the role of the School of Librarianship and its programs in the years to come. Thus, it is imperative that the School of Librarianship undertake a thorough reexamination of its missions and come up with a plan for meeting the challenges posed by the advent of the computer age. We say this in emphatic terms because it is evident that the School of Librarianship at Berkeley has been rather slow in meeting this challenge and has taken an excessively conservative position in relation to the urgent need to adapt its curricula to the changing technological as well as social environments in which its graduates are likely to function.

As a first step in this direction, we recommend that serious consideration be given to changing the name of the School to School of Library and Information Science. Such a change, although largely cosmetic at this juncture, would serve to signal a shift in the orientation of the School and a recognition of the

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[5] These facilities are already available in the New York Times information retrieval system.

importance of information science - that is, the science of information storage, retrieval and organization - as an integral part of its present and especially future activities. Furthermore, such a move would be consonant with the developments elsewhere, as can be seen from the following list of schools which have changed their name already.

University of Maryland -- College of Library and Information Services

State University of New York, Albany -- School of Library and Information Science

State University of New York, Buffalo -- School of Information and Library Studies

State University of New York, GENESEO -- School of Library and Information Science

University of Pittsburgh -- Graduate School of Library and Information Sciences

Pratt Institute -- Graduate School of Library and Information Science

Syracuse University -- School of Information Studies

University of Missouri, Columbia -- School of Library and Informational Science

North Texas State University -- School of Library and Information Sciences

Brigham Young University -- Graduate Department of Library and Information Sciences

University of Western Ontario -- School of Library and Information Science

The change in name should be followed by more substantive steps involving (a) a reorganization of the curriculum; (b) adding faculty with competence in the more practical aspects of information processing; and (c) initiation of cooperative programs with other departments or schools on the Berkeley campus. A more detailed discussion of these recommendations is presented in the following:

Curriculum in Information Science

Of the 50 courses listed in the 1973-74 catalog of the School of Librarianship, the following eight courses may be broadly classed as relevant to information science.

- 240. Introduction to the Information Sciences
- 241. Theoretical Problems in Information Transfer and Retrieval
- 242A-242B. Principles of Information Retrieval
- 243. Automatic Data Retrieval and Question-Answering
- 256. Using Computers in Advanced Bibliographic Research
- 271. Interlibrary Cooperation and Information Networks
- 276. Survey of Library Automation

Since not all of these courses are offered on a regular basis, it is evident that the School's offerings in information science are deficient in depth, breadth and variety of coverage. What is particularly serious is the paucity of courses dealing with the more practical aspects of information processing, e.g., data base management, management information systems, query languages, graphic systems, e c. The more theoretical courses that are offered are high in quality but are not well matched to the needs or interests of the student body. Furthermore, it is our impression that the courses in information science stand in isolation from the courses in the more traditional areas of librarianship. As a result, very few masters as well as doctoral level students opt for courses in the information science area.

To generate more student interest in information science courses it might be advisable to encourage information science faculty to play a more active role in the teaching of traditional courses - e.g., cataloging, organization of bibliographic information, etc. - from a more modern point of view. However, such courses should be structured in such a way as to attract masters level as well as

advanced students. In this way, a substantial body of students in the School would be exposed to information science concepts and thus gain a better insight into the potentialities of this new area within library science.

A basic question that needs to be resolved is whether the School should set up a separate curriculum in information science or merely strengthen its offerings in this area. On the affirmative side, it may be argued that by offering a separate curriculum the School would be in a position to attract many students whose main interest is in information science rather than library science. On the negative side, a separate curriculum would tend to cut off the students in library science from exposure to information science concepts. Most such students have a liberal arts background and are prejudiced against anything that has to do with computers, systems analysis, programming languages, etc. To overcome such prejudices among students in library science it will be essential to expose them to information science concepts at an early stage of their training. From this point of view, an integrated curriculum may be better matched to the needs of the student body at this time. However, a separate curriculum may become a necessity in the not-distant future.

Need for Faculty in Information Science and Cooperation With Other Departments

Of the eleven regular faculty members in the School of Librarianship, approximately half (5) are in one way or another associated with information science or its applications. They are:

Professor C. P. Bourne. Main fields of interest: Library automation. Design, implementation and operation of information retrieval systems.

Professor M. E. Maron. Main fields of interest: Theoretical foundations of information processing. Analysis of retrieval and question-answering systems.

Associate Professor W. Cooper. Main fields of interest: Theoretical foundations of information processing. Performance evaluation of information retrieval systems.

Assistant Professor M. D. Cooper. Main fields of interest: Information science. Systems analysis and economics of information.

Assistant Professor V. Rosenberg. Main fields of interest: Information science and non-print media.

Professors Maron and W. Cooper are well-known for their work in the foundations of information processing and are highly qualified to teach advanced courses and seminars in the theory of information storage, organization and retrieval. However, the major demand for courses in information processing is likely to center in areas which are closer to practical applications, e.g., data base management, query languages, etc. An examination of the publications of the information science faculty suggests that only a very small subset of the group in question could teach courses of this type without a rather substantive shift in their interests. Thus it is evident that the School will not be able to reorient its programs toward information science without the addition of some new faculty on the assistant professor or lecturer level. The new appointees should be competent in the more practical aspects of information science and should have interest in areas which are relevant to the mainstreams of librarianship.

In the present climate of austerity, it would be unrealistic to expect that the University will be able to allocate many new positions to the School of Librarianship. Thus, new faculty will have to materialize primarily out of replacements for those who retire or resign in the traditional areas of librarianship. This, of course, may result in internal opposition to a deemphasis of the traditional

areas. We are hopeful, however, that the majority of the faculty will support reasonable moves for strengthening the School's activities in information science, since such moves are clearly in the best long-range interests of the faculty as well as the student body.

To augment its limited resources, the School should explore every possible avenue for cooperation with other units on the Berkeley campus which have substantial interest in information processing and related activities. This cooperation could take the form of joint programs, joint use of facilities, joint appointments, etc. For example, it might be worth exploring the possibility of setting up a graduate group in Information Science, which would involve the participation of faculty members from Electrical Engineering and Computer Sciences, Industrial Engineering and Operations Research, Business Administration, and other departments. Another possibility might be one or more joint bilateral degree programs on the masters level between the School and EECS, IEOR and Business Administration, respectively. Also, the Information Retrieval Group at the Lawrence Laboratory (Berkeley) could be brought into closer contact with the faculty in information science, with substantial benefit to both groups resulting from such cooperation.

In summary, it is our feeling that the School has not moved as energetically as it should to meet the challenges posed by the advent of the computer age. At this juncture, it is imperative that the School take decisive steps to strengthen its activities in information science, beginning with a change in its name from the School of Librarianship to the School of Library and Information Science. New appointments should be in the more practical areas of information processing and the possibilities of setting up joint programs with other departments should be actively explored.
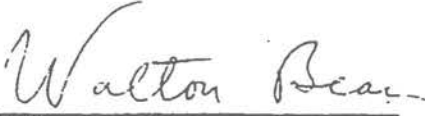
<u>Charge to the Review Committee</u>
for the
<u>School of Librarianship</u>

1. The definition of the field of Librarianship. Is this definition appropriate for the next decade? Is the School capable of seeing 1980's goals? The Council would particularly welcome opinions about the inter-relationships and relative roles of such traditional techniques as bibliography and cataloguing on the one hand, and newer approaches such as "automatic data retrieval" and computerization on the other.

2. The quality and extent of the coverage of the field of Librarianship by faculty in course and seminar offerings, as well as in faculty and graduate student research (via theses and published materials).

3. The School's coverage of the field as revealed by faculty appointments in various areas of Librarianship.

4. The use made of other departments' courses in fulfilling degree require-ments, either within the School's own Librarianship degree programs or via concurrent degree programs with other academic units on the Berkeley campus or on other campuses.

5. The School's success and effectiveness in awarding degrees and in placing the recipients in appropriate professional or academic positions. The <u>subsequent</u> (five-year) employment records of the School's successful degree candidates and their contribution to the field of Librarianship.

6. The quality of professional relations between the School and local, state, and national agencies.

7. What are the pressures on the School (academic, professional, or political which determine its ability to serve as an appropriate member of the Berkeley campus? Are these pressures manageable? If not, what assistance does the School need to manage these pressures, and should the University give this assistance the highest, moderate, or low priority?

8. In your examination of the content of typical Librarianship degree programs (especailly the M.L.S. and D.L.S. degrees) you are requested to assess the consistency of typical students' programs with the time required to obtain the degree--is the program intensely "crowded," loose in content and susceptible to a shorter time or appropriate as it is?

9. Is the advice and counselling of students adequate and timely, from the faculty's, students', and your own point of view?

10. A wide-ranging review of the School's operation, including its resource problems related to faculty, research, and its educational and professional activities, should underpin whatever conclusions are drawn and recommendations made by the Committee.

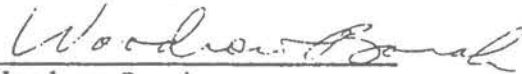11. What is the relationship between the School, the Institute for Library Research, and the University Library?
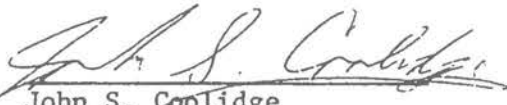
Respectfully submitted,

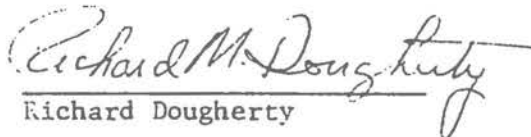_John T. Wheeler, Chairman_

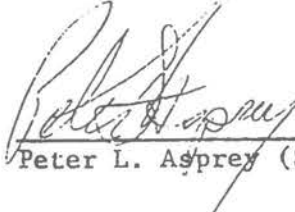_Robert L. Gitler_

Walton Bean

Robert F. Heizer

Woodrow Borah

Vaclav Mostecky

John S. Coolidge

Lotfi Zadeh

Richard Dougherty

Peter L. Asprey (Student Member)