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Library Trends, a quarterly journal of librarianship, provides a medium for evaluative recapitulation of current thought and practice, searching for those ideas and procedures which hold the greatest potentialities for the future.

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Trends in College Librarianship

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Introduction

H. Vail Deale

If years, like earthquakes, were measured on a seismograph, then the quarter century beginning with World War II and ending with nation-wide upheavals on our campuses would register as one of the most turbulent in our history: the omnipresence of the nuclear bomb, the computer, and television; the consciousness of the Cold War and the generation and credibility gaps; the advent or imminent advent of revolutions by colored peoples around the globe; the emergence of the Beatles and Fidel Castro; the assassinations of John Kennedy, Martin Luther King, and Robert Kennedy; the phenomena of Resurrection City and Jackie Kennedy Onassis, the trend-setting disturbances at Berkeley, Columbia and San Francisco State; and the personalities of Eldridge Cleaver and Billy Graham. It is a complex and changing world; the old order is collapsing while nothing is rising to replace it. Change is especially evident in higher education, and to some extent within academic librarianship.

Planning a special issue on contemporary trends in college librarianship reminds me of a favorite quotation from Thoreau: "If you have built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them." Before one can build castles for the future, one must survey the foundations of the past. Or perhaps we may distort the words of Thoreau: before we can build solid foundations for the future, we need to dream of all the possibilities and options open to us. Contributors to this issue have summarized some of the major areas of academic librarianship, especially as they apply to college libraries, and have then proceeded to suggest possible directions which these areas may take in the next quarter century.

The three R’s of contemporary education have been riots, responsiveness, and relevance. Student riots and demonstrations have been
straws in the wind: protests against authoritarian and traditional modes of operation which, in the not too distant future, may drastically affect such areas as curricula, course content, and the functions of libraries. The response of administrators and faculty has been varied, and not always sympathetic to the underlying motivation of the protesters. Related to responsiveness is the question of relevance. Even our best young people today are dubious about the kind of education which they are receiving, and, as the Cox Commission Report, *Crisis at Columbia*, notes: "Too little of the whole elaborate paraphernalia of academic activities appears to be concerned with the conduct of a man's life."\(^1\) The more vocal and energetic students are forcing a change from traditional patterns to innovative, imaginative and relevant concepts of learning.

In the United States, growth and expansion are taken for granted. Even so, the recent growth of our colleges and universities has been such that it represents a phenomenon. "Out of every 25 young people of college age in 1900, only one was actually in college. By 1930, one in eight in that age group was getting a college education. Today, the number is one in three. And it is now predicted that in the next 25 years, every other person in the college age group will be a college student."\(^2\) James F. Govan, Librarian of Swathmore College, sets the stage for subsequent contributors to this issue with his historical essay on the development of collegiate education in the United States. Concentrating upon developments in the first half of the twentieth century, Govan points out, that, regrettably, one of the salient characteristics of the period prior to World War I was the virtual absence of any discussion of academic libraries. Reviewing innovations in higher education over the past fifty years, he refers to the influence of such leaders as Flexner, Meiklejohn, Carnegie, Randall, Hutchins and John Dewey. While emphasis is upon the liberal arts institutions, the junior college and the cluster college concept are not ignored. Govan's concluding discussion is devoted largely to the aid and support which academic libraries have enjoyed as a result of the federal legislation of the sixties. On the eve of the Higher Education Act of 1965, seventy-five percent of all undergraduate libraries failed to meet the low minimum of American Library Association standards. Govan feels the library has a vital role in the college of the future, and supports the library-college concept discussed in the final article of this issue by Sister Helen Sheehan of Trinity College, Washington, D.C.

No more vexing problem confronts today's college librarian than
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how far he should go in the mechanization of library services. Frederick G. Kilgour, Director of the Ohio College Library Center, contends that "Technological developments . . . have relieved man of the full-time occupation of staying alive, and have made it possible for him increasingly to enjoy his human qualities." Applied to libraries, he sees little that has been accomplished which would significantly increase the productivity of either library staff or patrons. It is Kilgour's thesis that the computer offers the major hope in humanization of the academic library, although it may not be fully realized for another quarter century.

"Ideally," says Kilgour, "the college library should reorganize itself for each individual user." Such a goal will not be reached suddenly but must evolve, and efforts to define and solve the problems of computerization must continue if the ultimate goal is to be achieved. In the course of such evolution, computerization should be designed in such manner as to relieve the library staff of many mechanical, repetitive routines. Application of computers to bibliographic compilation and descriptive cataloging are examples which Kilgour discusses. Kilgour concludes his article with this testament of faith: "Sophisticated computerization . . . holds out the hope of humanizing . . . libraries before the end of the century."

Due to the changing concepts in higher education, college library buildings constructed since World War II have attracted attention far beyond the campus. Donald E. Thompson, Librarian at Wabash College, traces the evolution of college library architecture over several centuries. From frequently dull and uninviting mausoleums of the past to the innovative and exciting learning centers of the present, he follows the change from monumental exteriors, with emphasis on "form," to handsomely planned interiors, with their emphasis upon "function." Though the trends of the nineteenth century continued into the twentieth century, change began to take place in the interim between the two world wars.

It was not until the advent of the thirties, however, and the concept of modular design, that college libraries received serious attention by architects and librarians. Following World War II, as Thompson notes, "The idea of modular planning was becoming recognized as an excellent way to provide both flexibility and beauty." The advantages of modular design are stressed along with the shift from large reading rooms to informal lounge areas, alcoves, and the use of individual carrels. Changes in shelving concepts, seating patterns, and the place
of audio-visual facilities are given brief consideration. Thompson supports the idea of the planning team, the close working relationship between architect and librarian, and the now widely approved use of consultants.

The affect of technology and computers is not overlooked as Thompson urges college libraries to look to the future and seriously consider the role of mechanization in planning new buildings. "It seems probable," he says, "that the innovations of the next few decades may be even greater because of automation, mechanization, and the information explosion." Rapidly changing developments in microphotography will drastically affect the future of academic libraries, according to Thompson. Though he devotes considerable space to the subject, he concludes, with other librarians, architects and information technologists, that "for at least the next twenty years the book will remain an irreplaceable medium of information." In spite of current developments, the college library building in the last half of the twentieth century will not differ greatly from those now being planned.

Several years ago, Flora B. Ludington, then librarian of Mount Holyoke College, said: "A good collection represents the work of many minds and hands, for the faculty members, who are both the most consistent and insistent of library users, share with the librarian and his staff the responsibility of assuring the presence of meaningful books in the library." As a result of the proliferation of materials of all kinds, the college librarian of the seventies will find the building of an adequate and balanced collection a major problem. In addition, according to Sister Claudia Carlen, he "must also cope with a variety of new media and forms of publication." Though most librarians are familiar with the scope and variety of materials currently demanded, Sister Claudia examines these resources in some detail. From a discussion of microforms and other non-book resources to the changing patterns in college curricula, she moves directly into the question of how the average college administrator can manage the selection and acquisition of materials given the limitation of funds, staff and space common to many of our academic libraries today. Availability of federal funds, though welcomed by most institutions, has often only complicated the problem for many.

Perhaps the most significant section of Sister Claudia's article on expanding resources is that given to the consideration of book selection aids available to the college librarian. After mentioning the standard tools, Sister Claudia discusses the new developments in micro-
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photography and electronics which are making possible greater access, to, and dissemination of, all kinds of printed materials. She concludes that “only through information networks will libraries be able to overcome the problem of expanding resources, increased production costs, and the administrative burden of handling the world’s information.” Several such networks now being developed are discussed, and we are left with the warning that academic librarians will not be ready for the future unless they move forward with the changes already taking shape.

In a lucid article on the implications of federal legislation for academic libraries, Edmon Low delineates the background from which specific legislative acts develop indicating the complexities and pitfalls that may frequently transpire. To predict the outcome of any specific legislation, he contends, one needs “an exceedingly clear crystal ball.” Of particular significance to college librarians and administrators will be Low’s survey of recent federal legislation affecting libraries. From copyright, obscenity and censorship, vocational education, to appropriations for libraries under various acts, approximately 10 percent of all legislation in the Second Session of the 90th Congress in 1968 had some implications for libraries. Five of the more important pieces of legislation are then discussed in detail: the Higher Education Facilities Act of 1963, the Higher Education Act of 1965, the Library Services and Construction Act, the Depository Library Act of 1962, and the Vocational Education Act. In the concluding pages of his informative article, Low reminds us of “the implications of legislation proposed but not yet passed, or of that only in the ‘talking’ stage” and mentions several examples of what may be expected in the future. Low leaves us with the warning that federal programs for college libraries, based upon our experience to date, indicate some hazards as well as some obvious benefits. For the college librarian who wants a brief overview of federal activity in the area of legislation for academic libraries, this article is the answer.

One of the persistent challenges facing college libraries has been the use of resources and services by persons not affiliated with the institution. The pressure in the Chicago metropolitan area, for example, became so great in the mid-sixties that a conference was called to consider the problem of student use of libraries. E. J. Josey, a former college librarian, now with the New York State System, considers not only the community use of academic libraries, but what might be done to alleviate the problem. After enumerating the reasons
why needs of undergraduates are increasing, and pointing out the inadequacies of many college collections—particularly in the area of current periodical literature—Josey turns to a consideration of the individual who is pursuing his education through adult education programs, extension courses, self-study, etc., who must rely upon local library resources.

One category unfortunately slighted in this area is the student below college level who seeks to make use of academic libraries because his own school or public library collection is inadequate. Although the first to admit that the college library's primary obligation is to its own clientele on campus, Josey's major premise is that in the future college libraries must expect to serve those in the community who have no access to adequate library resources or services. The crux of the matter is, as Josey contends in his article, that there must be coordination and cooperation among all libraries within geographical proximity of the college. While it is currently the students who are aggravating the problem, librarians should not forget that there are community leaders (teachers, clergymen, engineers, etc.) who also need access to resources which few public or school libraries can provide in sufficient variety or depth.

In his capacity as chairman of the ACRL committee on the community use of academic libraries, Josey has found that an overwhelming majority of college libraries permit use of resources within the library, but that the percentage drops considerably when it comes to loaning materials. The only real solution, he contends, is a greater degree of flexibility and cooperation, such as the experiments being carried on in various states. "Through new interrelationships... college libraries can become a part of the solution for providing ease of access to research library materials." He then proceeds to enumerate some of the various ways in which coordination and cooperation can be carried out: 1) cooperative acquisitions programs; 2) union lists of serial titles; and 3) joint storage centers. Josey's article can be profitably read in conjunction with the one by Richardson on the trends in cooperative ventures. Perhaps the wave of the future will be a universal library credit card that can be presented at any library in the United States.

Librarianship's paramount problem since World War II has been manpower; academic libraries have shared in the problem, often finding it difficult to adequately fill staff positions. As a matter of practical expediency, as Helen M. Brown, Librarian at Wellesley Uni-
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versity, points out in her provocative article, personnel has been a major concern of administrators. In recent years they have had to take a serious look at the organization of their libraries as well as the performance of their personnel. “Library administrators have been too complacent, too restrained by local circumstances, or too little possessed of the management viewpoint to base their staff organizations on actual job analyses. In her article, Brown considers five prevailing forces which interact and reinforce one another: number one is professional standards.

According to the Asheim proposal, “Education and Manpower for Librarianship, First Steps Toward a Statement of Policy,” the college librarian should possess a liberal arts education; a grounding in the basic principles, theories and their practical applications; a knowledge of human relations, psychology and principles of administration; additional concentrated study in one or more academic disciplines; and knowledge of scholarly and research materials. Only by a continued study and revision of our professional standards can we hope to achieve the status and professionalism which we contend we deserve.

A second prevailing force, according to Brown, “is the increasing democratization of the policy-making function.” As our colleges and universities are experiencing drastic changes in administration, communications and control, so in our academic libraries we must be ready to examine and evaluate traditional concepts and recognize the ultimate decentralization of the policy-making function. A third force in planning the future is one consistently mentioned by nearly all of the contributors to this issue: “the rapid advance of technology and its successful application to solving problems of libraries.” Although the cost is currently too high for the average college, the capability of the computer and what it can do for the academic library make it a very live option in the future. “College library administrators,” for example, “will need to be alert for the point at which a computerized operation could profitably replace personnel on their technical services staff.”

Brown’s fourth prevailing force affecting the personnel of academic libraries is the involvement of the federal government in the support of libraries, especially through the provisions of the Higher Education Act of 1965. The fifth force affecting personnel “is the growing urgency for granting academic status to college and university librarians.” Brown indicates that the professional groups in the American Library Association concerned specifically with the problem are closely watch-
ing the trends in this significant area. After pointing out the discrepancies in recent surveys, she concludes: “There is no unanimity among librarians with respect to academic status,” but if the emerging pattern of education for librarianship becomes effective in individual institutions, the traditional resistance of administrators and faculty toward the granting of equal status to professional librarians seems likely to disappear. While it is inevitable, says Brown, that some college librarians will resist changing the role of the librarian, it is the responsibility of the college library administrator to urge that changes be made if we expect to sustain our role in higher education.

Although one of the challenging and far-reaching aspects of academic librarianship over the past decade has been the bold ventures initiated in the name of cooperation, including the sharing of resources and services among groups of colleges, not all librarians will agree with Bernard Richardson’s assessment that there have been few examples of success. Formerly the Director of Library Research for the Associated Colleges of the Midwest, Richardson is now Director of Libraries at Northern Arizona University. The restrained tone of his article is perhaps an antidote for those generally willing to give high praise to academic administrations. There must always be a first step, and perhaps Richardson’s article will be of assistance to all who are presently engaged in, or who are about to engage in, a cooperative project. He examines a representative sample of cooperative programs among groups of colleges, and finds them wanting.

Early in his article, Richardson discusses the factors which he feels have influenced the development of college libraries as they have played out their role of the neglected stepchild in higher education. “The proliferation of programs, departments, and courses, the creation of entirely new areas of instruction, and, perhaps the most dramatic and crucial, the efforts to build and to maintain science departments which will attract and hold students and research-oriented faculty—these are obvious examples of developments which require enormous investments of library time, money and imagination. The more dynamic the college, the greater the effort to remain on top of problems, and the more pronounced becomes the library’s lag behind program demands.”

As college administrations strive to swim against the tide of extinction, reaching out with bold new experiments, and seeking for new sources of revenue, various types of cooperative programs are explored. Such programs often involve some attempts at interlibrary
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coopération. According to Richardson, “Trends in cooperation today
do not indicate any revolutionary or imaginative approaches.” In his
search of the literature he claims to have found no new trends in
cooperative ventures, “the familiar areas and efforts were proliferating
as a reaction to the possibility of obtaining funds; and some sophisti-
cated automation hardware was being tested.” Library literature does
offer the discerning librarian descriptive articles on a national network
of bibliographic centers, and illuminating discussions of individual
programs now in operation in various parts of the country. Richard-
son’s article, however, offers a word of warning to the overly optim-
mistic.

Despite the foibles and failures to be found in college librarianship,
innovation and imagination have marked progressive librarianship.
The final article in this issue looks to the future with faith and optim-
ism as Sister Helen Sheehan of Trinity College, Washington, D.C.,
considers the library-college idea. Nearly thirty-five years ago, Louis
Shores wrote: “The material unit of cultural education is the book . . .
the library is the liberal arts laboratory. Only the conception
of the library as the college and the college as the library remains
prerequisite to the birth of the library arts college.” She develops
the history of this concept in the manner of the artist, and evaluates
its place in the future of college librarianship. Examples of successful
experimentation with the library-college idea, and the birth of a new
journal, The Library-College Journal, which keeps abreast of develop-
ments in this field are described.

Recognizing the practical difficulties involved, Sister Helen admits
that: “A proposal as radical as this one would affront the most liberal
of professors. Pedagogically, there simply are not enough potential
teachers prepared both in a subject field and in bibliographical ex-
pertise.” The only solution is in the preparation of personnel for the
next academic generation. Sister Helen emphasizes that “The concept
of the library-college is the logical development of previous efforts to
center education in the learning process, rather than in the teaching
process, to encourage initiative and independence . . . and bring the
student to grips with the original thought as expressed in books and
other media.”

In addition to the new experimental models described, Sister Helen
mentions individual projects within the framework of traditional col-
leges which are the result of the library-college concept. It was an
English librarian, Norman Beswick, who observed: “perhaps the main
value of the Library-College movement is that it provides a speculative model for use in our thinking." Whether one uses the library-college as a model for thinking or as a model for action, it cannot be ignored in evaluating the present condition of college librarianship within higher education.

As contemporary man gropes for solutions to the problems of peace, population and protest—and all the lesser manifestations of turbulence in the twentieth century, one fact is certain: he will need more, and not less, of the accumulated wisdom of the ages. College librarianship will have a significant role to play in the quest.

References

3. Ibid., p. 6.
When James Bryce undertook to describe American higher education in his classic of the late nineteenth century, *The American Commonwealth*, he was clearly torn between the fact and the potentiality. Conceding that American colleges were more like European secondary schools than like European universities, he nevertheless believed that of all American institutions, they were making the greatest progress and had the brightest future. "The higher learning," he bravely concluded, "is in no danger." ¹

Certainly the American academic scene was a lively one when this century opened. For one thing, the variety and number of institutions must have struck an Englishman with great force. Unlike the periodic reformers of Oxford and Cambridge, American educators had traditionally founded competitive institutions when confronted by problems in an older one. Thus, there were 977 institutions of higher education in America.² Small wonder that 80 percent of the colleges founded before the Civil War had not survived and that in 1900 the nation was again peppered with colleges of slight value and still slighter financial support.

The number of undergraduates increased from 232,000 to 346,000 between 1900 and 1910,³ but neither this growth nor the variety of the institutions produced heterogeneous student bodies. One acute historian has described the undergraduate population of 1900 as "a parade of Anglo-Saxon names and pale freshly scrubbed faces." ⁴ Coeducation, not democratization, accounted for the increase in students. Women, who had first gained admission to college at Oberlin in 1833, had made their way rapidly and by 1900 constituted about 40 percent of American college students—a level they were to maintain, with occasional fluctuations, thereafter.⁵ Catholics, Jews, and Negroes were much slower to appear in significant numbers.

Negroes, in particular, could seldom aspire to a higher education;
and when they did, they found themselves compelled to attend segregated institutions, principally Southern colleges founded by Northern philanthropic foundations. The education they received usually lacked as much in relevance to their needs as it did in quality. Requiring training to better his economic opportunities, the Negro normally received poor instruction in a heritage in which he had no part and little interest.

Discontent with even the best institutions in the country was apparent in 1900. Instruction, curriculum, and the goals of higher education all came under fire. Educators complained that a materialistic culture and an idolization of the self-made man, combined with an imbalance in individual and regional distributions of wealth, produced students with little incentive for education. Football, fraternities, and social life overshadowed academic pursuits. But, clearly, part of the difficulty lay with the instruction. Lecturing to large classes with little or no discussion was a fairly recent and exciting innovation in the more progressive colleges, while the more conservative ones retained the older “recitation” method. Under these conditions, even the traditional stimuli, the threat of low grades or the rewards of high honors, left the majority of students unmoved.

The introduction of the lecture was one of several results of the influence of German universities. By the end of the nineteenth century, the majority of innovative educators in the United States had had German training. The German universities had opened American eyes to an education responding to the needs of society, without the restrictions of the traditional curriculum. Freedom to learn anything, to teach anything, and to organize any body of knowledge into an academic discipline was a revelation to scholars trained in rigid emphasis on mathematics and the classical languages. It opened the door to professional education, to research supporting it, and to a substantial proliferation of disciplines and specialties. The amateur gentleman-scholar began to give way to the Ph.D., and the stronger American colleges began to reorganize themselves along German lines as universities with graduate schools.

Following the German precedent of flexibility, the Americans had discarded the rigidly prescribed curriculum. Gradually the elective system had filtered down from the senior to the freshman year. Under the powerful influence of President Charles W. Eliot of Harvard, it had spread across the country and was now the common practice of most colleges. But something was lost in the translation. The Lehr-
freiheit of German students was not precisely equivalent to the elective system of American students. American undergraduates, with less rigorous secondary educations, choose courses at random, with no regard for a coherent program. The controversy which arose from this “cafeteria style” curriculum was unquestionably the principal issue in American higher education in 1900.

If the elective system was the eye of the storm, its periphery was filled with flying charges about the relative merits of universities and colleges, professional and liberal education, research and teaching, lecturing and tutoring. In 1908, Abraham Flexner published a devastating attack on German influences on American colleges. Flexner drew a sharp line between undergraduate and graduate education, insisting that lower level instruction in colleges had become so specialized that students could no longer obtain a broad foundation. Teachers trained as specialists and promoted on the basis of research taught as if their students were budding specialists. And lecturing to classes, a mode of instruction eminently suitable for advanced students, deprived the undergraduate of the essential contact with the teacher. In Flexner’s view, all these trends were transforming the college into a graduate school.

Flexner’s book appeared just as an era of reform began. Eliot retired from Harvard, and his successor, A. L. Lowell, immediately began to restrict the elective system. A movement towards “groups” from which students could select subjects, gaining both diversity and concentration, began to develop until the present-day “major-minor” system became common. Woodrow Wilson at Princeton, before his defeat over the eating clubs and the autonomy of the graduate school, introduced the “preceptorial system,” a tutorial arrangement clearly derivative from English, not German, universities. Big lectures did not disappear, but instruction rested chiefly on student reading on the subject of the lecture, supplemented by regular conferences with a preceptor. Significantly, the new program was a success from the start.

Leadership in this period thus came from the more celebrated colleges which had evolved into universities during the past generation. Even the more prestigious colleges waited upon the new universities for guidance, and the rank-and-file colleges often were unaware of the pioneering of others. The majority of college students attended small denominational institutions across the country, continuing to enjoy the social life and to labor under the educational pri-

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tiveness which was meeting such strong and imaginative opposition in the Northeast.

Another salient characteristic of the period is the virtual absence of any discussion of libraries. Regrettably, this oversight is fairly typical of the literature on higher education in America in any period; but it is startling that in this era of questioning and reform, with its new insistence on student reading, there is no significant mention of academic libraries. The fact is symptomatic, and the neglect was visible in the meager collections of even the largest institutions in the country. In 1900, Yale's library had only 285,000 volumes and Columbia's, 295,000. Buildings were no better, designed as they were for impressiveness rather than for function. The attitude towards libraries of the time appears in its purest form in President Eliot's 1901 annual report which suggested that Harvard's library should avoid the expense of a new building by throwing away those books it could not house.

World War I brought a pause in experimentation in higher education, but its end brought a new spurt of energy. Lecturing to large classes had become almost universal. The controversy over the elective system had largely passed, and the universities, along with professional and graduate education, were firmly established. The student population had doubled since 1900 and now stood at more than 500,000, representing over six percent of the college age group. However, student bodies still contained few black faces, and those rare Negroes fortunate enough to attend college still had, for the most part, to seek out the all-Negro institutions.

This great expansion in undergraduate population raised again two basic problems posed by Flexner about the nature of collegiate education. The first was the place of the college between secondary and graduate schools. The second was the challenge of instructing students in a common heritage in spite of the progressive fragmentation of knowledge. How could the college provide such numbers of students the individual instruction that Flexner had described? And how could it assure the general education which should precede specialization when, as Flexner had said, undergraduates were taught by specialists bent on training more specialists?

One solution that gained support rapidly was the junior college. Two-year institutions had first appeared in 1902, but their increase was not dramatic until President William R. Harper of the University of Chicago began to advocate their establishment in universities. Seizing
on this idea, state systems like California and Michigan gradually began to provide widely dispersed junior colleges which were nearer the student's home and thus cheaper to attend and which could feed students to the state universities for their last two years. In 1922, there were 207 junior colleges with 16,000 students. Five years later, there were 325 with nearly 36,000 students.  

The idea of the junior college moved into the liberal arts college with the presidency of Alexander Meiklejohn at Amherst. To restore the community of studies, Meiklejohn installed a prescribed course for the first two years. After a successful examination on this "junior college" program, the student moved on to the "senior college" for his last two years, with a concentration in one area or subject, largely through independent reading. Writing of this last, Meiklejohn said the only question to be asked about a college graduate was "Does he in his living depend upon books and does he use them effectively? . . . Is he an intelligent reader?"  

Meiklejohn became Amherst's president on the eve of the war, but in 1923, the Board of Trustees, influenced more by local personalities and politics than by educational philosophy, removed him from office. He moved to Wisconsin as Dean of the College and continued to pursue his original idea, with some modifications. His "experimental college" there attempted to marry instruction in the Western heritage to instruction in contemporary problems while retaining the junior college concept. It had a required curriculum which consisted of the study of an entire civilization of the past in the first year and a similar study of a modern civilization in the second year. Without any explicit connections between them, these courses were to lead the student to think independently of similarities and differences in the two subjects.

Meiklejohn was certainly a seminal influence in the period, but he was by no means alone. A number of distinguished colleges began honors programs with an eye to developing more independence and seriousness in their students. Bryn Mawr, Vassar, Smith, Wellesley, and Reed, were leaders in this movement. But Frank Aydelotte established unquestionably the best known and most influential program at Swarthmore when he became president there in 1922. Students entered honors at the beginning of their junior year and took a series of eight seminars on which they stood examinations by visiting scholars before graduation. Significantly, the student "read" for honors, as the Oxonian "reads" for his degree. Aydelotte had taken the flood of new students
after the war as a threat to quality education in America, had seen the wide variety of their abilities, and had devised an education to salvage the dedicated and more able students from the slower pace of their fellows.17

The innovations of the 1920’s, unlike those before the war, came from the presidents of the liberal arts colleges themselves, not from university leaders. Understandably, they stressed the individual attention which the small liberal arts college could give to the student and focused attention on encouraging student initiative. This last point, reflected in the approximately seventy-five programs of independent study which sprang up in colleges after 1920,18 was one more effort to make undergraduate education distinctive from secondary education. In 1928, Aydelotte confidently—and with some accuracy—predicted that colleges of the next generation would be still more distinctive from secondary schools and hence would “assume more maturity in the student, allow him more freedom and insist upon more serious work.” 19

Attention to the student’s self-education brought renewed attacks on the lecture as an instructional method—not, as Flexner suggested, because it was designed for advanced students, but because it was not sufficiently intensive.20 This attack, in turn, prompted a more direct emphasis on the use of the library as an instrument of self-instruction. In fact, Silas Evans, President of Ripon College, anticipated present-day ideas and terminology when he declared, “The library is the container of the three great factors of education—the teacher, the student and the book. It would be more to the point to speak of the library college than of the college library.” 21

In 1928, the Carnegie Corporation, dangling grants-in-aid before college administrations, launched a program to encourage the integration of the library into instruction in liberal arts colleges. The Carnegie program eventually produced a series of studies of college libraries, including Charles Shaw’s List of Books for College Libraries.22 One of the more informative of these studies, The College Library by William Randall, was an examination of the contemporary state of college libraries. Randall, then associate professor of Library Science at Chicago, began his study based on personal visits as well as questionnaires to 200 college libraries in 1930, and his book appeared in 1932.

The situation he described was scarcely encouraging. Despite the change from the “textbook education” which was supposed to have prompted the study, he discovered that students simply did not have
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even a rudimentary knowledge of library use. The book collections were poor: over half of the two hundred colleges examined had less than 30,000 volumes, most had only forty to sixty volumes per student. Nor was there any evidence of rational, systematic plans for the development of book collections of the sort the "Shaw List" attempted to encourage. Finally, the amount of support was woefully inadequate. Even in an age when the average cost per acquisition was $2.54, an average total budget of $9,100 and an average expenditure on books, periodicals, and binding of $3,900 was not sufficient to provide appropriate services and collections.23

Randall found a wide variety in the size and quality of library staffs, which seemed to be determined more by the size of the book collection than by the number of students to be assisted. Inadequate staffing was apparently a matter of indifference to many college administrators, who made a practice of hiring librarians recently graduated from library school at a low, fixed salary, with the intention of replacing them by the same method when they moved on to more rewarding positions. Randall concluded that staff emphasis on books rather than students, reflected in fastidious concern for cataloging and classification and neglect of public services, was due to the library schools. He made the dire prediction that college libraries would fail, no matter how precise their technical skills, if they did not acquire the right books and did not assure contact between the student and those books.24

Half of the buildings visited had stack capacities of less than 30,000 volumes, and the average capacity was just under 50,000 volumes. Although there had been building spurts in the years from 1904 to 1908 and again from 1924 to 1928, almost all the buildings then in use, Randall reported, had the common fault of a single reading room which had to serve as reference room, study-hall, and periodical room. In many, the same room contained the circulation desk as well. Yet, for all this cramping of public spaces, Randall found that the buildings' provisions for cataloging and administration fell into two categories: inadequate and none. The one hopeful feature was that half the buildings now provided for open shelves, although most still retained the traditional stack block or room.25

In view of his findings, it is not surprising that Randall ended his book with a set of standards covering all phases of library work, followed by a peroration calling for more attention to and expenditure on college libraries. With these guidelines in mind, presumably, the
trustees of the Carnegie Corporation made grants to eighty-three colleges totalling $1,011,000 for the improvement of book collections in the lean year of 1933.28

In the disintegrating world of the depression, education split into factions over the old question of whether collegiate education should perpetuate traditional values to counterbalance the accelerating fragmentation of knowledge or address itself to urgent contemporary problems. The controversy polarized around the ideas of John Dewey, who had been an influence in American education since the beginning of the century, and Robert Hutchins, the young President of the University of Chicago. In brief, Dewey pressed the view that education was problem-solving—a part of life—and should address itself to the problems of the contemporary day and society. In contrast, Hutchins defined education as the study of the problems which had been analyzed since the beginning of history and the unchanging truths which he saw embodied in the “classics.”

Both men desired a reorganization of curricula. Hutchins implemented his ideas in the program at Chicago, where he reorganized the curriculum into four large blocks—biological sciences, physical sciences, social sciences, and the humanities. Ordinarily, the student was to spend his first three years on these broad studies and his fourth in special tutorials, although he could advance through any stage by examination. Dewey called for the reorganization of the curriculum around problems or situations, a constant re-ordering of contemporary experience, instead of traditional classifications. With no administrative position, he had to rely largely on the experimental colleges of the 1930’s to implement his ideas. Several new colleges—Black Mountain, Bennington, Sarah Lawrence—clearly showed his influence, while two older ones, Goddard and Bard, reorganized along the lines of his ideas.

Ironically, Dewey’s own institution, Columbia, became closely associated with the general education which Hutchins was at pains to assure. During World War I, Columbia established a course in contemporary civilization which cut across departmental lines and engaged instructors from several disciplines. Later, in the Meiklejohn tradition, it became a two-year sequence, with the first year devoted to historical studies and the second to current problems. Still later, similar sequences were created for the natural sciences and humanities. Columbia thus became closely identified with the general education movement, and its program was widely copied.
The Hutchins-Dewey controversy was still very much alive when World War II broke out, and a wartime truce was declared as colleges struggled to survive the absence of male students, with the help of training programs by the armed services. A reconciliation of the conflict was hoped for in the study of Harvard’s curriculum which appeared in 1944, but the results were disappointing. The famous “Red Book” was more eclectic than reconciling, and educators found themselves without a clear guide to the future in this regard.28

The extensive report of the Truman Commission on Higher Education in 1947 was no more helpful on curricular questions. Rather, it diverted attention to equally pressing but more concrete problems. By the time of its publication, institutions of higher education were facing the hordes of postwar students, including the veterans attending college on the G.I. Bill. There were 2,400,000 undergraduates in 1948, an increase of 1,000,000 over 1940.29 Even so, the Commission reported that one-third of the college age population was capable of doing college work and that the financial support necessary to eliminate the waste of those unable to attend could have only one possible source: the federal government.30

Liberal arts colleges constituted a sizeable portion of the total resources for higher education in the country. In 1948-49, there were 453 independent liberal arts colleges accredited. Of these, nine out of ten were under private control, and eight out of ten were church-affiliated. State colleges, which had formerly been exclusively teachers colleges, had been swelling the ranks of the public institutions during the 1940’s, as they adopted four year liberal arts programs.31

The new demands on higher education inevitably put a strain on library resources. The war introduced a sharp increase in the demand for librarians, which has continued until the present. Supported by this unprecedented need for its services and recognizing the growing complexities of library work, the profession upgraded its professional education from the bachelor’s degree to the master’s. Moreover, cooperation between libraries for further exploitation of total resources increased, and librarians called on the technology of microreproduction to overcome deficiencies in collections at a minimum cost in space.

Innovations in building were perhaps most obvious. The long delays in building because of the depression and the war and the developments in construction techniques which occurred during the war made a natural prelude to a new era of library buildings. The most influential new idea of the period was modular construction, which first
became prominent around 1940. Flying in the face of the traditional belief that high vaulted ceilings were essential to large spaces, the modular building was based on uniform cubic units put together to form the whole structure. Its greatest advantage was that it permitted flexibility, since each of these units could be converted to other functions by simply moving partitions. Moreover, it provided convenient methods for ventilation, lighting, and heating, through its use of ductwork. The end of the war also brought fluorescent lighting and air conditioning, two features which had been used sparingly in the pre-war period, into much wider use in conjunction with modular construction.

The years since 1950 have been notable particularly for the changes in the undergraduate population. From the 1950 total of a little less than 2,000,000, this population had increased to an estimated 5,800,000 by 1967. Furthermore, the homogeneity which once was unmistakable has steadily declined. Catholics and Jews had found free admission to all institutions after World War I. Now a series of Supreme Court decisions, culminating in the outlawing of segregation in education in 1954, began to open the doors first of graduate and then of undergraduate schools to Negroes. However, the old problem of preparation for college, which white students gradually overcame in a half century, continued to plague the Negro student. As a result, half of the Negro undergraduates still attend all-Negro institutions, and the other half at present constitutes only 2.5 percent of the total student population, according to the best estimates.

These years also witnessed a renewed interest in school curricula and new methods of instruction; so that not only did more high school graduates enter college, but they were better prepared for college work. Advanced placement and advanced standing, with accompanying reductions in the undergraduate program, became normal practice. At the same time, it became apparent that the bachelor's degree was no longer terminal, and an increasing proportion of undergraduates planned to go on to professional or graduate school.

Challenged from below and above, college educators once again became concerned about the place of the undergraduate college and liberal studies in higher education. Once more it was suggested that liberal arts colleges were either high-powered secondary schools or merely preparatory schools for graduate schools. Nationally known scholars from universities did not hesitate to predict their virtual de-
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mise. College administrators themselves were quick to admit the almost insurmountable problems of competing for funds when graduate schools could so much more easily demonstrate a direct benefit to industry and government. Competition with larger institutions for faculty intensified. And perhaps in the cruelest blow of all, students began to complain that introductory and survey courses were simply repetitions of their high school work.

As in the past, the colleges have responded positively. In the last decade, they have introduced a wide variety of curricular innovations, most of which stress some form of independent study. These curricular reforms have had the effect of providing the student more stimulation, of fashioning his education more precisely to his individual needs, and, hopefully, of increasing the time students can spend in learning without faculty supervision. Programs in Monteith College, New College at Hofstra, Florida Presbyterian, Grand Valley State College, Florida Atlantic, Goddard, Colby, Macalester, Earlham, Bard, New College (Florida), and the University of California at Santa Cruz—to name a few prominent instances—have programs in which independent study is an essential ingredient.

No longer do only the better students have the opportunity for independent work, as in the honors programs of the 1920's and 1930's. Students of all levels of ability are now undertaking self-education successfully. Nor does independence today mean the simple attachment of a research project to the normal academic program. In addition to tutorials, student-directed seminars, and reading courses, colleges now are experimenting with optional class attendance and credit through examination.

Subject matter has changed no less than academic regulations. Interestingly enough, while the pressure for specialization continues to be great, the new, experimental colleges have clearly preserved the ideal of a broad, liberal education. But they have found new approaches to it. The traditional preoccupation with covering the entire subject field, however superficially, has given way to narrower studies in depth. Interdisciplinary majors have developed, and area studies have become common. In this second group, non-Western studies have now become as available on many college campuses as they once were only at the large universities. At the same time, colleges have admitted the study of situations closer to home, permitting students to use local communities as laboratories in an effort to expose them to education as a continuing experience outside the groves of Academe. These new
approaches may yet bring a resolution to the Hutchins-Dewey conflict.

While all these innovations have been feasible because of the size
of college student bodies, the advantages of smallness have always
carried with them distinct disadvantages, as we have seen. To over-
come these drawbacks, the idea of cluster colleges, first attempted at
Claremont College in 1925, has gained much recent support. The
cluster college consists of a group of small, virtually autonomous col-
leges in league to provide the benefits of a larger institution’s faculty
and facilities. This pattern has appealed particularly to large pro-
gressive state systems which must accommodate large student bodies.
There are now at least fifty examples of this ingenious structure.86

Much the same sentiment has been behind the growing tendency
for intercollegiate cooperation. Large regional organizations have
grown up since World War II for the sharing of problems, suggested
solutions, and, on a limited scale, facilities. Professional cooperation of
various sorts has long been part of American academic life, but inter-
institutional cooperation for common goals is now at a level never
reached previously and is still growing. It is one of the most promising
phenomena of the contemporary educational scene.

These recent changes certainly indicate a viable and active com-
munity of liberal arts colleges. And yet a recent contributor to the
Journal of Higher Education complained that most colleges and uni-
versities adhere to the system of departments, credits, lectures, and
examinations, devised around 1900 and pointed out the paradox of
this conservatism in institutions which generate much of the knowl-
edge that causes change.87 Both assertions seem valid. For American
higher education continues to encompass a wide range of quality and
structure. Furthermore, this variety will unquestionably be with us in
the foreseeable future, if one authority’s estimate that there will be
500 to 1000 new institutions by the end of the century proves true.88

It is fairly clear that, as the Truman Commission indicated, the
federal government will have to play a significant role in the support
of these colleges. Federal support in one form or another has been a
part of American higher education since the passage of the Morrill
Act of 1862. It has been particularly important since World War II and
the passage of the G.I. Bill, and in the last decade, it has become a
permanent feature. Beginning with the National Defense Education
Act of 1958, there has been a flow of legislation supporting higher
education which has reached new dimensions in the last five years.
Whereas government support for higher education amounted to ap-
proximately $20,500,000 in 1930 and nearly $39,000,000 in 1940, it has been estimated that expenditures under the National Defense Education Act alone had reached $2,800,000,000 by June, 1968.89

Academic libraries have received substantial amounts of this support. In 1963, the Higher Education Facilities Act provided for federal grants and loans for construction of academic facilities, and it was estimated that libraries would account for $669,000,000 under this legislation by the end of 1966.40 In 1965, Congress passed the Higher Education Act, covering a wide variety of library concerns from buildings to collections, from cooperative projects to library education. Its most widely appreciated provision was Title IIA, under which grants for improving book collections were obtainable. In the first year, fiscal year 1966, the appropriation for these grants was $10,000,000, and, in the two subsequent years, was $25,000,000.

Certainly this expenditure was wise, for on the eve of the legislation, in 1963, seventy-five percent of the undergraduate libraries in the United States failed to meet minimum American Library Association standards.41 Librarians in liberal arts colleges, attempting to keep abreast of the expanding curricula and the new instructional methods of their institutions, have confronted a Scylla of rising book prices and a Charybdis of increased book production. The average book price in America rose approximately 50 percent in the decade following 1957, from $5.29 to $7.99. And the total book production more than trebled in the twenty years from 1947 to 1967, from slightly over 9,000 titles to slightly over 28,000 titles.42 In the light of these figures, it is not surprising that budgetary increases normally do not provide any expansion of coverage of subject matter, so that the addition of new subject areas like non-Western studies has put a severe strain on the acquisitions programs of most college libraries.

These pressures, among others, have inspired renewed interest in interlibrary cooperation. Cooperative efforts to spread the benefits of limited resources have been characteristic of the library profession from the beginning of the century when the interlibrary loan code and the Library of Congress printed cards were the two pillars on which it rested. Now with the report of the President's National Advisory Commission on Libraries (1968), there is hope that eventually a national mobilization of library resources through a bibliographic network will evolve.

Assistance from the federal government has probably had more effect in the construction of new libraries than in any other realm.
Marching hand-in-hand with technological advances, library architecture in the last decade has provided improved temperature and humidity control, better lighting, and greater individual seating. It is revealing that designs of new buildings, in contrast to the buildings in use and under construction when the century opened, reflect the emphasis on individual and independent study, placing the student as near the open-stack collection as possible and affording him relatively secluded space in which to work.

The library clearly has a vital role to play in the college of the future. In fact, the most experimental of the experimental colleges is the proposal of the library-college with its virtual merger of college and library. Here, if anywhere, the student would be the center of education, and the full development of his ability to teach himself as well as of his curiosity could become the actual, not merely the professed, goal of collegiate education. This idea, which was first advanced in the early 1930's, is now gaining more support than ever before and, with its essential consistency with the educational Zeitgeist, may now become a real force among the colleges.

Of late, the proponents of the library-college have put special stress on the use of new media and have begun to refer to the "learning center" or "multi-media center," not the library. Librarians who remain contentedly centered in the Gutenberg Galaxy may find this thinking, as well as the phrasing, offensive. But one has to recognize that many of the new media not only provide an added dimension to learning but are peculiarly adaptable to independent study.

Twenty-five years ago, a college president remarked that the libraries had fought for forty years to get the college out of the library and would fight for the next forty years to get it back. The prophecy has turned out to be true, in large measure, although the basis on which the college returns will be presumably different from the previous basis. But this is not the only point on which we have come full circle. The old quarrel over electives and majors and minors is with us now in the form of disputes over class attendance, grades, and credits. Above all, the problem of general education versus specialization, of liberal arts versus professional education, that concerned Flexner and Eliot, Hutchins and Dewey, now concerns Arrowsmith and Barzun. Plus ça change, plus c'est la même chose.

The difference, perhaps, is that the age when dramatic change flowed from one leader's ideas is over. The Wilsons and Lowells, the Aydelottes and Meiklejohns can no longer wield such wide influence.
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The proper degree of order and design, if it is to come, will have to emerge from the consensus of the academic community. At the moment, while the variety and energy which Bryce praised is still very apparent, the design for a new educational order is still forming.

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Computerization: The Advent of Humanization in the College Library

FREDERICK G. KILGOUR

In 1964, Philip Morse astutely observed of libraries that, "When the collection grows beyond a certain size, or the users increase in number and range of interest beyond a certain degree, there seems to be a sudden change in the character of the library and of its service. The larger mass of material makes it hard for the user to find what he wants and hard for the librarian to keep track of the material, and the larger number of users and their wider variety of interests decrease the personal contact between librarian and user." This paper is concerned with those college libraries whose numbers of volumes and users have enlarged to the extent that personal contact between librarian and user has ceased to exist for a high proportion of users. Indeed, this circumstance does or will exist for every library whose community of users continuously grows and changes.

As size of collection and user group enlarges, college libraries become monolithic arrangements of volumes, catalogs, and indexes. Ideally, books and journals should be arranged, cataloged, and indexed for an individual user, but as the number of users expands, it becomes increasingly difficult, and then impossible, to classify, catalog, and index for individuals. Instead, volumes are processed on the basis of content rather than for use and, except in the smallest of libraries, it is difficult to see how the collection could be handled otherwise. Nevertheless, this enforced disregard of individual users yields an intractably monolithic arrangement of materials that is depersonalized.

Fortunately for users, the electronic digital computer has immense potential for individual treatment of people and events. One major ultimate goal of computerization of college libraries must be the recapturing of humanization lost when libraries grew beyond the stage

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of having a staff of a single librarian familiar with all materials in the collection and able to interpret those materials personally for each user. To be sure, this goal may not be achieved until the end of the century, but it may not be achieved even then if it is not defined and established now.

The long history of machines reveals that one of their principal functions has been to enable man to enjoy increasingly his uniquely human attributes. Before the advent of machines, man was entirely occupied in the task of maintaining a biological existence and his cultural activities in art, faith, justice, and knowledge were so excessively primitive as to be almost nonexistent. Technological developments, in which machines have played a major role, have relieved man of the full-time occupation of staying alive, and have made it possible for him increasingly to enjoy his human qualities. It is the human qualities of library users and librarians which must be enhanced if library computerization is to be a success.

Although there can be no doubt of the enormous contribution which technology has made to human culture, there have been inhuman machine applications due to inadequate design by engineers and inadequate specification by managers. These inhuman applications are typified by designs that convert a human being into a segment of the machine to be driven by the machine. An example of such a misuse of machines is a pressman manually feeding sheets of paper into a power-driven printing press operating at a speed which is not under the pressman’s control. Similarly, library computerization can unfortunately place requirements on librarians to perform machine-like tasks which machines, not human beings, should be performing. The computer’s huge potential for personalizing the college library must not be marred by applications that dehumanize the staff.

The history of college libraries does not disclose them as humanized institutions. A century ago, American college libraries had but one function, namely, the conservation of books. College libraries were not growing rapidly and they certainly were not heavily used. In Ohio, the Library of Buchtel College, a precursor of the University of Akron, was open “at least one day of every week at such hours as may from time to time be appointed”; Marietta College had 12,300 volumes which were available “every Saturday”; Oberlin was open “on Wednesday, between the hours of one and two p.m., and Saturday, half an hour before Prayers, and at no other time”; and Wittenberg
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with about 2,000 volumes was “opened once a week for the accommodation of students.”

During the two decades that followed the 1860’s, American collegiate education began to evolve from the essentially medieval teaching practices followed a hundred years ago, and the American university began to come into being as a trainer of young men and women who could design and carry out independent research programs. At the same time, the library began to play a more active role in its institution and initiated service of information to students. As long as the library remained a one-librarian institution with relatively few users, it was possible for it to operate as a personalized collection. Dehumanization accompanied growth.

Four major developments in library organization and operation—all originating in academic libraries—facilitated use of growing collegiate libraries. In 1843, Charles Coffin Jewett, at Brown University, introduced subject indexing of books employing what is essentially the modern structured subject heading list. Five years later at Yale, William Frederick Poole introduced subject indexing of periodicals. A quarter of a century after Poole, Melvil Dewey devised the first effective narrow classification scheme. Originally intended for use in a classed catalog, Dewey’s Decimal Classification was soon widely employed to arrange books on library shelves. Finally, in 1884, Dewey introduced the full-time reference librarian—two, in fact—at the Columbia University Library. Dewey’s introduction of reference librarians came about because of his recognition of the monolithic character of book arrangement on shelves and entry arrangement in catalogs. He rightly felt that full-time librarians could greatly aid the user, and certainly it is the college library reference staff that contributes whatever humanization may exist in the modern college library.

Since Dewey’s establishment of reference services in 1884, the one principal innovation in academic library operation has been the user-operated photocopying machine. In a sense, self-service photocopying increases personalization of the library, for it enables an individual user to obtain copies of only that information in which he is interested. Four out of five college libraries appear to have photocopying services, and the monstrous number of photocopies produced testifies to the demand for personalized information service.

Forman has recently examined “Innovative Practices in College Libraries” and it is clear from his findings that radical extensive de-
partures from classical librarianship have not yet occurred. As for the use of machines to increase humanization of libraries, little has yet been accomplished. It would appear that the most personalized innovative practice is Selective Dissemination of Information (SDI), for which a computer is admirably suited. An important one-fifth of college libraries have SDI services.

The results of Forman's investigation also make it clear that as yet there is no application of mechanization which significantly increases productivity of library staff or of users. For decades, library administrators have striven to cut costs by increasing efficiency of unit procedures; it has not been possible to increase productivity of staff in any real sense of that term. Moreover, college libraries are still largely self-existent institutions despite emphasis on service. As a result, some of the "efficiencies" which have been invoked have succeeded in lowering costs to libraries, but have all too often increased costs to users.

Because it has not been possible to increase the productivity of library staff, college libraries have experienced an exponential rise in per-student costs. During the first half dozen years of the 1960's, per-student cost increase was at the 5 percent compound interest rate. In other words, per-student costs of college libraries appear to be doubling every fifteen years. These exponential increases in costs, which have the same character as the per-student cost increases for colleges as a whole, are rising more rapidly and are basically different in character from the linear cost increases in the general economy, where salaries rise as productivity rises. However, in the economy as a whole, productivity rises because an innovative and improving mechanization effects an increasing productivity of each individual. As has been shown, productivity of library staff does not increase with salaries which must remain relatively abreast of salary growth in the economy. Or to put it another way, productivity of individual library staff members has not doubled in the last decade and a half as have library costs per student.

Currently, college libraries and communities of college students are growing more rapidly than at any time in collegiate history. As Morse pointed out, this growth enforces an increasing depersonalization on the library. Such dehumanization has been developing at an unfortunate time in collegiate history, for goals of collegiate higher education are focusing increasingly on production of a college graduate who will be a perpetual student. Indeed, it is difficult to see how an indi-

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individual can make much way in the knowledge-based world of the immediate future unless he is a perpetual learner. Emphasis on teaching an individual how to learn, rather than on communication of knowledge, calls for educational experience to be an increasingly individual experience. If college libraries are to be successful participants in the educational programs of their institutions, some way must be found to return to the personal relationships which the one-librarian library enjoyed in the past. Here, it would seem that the computer offers the major hope.

Although fulfillment of that hope may not be obtained for another quarter century, it is important that the goal to be sought be defined now so that it can be reached along a direct avenue, avoiding distraction of wasteful excursions along detours and into cul-de-sacs. That goal for the college library should be a "library" which can organize the information it contains of interest to a particular user for use by that particular user. Of course, at the present time, no college library can afford to be organized for any one particular person.

Ideally, a college library should automatically reorganize itself for each individual user. Such a library is not outside the realm of possibility at the end of another quarter century, and the smaller the college library, the more possible the humanization. To achieve goals attainable by a computerized library, it will probably be necessary to convert to digital form information now in printed form. To effect personalized service, it will also be necessary to have efficient mechanized subject indexing and subject classification of information which the "library" holds. Major technical and intellectual problems require solutions before even the smallest college library could be automatically manipulated in a computer. First, it will be necessary to devise a mechanical technique for converting information in printed form to digital form. Mechanical conversion is absolutely necessary for several important reasons, not the least of which is that manual conversion of printed textual material in amounts equivalent to that in a college library would be a prime example of man's inhumanity to man.

At the present time, computerized subject indexing and subject classification of textual materials does not achieve the quality of human subject indexing and classification. Nevertheless, computerized processing is surprisingly good. There is no doubt that the not too distant future will see solutions to intellectual problems the lack of which currently prevents computerized subject indexing and classification from being equal to, or superior to, human processing. However,
to cope with textual materials in other than the English language, it will be necessary to have efficient and accurate machine translation. Here, the future is not bright, but it still seems likely that machine translation adequate for automatic subject heading and subject classification will be available before the end of the century.

The extraordinary college library of the future will not only be able to respond to each person as a person, but will also permit each user to remove copies of information with which he wishes to work while at the same time leaving on the "library shelves" the entire stock of information. In short, the college library at the end of the century will enjoy the attributes of centralization, and at the same time the qualities of the personal scholar's library of the nineteenth century. Of course, it is impossible to achieve this goal with traditional library techniques, but there is every reason to believe that computerization will enable achievement of such a goal in the next several decades.

The goal described above for the college library of a quarter century hence will not be reached suddenly at the end of twenty-five years. Rather, college libraries should evolve toward that goal, and an effort should be made in every library computer application to avoid a side excursion from the direct and broad path to the hope of the future. Initial steps toward that future goal are already behind us. Computerized SDI which some college libraries have activated is a major step toward the humanization of college libraries. Similarly, near-personalized computer-produced, selected bibliographies are a development in the direction of the future. Moreover, there will be segments of textual material in digital form in the relatively near future. At least two publishers are working on a computerized encyclopedia, and at least one has a pilot operation of such an encyclopedia. Initially, publishers expect to continue to print encyclopedias from computer stores which can be far more intelligently organized and updated than can the classical encyclopedia. Nevertheless, these publishers look forward to selling subscriptions to encyclopedias that will be in the form of remote access from some type of terminal.

So far this paper has emphasized future humanization of the college library for the user. What will be the effect on the college library staff? It has already been pointed out that computerization should not be designed in such a way as to increase mechanical behavior of library staff members but conversely, to relieve them of the many mechanical repetitive tasks now imposed on librarians. In short, human intervention in computer systems should be minimized, thereby free-
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ing staff to perform human intellectual tasks rather than machine-like operations.

After development of new huge file organizations in which to store machine readable catalog records, mechanized descriptive cataloging will come into being. It seems improbable that all tasks related to descriptive cataloging will be mechanized. Nevertheless, descriptive cataloging is largely a mechanical process in which a human being applies a complicated set of rules to data on a title page. When rules are precise, a machine can apply them, and with file organizations other than the linear arrangement of cards in a drawer, the rules can be simplified.

It will soon be entirely feasible for a cataloger to indicate by pencil marks on a title page, the main entry, title, and elements of the imprint; a typist, or keypunch operator, could copy the title page into machine-readable copy and include tags indicated by pencil marks. The computer could then format the title page information to appear like bibliographic information on a catalog card or in a citation, and place the entry in its file.

Here, the cataloger must place pencil marks on the title page and the keyboarder must copy the title page. Both tasks are mechanical although the former requires application of complex rules. Such a system could be criticized, particularly because of the inhuman use of a human being to copy the title page in order to convert it to machine-readable form. However, humans now do such copying so that the new system would not introduce, but rather would diminish, mechanical requirements placed on human beings. Of course, it is hoped that at some future date developments in optical character recognition would be sufficiently effective to relieve a human staff member from mechanically copying title pages. In general, staffs of college libraries can look forward to an increasing humanization of their tasks as computerization progresses.

The computer applications described above will require large sophisticated machines—larger and more sophisticated than colleges, much less college libraries, are likely to have, or be able to afford. Therefore, it appears most probable that a group of college libraries will share a regional computer, achieving access to the computer by remote terminals. Such sharing will make the computerization of college libraries economically feasible, and at the same time yield other benefits. For instance, duplicate descriptive cataloging would be eliminated since all catalogers would be using the same catalog file.

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Similarly, the in-process file would be shared, and would be part of the main catalog file. With holdings recorded on a single machine-readable cataloging record, union catalog information would be available to each participant.

The most restrictive aspect of the college library card catalog is that there is only one of it, and users are forced to make a trip to the library (the larger the institution, the longer the trip) to consult a listing of library contents. With terminals in classroom buildings, laboratories, and dormitories, it will not be necessary for a user to go to the library until after he has determined that the library possesses the book and that it is available for him.

A direct benefit to colleges will be reduction of per-student library costs from an exponential rise to a linear increase, thereby bringing library costs in line with those of the economy as a whole. Exponential rise in per-student costs for colleges is without a doubt the most serious problem which confronts higher education today. It is not obvious how colleges can mechanize the technology of education to achieve desirable results which it seems that their libraries can attain in the foreseeable future. Nevertheless, if the college library can decelerate the exponential rise of per-student costs in its college, it will be making a major contribution.

In summary, it can be said that with increasing growth of a college community and college library, the library becomes a monolithic arrangement of volumes and catalogs that attempts to be all things for all users, but which disregards each user as an individual having his own personal interests. Sophisticated computerization of college libraries holds out the hope of humanizing these libraries before the end of the century. At the same time, library tasks will be increasingly humanized for the staff by relieving staff of machine-like activities.

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Form vs. Function: Architecture and the College Library

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In a study of academic library architecture it is difficult to separate building trends as they apply either to colleges or universities because the general building trends that have developed over a long period of time are usually applicable to both types of institutions. The greatest differences will be found in the size of the physical facilities and the type and complexity of some of the automated and mechanical equipment. Since this issue of Library Trends is concerned only with college libraries, current trends will be presented as they relate to college library buildings, but it will not always be possible to separate them from university library buildings. Although some of the trends cover a longer period, this article will be concerned largely with a short history of college library architecture, an indication of some trends of the past two decades, and a look at what might be expected in the future. Detailed information on the trends to the mid-1950's can be found in the literature (see Additional References).

The evolution of academic library architecture over several centuries shows significant changes. The earliest universities in Europe were essentially colleges in which library collections were housed either in the professors' homes or in a room at the university if it had any buildings. When the first colleges were established in America in the seventeenth century they were usually patterned after European universities in the matter of curriculum, style or method of teaching, and physical facilities. As a result, the American academic institution was essentially a college. Library collections and services were housed in one or more rooms in a building. As more space was needed it was not uncommon for the library to expand into adjacent rooms. This type of housing was the rule rather than the exception until the nineteenth century.

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In a study of the American college library to 1800, the following summary describes the typical library physical facilities of the seventeenth and eighteenth centuries:

From the preceding sample descriptions of the quarters provided for colonial college collections we see the characteristic library as a room in a wooden or brick structure, which room was most frequently located in relation to the chapel, that other department serving the whole student body at one time. Indeed, at Yale, when plans for the new chapel were drawn, provisions for the library were made. Equipment apparently was limited to non-adjustable wooden shelving and furniture if the reproductions of early libraries in the present Yale and Dartmouth buildings can be considered representative. Somewhat more elaborate provisions were made at Harvard where leather chairs and a rug were provided. Judged by our modern architectural efforts the colonial college library was probably far from inviting for reading and study, but it was certainly not less provided for than other college departments of that day.

In the nineteenth century many American colleges began to develop into universities. This was due to increased enrollements, the expansion of undergraduate curriculums, and the development of graduate and professional schools. Because of these changes and the greatly increased production of printed materials, universities were forced to enlarge the library's physical facilities. As a result, it became necessary to think in terms of separate library buildings. But many academic institutions remained colleges and the physical facilities were rooms in buildings for some time after universities erected separate library buildings.

Starting in the late nineteenth century, some colleges constructed separate library buildings and this trend continued to the time of World War I. College library physical facilities during this period were essentially no different from those of other types of libraries. The size of rooms and general arrangement were limited by interior bearing walls. This made it difficult to expand internally when a function or service became too large for its quarters. The interior was generally gloomy because walls were quite often painted in dark colors and because of the dependence on natural light and poor artificial lighting. Books were stored on sections of shelving that were permanently located, either in separate bookstacks or wall alcoves. Ceilings were high to allow a better flow of air. Furniture was sturdy but usually
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unattractive and uncomfortable. Non-assignable library space sometimes amounted to as much as thirty or more percent of the total space in the form of large halls and foyers, high ceilings, thick floors and walls, and imposing stairways. The exterior was usually Georgian, Gothic, Greek, or Romanesque, quite often with many steps to the front entrance. In general, the entire building was poorly arranged and the interior space was not flexible. The monumental tradition of this period is attributed to following the European pattern of library construction.

During the latter part of the nineteenth century many librarians attempted to point out these inadequacies but their complaints were like cries in the wilderness. Architects continued to design library buildings that might be monuments of beauty but were functionally limited. One librarian in 1888 became eloquent in his denouncements and wrote a poem about the difficulties of making architects listen to the needs of librarians. He discussed the things that had been done to make the library non-functional and concluded with these lines to the architect:

You have raised a costly structure fit to stand for many a year,  
But you quite forgot the scholar who seeks for wisdom here;  
Will he find it sooner, think you, without help of air or light?  
Does it add much to his comfort that the books are out of sight?  
When librarians are angels, which they are not all (as yet),  
They may be shut off in corners without getting in a jet;  
When mechanical assistants are electrically wise,  
They may work in “stained-glass attitudes” without much use for eyes.

You have made it fair and lovely any one may see who looks,  
But, the object of a library being principally books,  
Unless you can make up your mind to take that for your goal,  
’Twill be like a lovely body without one spark of soul.²

The trends of the nineteenth century continued into the twentieth century but between the two World Wars some changes were evident in the planning of college library buildings. Shelving practices evolved from wall shelves and alcoves to multi-tiered stacks and, in a few cases, free-standing stacks. The interiors were still not functional but some effort was being made to relate library materials, readers, and services. Walls were load-bearing which limited the flexibility of the interior. Many of the ideas now thought to be necessary in a library building were being developed. Some of these ideas were included in the written building program of the library building being planned.
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at Iowa State College in 1922: 1) seating for 15 percent of the future student enrollment with a higher percentage for liberal arts colleges; 2) special facilities such as carrels, research study rooms, and seminar rooms; 3) facilities for special groups of students; 4) adequate book storage for the present and future; 5) location of the circulation desk near the card catalog, main reading room, staff workrooms, and bookstacks; 6) sufficient corridor space for peak traffic loads; 7) large elevators; and 8) comfortable and well-arranged staff working quarters.\textsuperscript{3}

In 1933 Angus Snead McDonald wrote an article in which he urged a new look at the whole concept of library planning.\textsuperscript{4} Many of the ideas he discussed had been considered by librarians and some were being used in varying degrees, but not to any great extent. The proposals he presented were to have a marked effect on the construction of all types of library physical facilities. He advocated the change from fixed-function to modular buildings. He also suggested many of the things which today make libraries inviting and convenient—such as adequate air treatment, comfortable furniture, better and more efficient lighting, functional and flexible interiors, subject arrangements of books, better relationship between books and readers, elimination of most interior bearing walls, open-shelf arrangement, and an attractive exterior with grade-level entrance. He indicated that library buildings must be planned not only for the scholar and student but also for the general public. In the late 1930's modifications and variations of his modular planning idea were used in several new library buildings.

Immediately after World War II there was a marked change in the architecture of college library buildings. The idea of modular planning was becoming recognized as an excellent way to provide both flexibility and beauty. There was a gradual shift away from fixed-function buildings with large amounts of space used for non-assignable features to buildings with flexibility for functions and more space assigned to library operations.

One of the most significant changes has been the closer working relationship between the architect and the owner. Librarians had tried in earlier times to make themselves heard but it was either a weak effort or the architect or others concerned did not listen. In any event, after World War II the use of the planning team and a coordinated planning process began to develop. The planning team had a larger voice in the whole planning process and spent more time learning
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and observing new developments and ideas. The written building program became a standard document. All of the component parts and needs of the library building were put on paper before construction began. The architect was then able to translate library functions and services into a workable interior while still having considerable freedom in the matter of design. Non-assignable space was reduced and functions and services were more closely coordinated. The whole planning process was further helped by the use of consultants who had become experts in library construction and were able to assist the planning team in producing a more functional building.

During the last few decades there have been some marked differences in exterior building design. Exteriors such as colonial, Georgian, and Gothic have been common but there have been many other types. There is general agreement that a rectangular building is less expensive to construct than a building with the same amount of interior space but which has irregular exterior walls. However, there has been an increasing tendency to discount cost to some extent in favor of unusual designs that are more appealing than the rectangular type of construction. The new designs have taken forms too numerous to describe but the aesthetic effects have tended to make the library building more attractive and inviting.

Up until about twenty years ago, fenestration on college library buildings consisted of regular windows quite often set high on the walls to permit the use of wall shelving below them and to allow a better circulation of air. During the 1950’s and early 1960’s many libraries were built which had glass walls on one or more sides. A number of problems soon developed. The direct rays of the sun caused glare and heating and cooling problems. It was necessary to control this with the use of draperies, special types of glass, and overhangs or similar structural details. It was often not possible to place seating near glass walls because of temperature and glare. Custodial costs were increased due to the expense of cleaning the glass. Glass walls are still used to some extent but the trend has been reversed in recent years. The solution has been to seek new ways to overcome some of the problems or to revert back to standard windows or variations, such as the long slit window or smaller versions of the glass wall. In some cases, entire walls are windowless.

Modular planning has made it possible to make interior structural changes. Room heights of eight to ten feet are now common because of better artificial lighting and the use of forced air. The thickness of
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Floors have been reduced and most interior bearing walls have been eliminated because of support by columns. Ducts have been enclosed in walls, ceilings, and columns, and light fixtures are flush with the ceiling or protrude only a few inches below the ceiling. Noise is controlled better with acoustical treatment and the strategic location of library functions and services.

Interiors have been changed further by flexibility and informality. It is now possible to move areas and functions with a minimum of effort. This makes it possible to group functions in such a way that better service can be offered and, at the same time, staff working conditions can be improved. Reading rooms with rows of study tables and chairs have been largely replaced by reading areas scattered throughout the library with individual carrels, study tables and casual lounge furniture.

Several changes can be seen in the use and need for special rooms. An auditorium was once thought to be necessary but more and more libraries are finding it to be a burden, particularly when it is included to serve other functions on the campus. Because of the increasing demand for longer library hours, some libraries have found it beneficial to have an after-hours study room that can be kept open on an almost continual basis. Seminar rooms have been thought necessary for several decades but their use has been declining in recent years. To some extent they have been replaced by small rooms in which students can hold informal meetings. It is only in the past twenty or thirty years that staff rooms have been included in most new buildings. There are variations in typing facilities from the typing carrel to the single and multiple-seat typing room.

Until the second or third decade of the present century books were shelved in many ways. Shelving was largely along walls or in alcoves. Variations of the multi-tiered bookstack were started in the nineteenth century with the standards being used as supports for the floor as well as for shelves. Some shelves were stationary on the standards while others were adjustable by notches or set screws. Some bookstack floors were made of translucent glass tile for better light transmission. Over a period of years the evolution was made to freestanding bookstacks that can be moved to any part of the building and permit aisle widths of any size. The storage idea which was implied in the multi-tiered bookstack is now found in many types of compact stacks, some of which are mechanized.

The changing concept of the college library as it relates to the
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educational program of the college has caused some rethinking with regard to the seating of patrons. As long as forty or fifty years ago it was not thought necessary to seat a large percentage of the patrons. Since that time there has been a gradual increase until it is now important to seat 40 or 50 percent of the student body. Some colleges with special educational programs use a higher percentage. The types of student seating have changed from predominantly tables for six or eight people to as much as 75 percent of the seating at individual study desks. Formal seating has given way to the inclusion of informal seating with lounge chairs and sofas. There has been an increase in the facilities provided for faculty research, such as private studies, carrels, and special reading areas or rooms.

Since World War II the use of audio-visual materials in college libraries has increased rapidly. This service started with collections of phonorecords which were used largely for leisure. The use was later extended to phonorecords for instructional purposes. Films, filmstrips, slides, tapes, and other non-book materials were gradually acquired. Libraries first began to use microfilm in the 1930's. In the 1940's microcards were proposed and developed. Further refinements have led to other types of microforms. Equipment such as projectors, tape recorders, record players, projection screens, and new types of furniture are needed to handle and service these materials. This has not drastically altered the physical requirements of college library buildings but some accommodation has been necessary.

Further changing concepts of education are forcing college librarians to take a serious look at the services they should offer. There is some indication that teaching machines may be used in the library of the future. Experiments are now in process, or are being considered, with electronic carrels which can be equipped with tape recorders, television screens, dial-access information facilities, loudspeakers, and similar items. The trend is toward programming for self-learning. Since these programs and the use of the equipment are still in the experimental stage it is difficult to know what their impact will be on library architecture. What is known is that adequate conduits and outlets must be provided and that the building must be flexible enough to accommodate the machines of the future. Provision must also be made to extend the services beyond the library to the classroom, dormitory, and other places on the campus.

The computer will undoubtedly be used increasingly by libraries in the future, particularly for processing the data needed for control
over, access to, and storage of information. This is more likely to affect large libraries than small libraries. However, many college libraries have, or are planning, connections with computer centers in their own institutions so that they will be ready for possible new developments. Those college libraries which do not have institutional computers will probably have to depend on cooperative arrangements, such as time-sharing with computer centers or the co-ownership of a computer with other libraries. The computer and other types of automation and mechanization are now being used for circulation control, acquisitions, serials work, book catalogs, and many other procedures and functions. These uses will not necessarily reduce the storage problems but they will require changes in interior physical arrangements for the housing and use of machinery and equipment, the installation of special air treatment equipment, and an increased number of conduits and electrical outlets.

There have been many changes in college library architecture in the past century or two. From the changes that have already occurred, those that are now in the process of being developed, and the predictions that are being made for the future, it seems probable that the innovations in the next few decades may be even greater because of automation, mechanization, and the information explosion. Some of these possibilities should be examined to indicate the impact they might have for college library buildings.

John Kemeny predicts that the university library will be obsolete by 2000 A.D. because of the tremendous cost of purchasing, storing, cataloging, and servicing the ever-increasing amount of printed materials. He suggests that a national research library be established to preserve a majority or all of the printed materials available and that university libraries house only much-used materials. The national research library would be fully automated to store and service printed materials which would be reduced to tapes. University libraries would be connected to the national research library by multichannel cables. The patron would sit at a console in the library or in some other place on the campus and, by the use of a code book of subject classification schemes, dial the national research library for the information needed. The patron's console would be equipped with a screen for projecting facsimiles of printed pages, subject headings, or bibliographic references from the collection of microimages stored in the national research library. The patron would be able to obtain complete or partial coverage of the literature on a subject or the exact pages needed.
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There is evidence that Kemeny's predictions may have some validity. It is possible, in the future, that copies of printed pages may be transferred between libraries by telefacsimile or transmission on a screen. Several experiments have been tried or are now in progress. The results leave something to be desired due to the high cost and quality of the copies, particularly in telefacsimile transmission. But if either or both of these methods are perfected, or if some other method of transmission is found, and if their use should greatly increase, the effect may be to alter the pattern and size of college library buildings. This would be especially true if it became possible for college libraries to restrict their purchase of printed materials to those items that are needed for current use and depend on larger libraries for research and little-used materials.

During the past few years have been many experiments with further microreduction. It is now possible to achieve a reduction ratio of several hundred to one. Experiments have achieved reduction ratios of one million to one. If this can be done with printed materials, it would be possible to place the information from one million volumes into the average-size book. There has even been speculation about recording information at the molecular level and achieving greater reduction ratios. If this can be carried over to printed materials, hundreds of books could be placed on the head of a pin or all of the recorded knowledge of the world could be placed on a few sheets of paper.

There is evidence that real progress is being made in microreproduction of printed materials. More than 3,200 pages have been placed on a 4" x 6" microfiche and the whole Bible has been reduced to a 2" x 2" microfiche. A proposal has recently been made to produce a million-volume library on ultramicroform. This collection would be divided into various broad subjects each of which might be about 20,000 volumes on approximately 2,000 ultramicrofiches. With the rapid increase in the publication of printed materials during the past few years and the probable further increase in the future, it would seem that the use of ultramicroform might grow. The ultimate handicaps will undoubtedly be the development of reading machines capable of handling the great reduction ratios, the cost of producing large quantities of ultramicroforms, and the human element which might rebel at the necessity of reading an increasing amount of printed materials in forms other than books.

If the use of microreproductions and computer-stored knowledge
should increase as rapidly as seems likely, it would theoretically be possible for most libraries to own much or all of the printed information in the world. In practice, this would not be feasible because of the cost. It could also mean that the major portion of a library building would be used for seating, reading machines, and transmission and other equipment, and that books, periodicals, newspapers, and other library materials in the form of microfiche, tapes, records, etc. would be stored on sections of shelves or in filing cabinets. This does not seem likely in the immediate future but it could happen within the next fifty or one hundred years. The probable answer is that, for some time to come, books will continue to be used for a large percentage of needs and microreproductions will be increasingly used for little-used sets of publications.

In 1967, under the sponsorship of the Educational Facilities Laboratories, a group of communications and information technologists, librarians, and architects met in New York City to discuss the changing forms of communication, automation, and mechanization and their possible impact on the future of library architecture. The consensus of the participants was that “for at least the next 20 years the book will remain an irreplaceable medium of information. The bulk of library negotiations will continue to be with books—although the science and technology sections will gradually shrink. Remote retrieval of full texts in large amounts over long distances will not be generally feasible, and continued use of a central library building will still be necessary.” 6 It is suggested that library buildings of the next two decades will not vary greatly from those being planned today. The differences will be exchanges of space and additional space with planning for expansion. The group warns, however, that changing technologies may bring changes in the physical facilities of libraries. The library patron is the one who will be affected by new innovations and changes in physical facilities and this must be kept in mind. “Now, more than ever, it is important to design library buildings so they will be inviting and comfortable for people to use. The library building itself will gradually change, but people, who use libraries, are a constant factor.” 7

College library architecture in the 1970's and 1980's will continue somewhat along the same lines that it does today with some variations. It is entirely possible, however, that as the turn of the century approaches, there may be gradual changes in college library buildings because of the tremendous increase in the production of printed
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materials, the growing space needed to store such materials, and the effects of automation and mechanization. The results of these changes may mean less dependence upon, and use of, books and an increase in the use of printed materials reduced to some other form. It is possible that the present era is the beginning of what will eventually result in fully automatic information retrieval. For the most part, this may lead to push-button libraries in the twenty-first century. If this should happen, it is even more necessary than ever that library buildings be planned with as much flexibility as possible to accommodate the future.

References

7. Ibid., p. 20.

ADDITIONAL REFERENCES


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Expanding Resources: The Explosion of the Sixties

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As early as 1932, after having surveyed some 205 liberal arts college libraries on behalf of the Carnegie Corporation of New York, William M. Randall came to the conclusion that “what the average college library appears to need more than any other one thing is a directing head capable of unifying its aims and translating them into books.” If the term “books” is changed to “resources,” this may still be the one thing the average college library needs more than anything else. With the passing of the years, however, the task of filling this need has become much more complex.

Today, as the National Advisory Commission on Libraries has pointed out, “a library—great or small, privately or publicly supported—has two major and unique functions. First, it makes possible meetings of mind and idea which are not limited by our normal boundaries of time, space, and social or economic level.” Secondly, “it is the institution in our society which allows and encourages the development, the extension of ideas—not their passive absorption, but their active generation.”

At a time, however, when the complexity of modern life calls for an even greater integration of all knowledge, college librarians find themselves forced to perform new functions under conditions that threaten to jeopardize this unification of aims and the translation of them into useful resources.

The 1968 statistical summary of the American book publishing output lists a total of 30,387 titles, of which only a small proportion are new editions or reprints. If one adds to this figure 4,306 new U.S. Government publications and 20,166 theses from University Microfilms, the number reaches the overwhelming total of 54,849 new titles for this country alone. There are also currently being published in the

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United States some 20,000 periodicals with an aggregate circulation of approximately half a billion copies per issue. These figures contrasted with those of earlier summaries make it obvious that the proportion of printed material which any one person can read or even scan grows less every year.

Lawrence Sandek estimates that in the scientific and technological field alone, approximately 3,000,000 articles "are published in some 35,000 journals in more than 60 languages each year, and the rate of discovery and of publication is increasing—doubling, according to one estimate, every 15 years . . . . So prolific is the published output," he adds, "that no worker in any field can hope to keep abreast of it and still have time for sleep, much less for useful work."4 As is evident, this publication explosion has in turn affected every phase of librarianship from book selection and acquisition to processing and circulation.

In addition to the books and journals being produced in such numbers, the librarian of the sixties must also cope with a variety of new media and new forms of publication. Libraries can no longer make a distinction in the kind of materials they will collect and service. Recordings, tapes, transparencies, films, filmstrips, slides, and microforms are among the many newer media that complement books. Each brings with it its own special problems for selection, processing, and servicing. The wide variety of purposes and needs in an era of electronic teaching methods will require continuing study and a familiarity with criteria for selecting many different kinds of materials on the part of the library staff.

Microforms, while they will not replace the conventional book, are becoming increasingly important for college library collections, particularly for back files of periodicals and gaps in serial holdings. Microform (roll and fiche), micro opaques, and miniprint are among the many forms available today for image storage and retrieval. Unfortunately, the smaller libraries seem to have emphasized the storage aspect of microform collections and have neglected the retrieval. Obsolete and indifferent practice in servicing, and lack of competence in handling the equipment, including reader-printers, have discouraged more than encouraged the development and use of these forms.

New conditions have arisen, too, not only from the expansion of numbers and kinds of library materials but also from the changing pattern of education: an increase in the number of students in graduate and undergraduate programs, an intensification of education on all
levels, the broadening of curricula, a greater emphasis on science and non-Western culture, the introduction of interdisciplinary studies, the wider acceptance of the concept of universal education, and the introduction of disadvantaged students to the college campus. All these have made unprecedented demands upon college libraries.

In 1965 there were approximately 41,000,000 students enrolled in schools from kindergarten through grade twelve as compared with 28,000,000 in 1950. Many of these students are now entering college and they will continue to come in large numbers until the declining birth rate is felt on the college level. In the seven-year period from 1959-60 to 1965-66 the number of students served by academic libraries increased 73 percent whereas the professional library staff increased only 44 percent, representing an increase from 378 to 454 students served by one professional staff member. As materials increase in number and complexity students are obviously getting less help from professional librarians.

The G.I. Bill of Rights, as Dan Lacy so aptly points out, “altered social patterns by making a college education available” to many “who otherwise could not have afforded it and might not even have thought of it.” The library-related legislative acts subsequently passed by Congress have considerably changed the course of education and the flow of publications created by them. With the explosively growing college market university presses have greatly extended the range of their publications; commercial publishers are more and more assuming an interest in scholarly works; and the rising level of technology and the expanding research programs of government and business have created an ever-increasing demand for many kinds of books.

Librarians have not yet become fully aware of the change in climate that has accompanied this stepped-up program of education. With emphasis on independent study, flexible scheduling, and other rapid and unpredictable changes, the necessary skills and attitudes are quite different from those needed in the past. Advanced placement and the revolutionary changes predicted for the future high school may even send students into college with preparation that now seems exceptional. Genuine literacy, the power of independent study, and well-developed intellectual interests would make certain courses on the college level superfluous.

With such an array of expanding resources, new media, and new teaching methods, how is the librarian in the average college library to direct the selection and acquisition of materials? The larger aca-
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demic libraries are efficiently solving the problem by adding bibliographic specialists to their staffs. In the smaller institutions, however, this is not possible. Unless a systematic, resourceful, and imaginative program for selecting and acquiring new materials is drawn up, even federal funds, institutional grants, and increased allocations will not result in first-rate collections for today's libraries.

In too many instances administrators have failed to realize that an increase in funds for library materials also requires an increase in staff to select, acquire, and process the accessions. In 1965, many college librarians found themselves in the awkward position of having to spend federal funds almost overnight in order to meet grant deadlines. This meant, in some cases, haphazard and superficial purchasing with little or no attention to actual weaknesses in the collections or to the economies that should be exercised by technical services departments.

A good college library cannot be built in a day or a month or a year but must be the result of careful planning by a working combination of administrators, faculty, and library staff. The careful consideration which in a more leisurely day characterized curriculum planning is likely to give way today to a frequent change of goals and a multiplication of courses with little or no regard for the adequacy of the support of the library. An effective selection program should be based on a clear understanding of the future plans of the college: whether maximum enrollment is to be 1,500 or 15,000; if the program will be limited to a four-year liberal arts course or will include a graduate program; if the emphasis will be on independent study and honors work or on the more traditional lecture system. Only when these and similar policies are clear and firm can a sense of direction be given to the selection process.

Although recommended book lists will never take the place of a first-hand acquaintance with books or the reading of critical reviews, there are many good ones compiled under the auspices of institutions or professional organizations that can be useful and stimulating if they are judiciously used. The college librarian in the sixties is fortunate in having a series of recent or recently revised standard book selection aids to guide him through the thousands of titles from which he must choose. While this article cannot consider these individually, a few should be mentioned and are described below since they set a new pattern for recommended book lists.

Choice, a book reviewing service for college libraries, evaluates
current publications of a scholarly or academic nature. Begun in 1964 under the sponsorship and funding of the Council on Library Resources, this monthly publication covers close to 5,500 titles a year with brief reviews by more than 2,000 subject specialists. Its “Opening Day Collection,” has been well used by new college libraries as well as old ones, and its “In the Balance” column features valuable subject-centered bibliographic articles. The current series of articles on “The Crisis in Micropublication” provides criteria and reviews of microforms not available elsewhere. The Choice reviews are also available on cards, a feature that began in March 1968.

Books for College Libraries, prepared under the direction of Melvin J. Voigt and Joseph H. Treyz, is a selection list of approximately 53,400 titles based on the initial selection made for the University of California's New Campuses Program. Designed to update Charles B. Shaw's List of Books for College Libraries, published in 1931, the Voigt-Treyz list is retrospective and has been “deliberately and directly related to the reviewing journal Choice, in that it includes only titles published prior to 1964.”

The eighth edition of Winchell's Guide to Reference Books, published in 1967, includes 7,500 titles, an increase of 1,500 over the earlier edition because of the large number of reference books now being published. The Guide covers titles only through 1964 but a First Supplement for 1965 and 1966, edited by Eugene P. Sheehy, followed almost immediately. The Supplement, which includes slightly more than 1,000 items, initiates a change in the pattern of publication in order to provide a more up-to-date list. It also includes Library of Congress card numbers as well as prices when known.

The library staff will obviously need to devote longer hours to materials selection than they have in the past: balancing completeness against coverage for need; selecting books for active as well as infrequent use; resisting the “persuasive authority” of book lists; risking investment in expensive but important purchases; overcoming a distaste for duplication where needed; searching secondhand catalogs and preparing desiderata lists covering retrospective as well as current needs; discovering the better books that have displaced the good; and avoiding waste and extravagance in the midst of spiraling library costs.

The changes that librarians have seen to date are as nothing compared with what is yet to come. Macrocopying, available commercially since 1950, is now a routine service in most institutions, but the de-
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Developments in microphotography and electronics are also beyond the theoretical stage and moving rapidly towards revolutionizing access to information. Facsimile transmission has been used primarily on an experimental basis but the technique has now reached the point where technical competence and lower costs give promise of making it possible to transmit to great distances the ever-increasing store of published material. High-ratio reduction microphotography, telefacsimile, and computers are no longer the concern of research libraries alone. These newer techniques will eventually make available to college libraries resources otherwise completely beyond their reach.

The U.S. Office of Education is presently giving financial support for the study of an advanced type of microfilming. The director of the study, James P. Kottenstette of the University of Denver Research Institute, has called this high-ratio-reduction "a major breakthrough in the storage, dissemination and use of printed materials," which should reduce library size and costs, bring massive amounts of information to smaller institutions, and increase the availability of documents throughout the country.15

In December, 1968 Encyclopaedia Britannica, Inc. announced a new program designed to bring within the reach of every college and university library a series of research collections in a similar ultramicrofiche. This reduction (UMF) is a photographic reproduction of materials similar to a microfiche but with the capability of containing up to 3,000 page images at reductions up to 150X. The first "package" in the series will be the Library of American Civilization, a collection of approximately 20,000 volumes covering every aspect of American culture and which will be cataloged, indexed, and arranged for study and reading. Subsequent series will cover other areas in the same way. This technology will permit extensive library collections to be photographically reproduced in miniature form with great precision and at low cost. The plan insures that through careful selection, cataloging, and indexing each series will be a definitive and highly useful collection.

Only through information networks will libraries be able to overcome the problem of expanding resources, increased production costs, and the administrative burden of handling the world's information. The record of knowledge is now too extensive to be accommodated in a single library in a single form. Instead the various disciplines are supporting their own systems by making use of the new technology: they are reducing the volume of library holdings by means of micro-
filming devices; they are compiling indexes and scanning them with data processing equipment; and they are servicing readers at a distance by means of transmission equipment. MEDLARS is an application of the computer to the production of a major current bibliography; B.A.S.I.C. (Biological Abstracts Subjects in Context) provides a KWIK index for the biological sciences; WRAIR (Walter Reed Army Institute of Research) places a telecommunication system at the service of scholars; and LITE (Legal Information Through Electronics), a computerized version of the full texts, with indexes, of certain federal and state statutes, promises to revolutionize research on legal documents.

In the library field ERIC/CLIS, the Clearinghouse for Library and Information Sciences of the U.S. Office of Education's Educational Resources Information Center, is one of nineteen specialized clearinghouses that make up a nationwide network in the field of education. The clearinghouses are located at institutions of higher education and professional associations throughout the country. This decentralization is a special feature of the system.

The Conference on Bibliographic Control of Library Science Literature held at the State University of New York in Albany in April 1968 recommended that action be taken to improve existing indexing and library services, to establish urgently needed new ventures, and to support a long-range study of the problem of bibliographic control in the library field.16

In June 1967, the Library of Congress, the National Library of Medicine, and the National Agricultural Library announced plans for a coordinated library automation effort to make their research materials available to scholars. This will eventually involve regional centers for referral. Libraries in New York have already set up METRO (New York Metropolitan Reference and Research Library Agency, Inc.) to facilitate more effective utilization of the vast resources of the state. The agency includes academic as well as public and special libraries, and is typical of many projects that are underway throughout the country.

William Warner Bishop did not know how prophetic he was when he observed, more than half a century ago, that "we have just begun, in America, an era of huge libraries. The average size is increasing very fast. Our large libraries are getting very large. They are being run for wide constituencies on broad lines. More and more the practical American spirit is seeking for coordination and cooperation. . . .
Expanding Resources

Dimly one can see possibilities of mechanical changes and alterations, of the use of photography, instead of printer’s ink, possibilities of compression or even total change of form.” He went on to add, however, that “changes such as these will require an intelligent and sympathetic oversight to insure their success.” The vision has become a reality but unless college librarians become better informed and show greater sympathy for the newer technology as it affects library materials they are likely to lose their leadership in this area.

As comprehensive information systems develop it becomes urgent for college librarians to study more carefully the actual requirements of the college community. Need and use should determine the direction in which they move. Only when these are precisely defined can libraries offer adequate service. As more material becomes available through information centers it also becomes imperative for librarians to build up their bibliographic collections. Today a college library that does not make it possible for a faculty member to identify bibliographically most any published title is failing in service that should be rendered. The academic library of the future will have to depend heavily on catalogs, indexes, classification systems, and abstracting services to provide bibliographic access to the stores of materials that will be available to them.

The National Advisory Commission on Libraries has expressed itself as believing that the application of technology can play an extremely important role in improving library and informational operations but it “does not presently see a technological solution that will make either the printed book or the library itself quickly obsolete—nor does it see any near-term system that will inexpensively provide instant access to all knowledge at any location.” However, if librarians do not emphasize the tasks that are particularly appropriate to them, relinquish the inflexibility that clings to the physical library as we know it today, and move forward with the changes that are taking place they will not be ready to meet the modifications that seem to be inevitable.

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July, 1969


Implications of Federal Programs for College Libraries

EDMON LOW

To consider the implications of any legislation is essentially to attempt to assess the probable future impact of such on a given subject or activity—in this case, on college libraries. To do this well, in view of all the ramifications and complexities usually inherent in even the simplest of acts, an exceedingly clear crystal ball is needed—an article in very great demand and one in particularly short supply. Consequently, in hindsight our best efforts often can be seen to have produced mediocre results, frequently to our later embarrassment or regret.

Several elements enter into the effect of an act, each of which is difficult to assess during time of enactment. To begin with, legislation, like war, always begins in the minds of men—it does not just happen. The individual who conceives an act always has what is to him a fairly clear idea of its implications, although even his own view of these may well be limited or even mistaken due to his background, experience, and knowledge (or lack of same) of the subject under consideration.¹

Again, language is an imperfect vehicle of communication since words or phrases which a writer uses and which may seem perfectly clear to him often prove to be quite unclear to others. The different possible meanings of terms, particularly in their application to certain situations, are seemingly endless. This may be illustrated by reference to certain provisions of the Higher Education Act of 1965, the implications of which were apparently not foreseen during passage of the Act. For instance, Section IIA provides that in distributing of money to libraries for acquisition of library materials, emphasis shall be given to those libraries participating in cooperative programs. But what constitutes a cooperative program? Interlibrary loan arrange-

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ments, in which most college libraries already participate, are certainly examples of cooperative effort and, if this is accepted as a valid definition of a cooperative program, then practically all college libraries could qualify for consideration. Again, how much attention and effort constitute emphasis? These were questions which had to be answered in some way before allotments of money could be made. *How* they were answered determined finally the implication of the words for this particular time and situation. Obviously, these decisions, and the consequent implications, can be changed at any time by the administering agency unless further clarifying legislation is enacted.

It is primarily for the determination of implications of a bill as noted above that hearings are held. It is here that not only the fairness of the various provisions is considered in relation to individuals or activities affected, but also the implications contained that do not readily meet the eye or have not even been thought of by the sponsors up to this time are examined. Thus in the Postal Rate Bill considered in the fall of 1967, there was a proposed revision for fourth class mail which changed the rate from 8 cents per pound to 16 cents for any package up to two pounds. This is obviously no increase if the package weighs just two pounds. But a producer of and dealer in records by mail of religious tracts and songs in Texas pointed out that practically all his mailings were of single records—each of which were less than one pound—and consequently the proposed figure represented a 100 percent rate increase for him; an increase neither anticipated nor intended by the framers of the legislation. Public hearings held regularly by all standing committees of both the House and Senate, by examining and permitting others interested to examine and point out implications in proposed legislation, are therefore some of the most important safeguards against imprudent legislation. The immense value of the hearings is often recognized only by those who work regularly with the Congress.

When a committee has held hearings and recommends passage of a bill to its house, it prepares a report to accompany the bill in which it sets forth the purpose (i.e., the implication) of the bill as the committee sees it. This, known as the legislative history of a bill, is often consulted later by the administering agency or by the courts to determine what the intent of Congress was in creating this legislation. Thus, in the report accompanying the Copyright Revision Bill (H.R. 2512) in 1967, the Committee on the Judiciary in connection with the troublesome problem of stating clearly in law for the first time the
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judicial concept of fair use says "Section 107, as revised by the Committee, is intended to restate the present judicial doctrine of fair use, not to change, narrow, or enlarge it in any way." They were thus trying to explain as clearly as they could the intended implications of these provisions.

Until recently, passage of legislation authorizing expenditures or grants of money for various items such as acquisition of library materials, scholarships, institutes, or research was followed rather immediately by appropriation of actual money by the Congress in the authorized amounts; and therefore, the implication of the act, so far as amount of money determined same, could be estimated immediately. This is no longer true; for instance, the above items in the Higher Education Act were funded, i.e., money appropriated, for only about 50 percent of the authorized amounts for the fiscal year 1968-1969. Authorization, however, does presumably indicate the intent of Congress to provide these amounts in future years if necessary money is available, and are helpful in deducing the long range implications of the Act.

Certain provisions of bills are often couched in general terms and further refinement and details left to the administering agency. These are then spelled out in regulations and guidelines which may of course be changed from time to time as the judgment of the agency and its advisory committees dictate. Thus, the Higher Education Act of 1965 provided a basic grant of up to $5,000 to each library for acquisition of materials if certain minimal requirements were met, leaving the remainder to be distributed at the discretion of the Commissioner of Education. Therefore a significant part of the implication of this provision lies with the administering agency, and the implication changes as the regulations and guidelines are changed.

Finally, the implications of an act may not be fully realized until parts are interpreted by a court, perhaps many years after its passage. For instance, the Copyright Act of 1909 stated the rights of performance of a work in relation to copyright. In June 1968, the U.S. Supreme Court was asked to determine whether the picking up of broadcasts by antennae of CATV stations and distributing same by wire to individual homes constituted a "performance" under the 1909 Act as claimed by some broadcasting companies. Two lower courts had ruled it did, but the Supreme Court ruled it did not. The point here is that, almost sixty years after passage of the Act, courts were deciding on implications for certain situations which were almost certainly not
imagined by the framers of the Act, and thus the full implications of any Act may be years in being recognized.

The above discussion of the various elements which contribute to and finally determine the implications of legislation emphasizes the difficulty of assessment and the need of the crystal ball mentioned in the first paragraph. Since it seems desirable at times to do this, however imperfect this assessment may be, the following remarks are submitted.

The 90th Congress, Second Session in 1968 passed 389 public laws. Of these, perhaps forty, or around 10 percent, had some implications for libraries. These included action in such areas as copyright extension, foreign aid, vocational education, Arts and Humanities Foundation, Appalachian Regional Development, obscenity and censorship, and appropriations for library activities under various acts. As this is probably a typical year it is easy to see there are many existing laws with implications for libraries. In light of the space available in this article, only a few of these enacted in recent years which relate particularly to college libraries will be discussed but it is hoped even this brief treatment will be informative.

The Higher Education Facilities Act of 1963 was a significant milestone in college library history. Its significance was not only that it provided money on a matching basis for the construction of library buildings for the first time but probably more important, although the long range implications of this are not yet clear, it made grants available to both publicly and privately supported institutions of higher education. It thus successfully bridged, for the time being at least, the gap created by the church-state issue and paved the way for the passage in 1965 of the Higher Education Act and the Elementary and Secondary Education Act, both of which contained provisions for libraries in both types of schools. This is an area in which court challenges could come in the future which would determine more definitely the final implications of these Acts. This is a good example also of the fact that legislation may well have implications not only for areas for which it was written but also for other future, and past, legislation for related areas.

The possibilities of this Higher Education Facilities Act are great, and limited primarily by the amount of money authorized and appropriated for it. For 1968-69, Congress authorized $1,456,000,000 but only appropriated $475,000,000. Although this total includes funds for different kinds of college and university buildings, a goodly portion
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of such funds in the past have been devoted by the governing boards of higher educational institutions to libraries; the result being that in these four years of operation of the Act hundreds of library buildings have been or are being constructed throughout the country—a most convincing testimony to the belief of college and university administrations in the worth of libraries in comparison to other units in their institutions.

Another implication for the future of legislation such as this is its encouragement of increased local support through matching provisions. There seems to be no argument as effective with state legislatures for appropriations, with voters for bond issues, or with private donors as the prospect of receiving federal money to match that advanced by themselves. Thus this Act, and others which followed, have brought forth additional local support far beyond that which came from the federal government. During the first year of this Act, grants were limited to buildings for special purposes—libraries, natural sciences, mathematics, and foreign languages—which again emphasized the importance of libraries.

Shortly thereafter came the Higher Education Act of 1965 with great importance for college libraries, the total implications of which as yet are not completely clear. However, its provisions in Title II for aid in acquisition of materials, for fellowships and scholarships for the training of librarians, for library institutes, for research in the library field, and for the program of world wide acquisition and cataloging of books by the Library of Congress, plus some provision for acquisition of audio-visual materials in Title VI, probably will make it the most important of the legislation enacted to date for college libraries.

For the fiscal year 1968-69, $42,800,000 was authorized and $41,750,000 appropriated, with $25,000,000 of this going for acquisition of books and materials for college and university libraries. Some 2,000 libraries participated in this program in the year 1967-68 which indicates its widespread impact. The implications of this program for the future may well be more important than its impact to date if the Viet Nam War should end and more money would become available for domestic programs. Hopefully, also, Title IIIC which provides money for the national program for acquisition and cataloging of books by the Library of Congress, which has profound implications not only for research libraries but for smaller college libraries as well, will continue to be expanded each year to meet needs in this area.

The Library Services and Construction Act in 1966 included in Title
III the provision of funds for encouragement of inter-library cooperation, i.e., cooperation between all libraries in a state in the listing and sharing of resources, reference service, and general operating knowledge. Although little money has been made available for this as yet (for 1968-69, $10,000,000 was authorized but only $2,281,000 appropriated) it was the intent of Congress when passed, and apparently still is, to make this one of the very significant acts affecting libraries through strong financial support and through encouraging participation on the part of a wide spectrum of libraries of various types throughout the country.

The Depository Library Act of 1962 came into being a half dozen years ago, the first major revision of this legislation in forty years. It almost doubled the number of possible depositories, created regional depositories, and made provision for collection of documents printed outside the Government Printing Office by the Superintendent of Documents and distribution to depository libraries who requested the same. This non-GPO material, it may be noted, now numerically constitutes more than one-half of the total documents printed.

During the hearings on this, the value of the depository privilege was sharply attacked and some persons since have questioned the validity of this procedure and suggested other measures. Many librarians, however, including this writer, believe documents are a great treasure house of information and should be made freely available. This Act, if these assumptions are correct, has important implications for the future if satisfactory arrangements can be made for securing a larger percentage of this non-GPO material and distributing it in compliance with the law.

The Vocational Education Act passed five years ago and since amended several times, is particularly important to junior and community colleges which have a vocational education program, as most of them do. Under this Act funds are available for purchase and maintenance of library materials used in instruction in this field. The implications here are particularly important because there is much interest in the Congress and in state legislatures in vocational education and an even larger amount of money can be expected to flow into this area whenever primary attention can again be given to domestic programs.

The Networks for Knowledge represents a grand concept of a national linkage of resources throughout the country into which most sizable libraries would be integrated. Only a small appropriation was
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provided as planning money at this time and its implication would appear to be chiefly that of indicating the interest of Congress and its willingness to at least consider this very fundamental problem of documentation control.

The Acts cited above are probably those with the most significant implications for college libraries; however, others such as the National Foundation on the Arts and the Humanities Act, the Allied Health Professions Personnel Training Act of 1966, and the Intergovernmental Cooperation Act of 1968 are examples of the broad range of legislation of interest today to libraries in institutions of higher education.

A fact often overlooked by those not familiar with the legislative scene is the implications of legislation proposed but not yet passed, or of that only in the "talking" stage which has for the most part not jelled as yet into proposed bills. This proposed legislation not only has influence on acts already on the books—for example, on appropriations being made for them, on their administration, and on possible amendments to them—but particularly justifies attention because it is in this "talking" stage where recognition of implications can result in immediate changes if needed; a task much more difficult once it becomes enacted into law.

As this is being written, the first session of the 91st Congress is convening. As all pending legislation dies at the end of the second session of a Congress, legislation proposed in the last session must be reintroduced as new bills in this session. Among those to be reintroduced will likely be the Copyright Revision Bill which has particular implications for college and university libraries in reference to provisions for photocopying, display and transmission of materials. This is very important to those with interlibrary loan operations (almost all) and to various cooperative efforts among libraries. Because of the rapid advance of the so-called "newer technology," including the computer, it is probable that there will be frequent revisions of this law in the future, all of which will have implications for libraries.

In the "talking" stage and quite likely to come in the reasonably near future is a proposal for "block grants" of money to institutions of higher education; in fact, some bills were introduced in the past Congress for this purpose. The idea here is to grant a block of money to an institution for operating expenses with no strings attached, as opposed to "categorical" grants for such things as libraries, fellowships, buildings, or graduate education.

Many college presidents have felt, possibly with some justification,
that categorical grants unduly limited the power a president should have in determining what parts of his institution needed particular emphasis, and that he should have a "block" of money to distribute as he sees fit. The National Association of Land Grand Colleges and State Universities and the American Council on Education, both organizations of institutions represented by their presidents in meetings, as well as several other higher education organizations have gone on record in favor of this approach. The implications of such legislation for libraries, when and if introduced, if designed to take the place of categorical grants as now seems intended, are obvious. In fact, it was lack of attention to and consideration of libraries by college presidents which led to categorical legislation in the first place. Although it must in fairness be said that consideration for libraries has noticeably increased during the past decade, it is still difficult for many administrations under the strong pressure for salary increases, and for other desirable items, to devote sufficient support to libraries without the incentive of categorical aid.

It should be said that implications of federal programs for college libraries to date indicate some hazards as well as some obvious benefits. Granting of money always involves some controls—otherwise it would be irresponsible use of public funds. Indeed, the selection of the area, such as libraries, limits the spending to that function, and is a form of control in itself. Of course, an institution or library does not have to take the money but, practically, if money is available an effort is usually made if possible to adjust programs to take advantage of it, whether or not the adjustment is really wise. Thus, when in Title IIA of the Higher Education Act the Congress directed the Commissioner of Education to give first consideration in the category of special grants to applications from libraries showing evidence of cooperative effort, hundreds of libraries hastily began forming consortiums or arranging some semblance of cooperation, whether a desirable arrangement or not, in order to qualify for funds.

Also, where grants are made on the basis of judgment by the administering agency, with or without the aid of consultants, as contrasted to ones derived by a mathematical formula, there is always the probability that some libraries received grants while, if the truth could be known, other more deserving libraries were passed over. Whether or not this is the case, a library not receiving a grant, or as large a grant as another comparable one, or a library school not receiving as many scholarships and fellowships as another, may raise doubts, which
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are completely unjustified, about the competency of its staff in the minds of the administration and real injury may result.

These results are not the fault of any one—certainly the administrative agencies make every effort to be as fair as possible—but there are disadvantages built into many federal grant programs. The advantages, however, of many added modern buildings, of increased local support, of national as well as local acquisition of materials, of training of librarians, of provision for research, and of centering attention of many on the potential future of libraries and their services—all during a few short years—must greatly outweigh any disadvantages experienced during this period.

The implication of federal programs then is bound up in the above—the demonstrated effectiveness of the continuation of federal and local support, the fact that some experimentation in the broader reaches of bibliographical control can best be done on a national basis and, above all, that librarians can dream and plan and, if their dreams are good and their plans sound, can have faith that a helpful Congress which has time and again shown its belief in libraries will not fail them in time of need. That, above all, is the implication of federal programs for libraries.

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Community Use of Academic Libraries

E. J. JOSEY

We are increasingly involved in a growing non-Yale community. The library is rapidly finding itself in the position of the man who is supporting two families with the wages from a job barely sufficient for one. The statistics for this past year detail the rising number of non-Yale users, within the Yale Libraries as well as through interlibrary resource sharing. The Library has actively cooperated in the library affairs of the State... Demands from the outside continue, encouraged by the University's open-door policy. Our desire is to cooperate to the fullest extent possible, but our means are already overextended. In concert with the Library, the University must define the role of the Yale University Library in both New Haven and the State.¹

The foregoing description of a great university library's involvement in sharing campus library resources with a growing non-campus clientele can be multiplied a hundredfold by college and university librarians all over America. There is considerable evidence that undergraduate students, and especially those from colleges whose libraries are woefully inadequate, are seeking library materials wherever they can find them. The public librarians on Long Island report that college students will drive thirty miles or more and raid public library collections for materials to support their studies.

Shank, in his survey of access to scientific and technical information in the metropolitan New York City area, supports this view by indicating that "individual users, particularly undergraduate students, wander far throughout the region to use library resources. Quite apparently their use is dictated largely by convenience of location of library facilities to their homes and jobs. The more difficult the problem and the more serious the need, the more the users turns to the major

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scientific collections in the region. Little attention seems to be paid to the rules by these people for access to the libraries." ²

In spite of the heavy burden placed on academic libraries by community users who seek unrestricted access to library collections, the first national survey of community use of academic libraries reveals that academic libraries are fairly liberal, for "94 per cent of the 783 libraries, permit to a degree some in-building use of library materials by persons who are unaffiliated with the institutions. Eighty-five per cent . . . said that they extend circulation privileges." ³

Since the survey referred to above was taken during the fall of 1965, there is mounting evidence that the growing demands by "outsiders" to use neighboring academic libraries are creating grave problems especially for college libraries that are unable, in some instances, to seat a sizable number of their own students and faculty. The pressure became so acute in the Chicago area that a conference was held to consider the problem of students using libraries other than those in the institutions of higher education in which they are enrolled. ⁴

Community use of academic libraries is a problem for the university library as well as the college library, as noted in the report of the Yale University librarian. In this paper, however, the writer will examine certain pressures which have forced undergraduates to seek library materials from other colleges; and consideration will be given to these and other reasons for an increasing number of outside users of college libraries. In addition, he will consider what might be done to alleviate the problem.

There is more than a tangential relationship between the "knowledge explosion" and the "publication explosion." There is more than what may be called an "interface." Between the two there is a very high degree of interpenetration, especially when one becomes aware of the fact that there is an annual worldwide publication of 400,000 books and 35,000 scientific journals with over 1.5 million articles. No one library will be able to acquire this enormous output from the presses of the world.

In most areas in the United States, there are no schemes or plans to provide for the comprehensive coverage of materials in the various subject fields. Many college libraries continue to develop their acquisitions programs in isolation from one another. While limited book budgets are purchasing only a portion of the vast publishing output, there is very little planning for joint acquisitions programs which will bring into a region or an area a wide range of resources, which could
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provide for full access to comprehensive collections in a larger number of college libraries.

While collection building is still being pursued in isolation from college to college, the library needs of college students are increasing because of changes in the curriculum. Broader courses of study, many of which are interdisciplinary, demand contemporary materials as well as retrospective sources. Students must read on a much wider scale; therefore, the library needs of undergraduates are extensive, because of changing curriculum patterns. Thus it is imperative that college libraries possess a wide range of materials or access to some reservoir to procure these materials.

Library requests from undergraduates show that they use a large volume of periodical titles as well as monographs. There are heavy demands for periodical literature in the humanities, social sciences, and the sciences, with a slightly higher demand in the sciences.

It is in the area of science periodical literature that most college libraries possess little strength. The most persuasive proof to support this assertion may be found in the words of J. L. Wood of Chemical Abstract Service. He writes:

the actual availability of the abstracted and indexed publications to our users has long concerned CAS. When CAS analyzed the library receipts data collected from 334 libraries for the 1961 list it was surprising to learn that 179 U.S. and 32 foreign libraries subscribed to less than 1,000 of the 9,734 abstracted journals. Only 79 U.S. and 11 foreign libraries had receipts ranging from 1,000 to 2,499. Twenty-six U.S. and 1 foreign library had receipts ranging from 2,500 to 3,999 and only 2 U.S. and 1 foreign library fell in to the 4,000-5,300 category. Even the collective holdings of all of the 334 libraries totaled only 9,078 titles or 93.3% of the total.

In order to gain a better insight to the availability of these abstracted publications, we looked at the combined holdings in three U.S. metropolitan areas. Collectively the 16 participating libraries in the metropolitan New York area only held 56% of the abstracted journals. San Francisco with 7 participating libraries had only 51.9%, and Detroit with 5 participating libraries had only 34.3%. In the best situation, New York, only slightly over half of the abstracted journals were locally available.

We must keep in mind that the preceding description of inadequacy in the coverage of periodical literature is in only one of the sciences. If the metropolitan areas of the United States are found
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wanting, then it is quite evident that the colleges of this country, that are for the most part scattered around in small towns, are poverty stricken in terms of scientific journal literature. The limited journal holdings of college libraries makes it mandatory for undergraduates to seek help at neighboring institutions.

Pressures of expanding and increasing student enrollment are part of the reasons for the demand to use the libraries of other institutions. Unfortunately, book budgets have not kept pace with the growing enrollment and the concomitant demands placed on the library for resources. In another budget category, it becomes crystal clear that there is little or no provision to provide budgets to enable libraries to extend their library hours. Consequently, undergraduates make use of other college libraries, because their libraries are not open a sufficient number of hours.

Another area of growing concern encompassing the motives of undergraduates in using the libraries of institutions with which they are unaffiliated stems from the fact that college professors on a number of campuses give assignments even though they are aware that their college libraries are unable to provide the resources. Many of these professors' modus operandi seems to be predicated on the assumption that the United States Constitution guarantees access to library materials in any library in the country. If this kind of assignment continues, it goes without saying that this problem will become aggravated before solutions are effected.

On the other hand, and related to the former, is the stark realization that faculty members make massive assignments and are not aware that their institutions' libraries cannot supply the materials. Too many faculty members in colleges cull their reading assignments from bibliographies in textbooks and from syllabi from favorite courses they had in graduate schools rather than making a judicious selection of materials available in the card catalogs of their college libraries.

The metropolitan areas of the country now account for approximately 70 percent of the population. There has been a continuing growth and development of new collegiate institutions in metropolitan areas. These newly emerging institutions do not have libraries to support their curricular needs. In short, the academic programs of these "have-not institutions" go beyond what their meager libraries can sustain. As a result, students from the have-not metropolitan institutions knock on the library doors of the older and prestigious institutions of these areas for library service.

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Most students show a considerable disregard of the fact that no affiliation exists with the institution that possesses the library material they need or can use. The pragmatic approach taken by these students is to use libraries most convenient to them rather than return to their college library in the evening and on weekends.

An example of a college library that has a community use commitment and lends liberally to its neighboring community is reflected in this account:

The relationship of the college library to external communities is also of consequence to its campus relationships. These external communities are bounded on the one extreme by borrowers who are serviced on a national scale through inter-library loans, and on the other by borrowers who live nearby. The prominent place of the library's holdings in the Union Library Catalogue of Pennsylvania perhaps leads to an unusually large number of the loans to the first group, while the presence of two community colleges and the establishment of an extension campus of Pennsylvania State University in the area—in addition to the requirements of neighboring established colleges—strongly indicates a growth in the second group. . . . Last year, off campus borrowers who came to the library accounted for one-third of the circulation of books from the library's stacks.

There is also a growing demand on college libraries to supply materials for the community person who is upgrading himself through various continuing education programs. In too many instances universities offer extension courses and make no provision for library service. Consequently, individuals who are enrolled in the courses flock to the nearest college library for service. By and large, if this person is a local teacher, an alumnus, a member of the clergy, or a local resident, and if he can identify himself, library service will be extended.

We are living in an age, Gardner reminds us, where we must "educate for an accelerating rate of change," therefore, thousands of professional citizens who must stay abreast of new developments in their fields must renew themselves through formal adult education courses or bear the burden of educating themselves. Thus, in the years ahead, college libraries are expected to supply a vast array of library materials for the educated citizen, who may not be affiliated with their institutions.

Although the college library's primary mission is to serve its students and faculty, it must begin to coordinate its resources with growth and development of other institutions in its immediate region in order to
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support persons who are pursuing their own education. Coordination
and cooperation with the public library are essential because a
large number of adults are enrolled in continuing education programs
which constitute, for the most part, one or two courses a semester. In
too many instances, these part-time adult students very seldom use
library facilities of the college. Hence, they depend primarily on
public library resources to sustain and support their studies. In view
of this fact, it is imperative that college librarians apprise public
librarians of the nature of these courses, so that these materials will be
available in the public library.

The foregoing admonition is not intended to convey the impression
that the college library does not have any responsibility to part-time
adult students. The truth of the matter is that people who are working
full-time or who have a minimum amount of time to spend in the
library prefer the close proximity of public library facilities and rarely
return to the academic facility if it is located miles away. Since most
public libraries are unable to offer adequate library service to the
serious research library user, we find that this person crowds out the
college library facility. The only viable solution seems to be the en-
couragement of cooperative efforts between the public library and
the college library in order to meet the needs of the serious part-time
adult student. One excellent example of cooperative efforts between
various types of libraries which include the public library and the
college library is New York State's 3Rs Program.8

Another type of unassociated or extramural college library borrower
is the serious researcher who no longer pursues formal study; he is a
writer, artist, doctor, lawyer, scientist, or poet who may live within
proximity of the college library. Usually, this person needs library
materials for his professional work, his research, or for speech pur-
poses. Many college librarians report that these people turn to the
local college library before they seek assistance from the local public
library. They are granted in-building use of the materials and in most
cases circulation privileges are extended, if materials are not on re-
serve. There is a respected body of opinion which believes that if the
academic library serves these citizens, it will thwart the development
of the public library.9 There is some justification in this belief; but if
there is coordination of the total library resources of a region, with
adequate safeguards which will not stymie public library development,
perhaps there is little cause for concern.

How can we insure access to library materials, and, at the same
time, protect the college library's primary clientele—its faculty and
students? The National Advisory Commission on Libraries' report
indicates that "the requirements for effective library and information
access for students, scholars, and practitioners in various disciplinary areas and at various levels display sharp and complex variations.” The Commission also suggests that “it is apparent that public, school, and academic libraries will all be obligated to change many of their methods of work, their interrelationships, and some of their roles and objectives in the years ahead.” Through new interrelationships, which, in all probability will be in the form of regional cooperative library programs, college libraries can become a part of the solution for providing ease of access to research library materials.

Community use of academic libraries will increase rather than diminish so it behooves college librarians to cultivate the cooperative attitude and develop cooperative library programs among various types of libraries. What kind of cooperative programs should be developed?

To insure a wide range of materials in a wide variety of subject fields in a region, a cooperative acquisitions program which will serve the total research library needs of the area is a necessity. Union lists of serials will help prevent the duplication of serial titles in the region, thereby making it possible for a larger number of different titles to be collected by all of the area libraries. A joint storage center for lesser used materials would certainly ease shortage of library space in all types of libraries. These three cooperative projects listed above by no means exhaust all of the possibilities; they represent only a beginning. The institution of these three programs would remove the isolation of libraries in a region and also would enable the service of all of the libraries in a district or region to be extended and improved even further. Eventually, cooperative programs would provide effective access and unrestricted access to all the library holdings of a region by all citizens who need research materials.

One note of caution must be sounded for library cooperation. Each library in a cooperative program has the obligation to provide basic library service to its own clientele. The cooperative scheme as outlined above is to provide resources collectively that one institution is not able to do on its own. A cooperative program alone will not solve the pressures for community use of academic libraries. A cooperative scheme only assures quick and easy access to research library service, which the individual college library is unable to do alone.

It should also be emphasized that if every college library in America on a certain date decides to give service to all community users after having joined a cooperative program, there are still unresolved questions. The first question that must be defined is, who is the community
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user? Secondly, what is effective and easy access to college library resources? Thirdly, what do we mean by access—on-site use or interlibrary loan? How do we justify the fact that the material is on loan to a community borrower when a campus borrower is demanding the same material? These are thorny questions and they may not be answered until in the words of the National Advisory Commission's report, "What we know today by the term 'interlibrary cooperation' will be superseded by a much more fluid pattern of providing access to distant users without preventing concurrent access by local users." 12

The college library's role to serve its primary constituency—its officers of instruction, faculty, and students—is directly challenged by the emerging library networks and national informational systems. Although college libraries have never had a sacred obligation to serve the general public, historically, they have contributed to the larger library community through interlibrary loan and, to a degree, on-site use of materials. It appears then that a large number of college libraries will be ready to join the emerging national informational system. Those that have not experienced open access policies must of necessity begin to plan for limited access programs, which, after providing adequate safeguards, will put their resources at the disposal of regional and national networks.

Finally, it is clear that college libraries cannot ignore the community use of their libraries, for if America is to have a real national informational system, and if college libraries are to benefit from this system, it is equally clear that college libraries must be consistent and equally share their resources. The issue is not whether to serve community users of academic libraries, but which community users to serve and how to keep service in balance in order not to dilute service to the academic library's primary constituency. This can be consummated, but, if it is to be successful, research and great creative effort are demanded. It is at the peril of our hopes and dreams for a national informational system that college librarians seek a return to the college library functioning in isolation.

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Personnel and Manpower Needs of the Future

HELEN M. BROWN

Library administrators and educators coming together to consider ways to meet the library manpower shortage have noted the poverty of pertinent factual data. This lack of information, defeating confident planning for the future, has been recognized by the ALA Ad Hoc Committee on Manpower Problems, which has recommended that a series of studies be developed in all types of libraries to analyze the work done in each library in order to encourage experimentation, demonstration, and observation of the proper use of manpower in libraries. Paul Wasserman and Mary Lee Bundy, directors of the long-range research project in library manpower for the 1970's, now under way at the University of Maryland, point out that the situation in libraries is particularly complicated by the state of change in the field. The Maryland study purposes to assess the direction of the field through analysis of advanced prototype forms of information service and library programs. It is therefore reasonably certain that within a few years a significant literature of manpower utilization will have been built up for the guidance of planners in all kinds of libraries. The purpose of the present article, lacking the benefit of research in depth, is to suggest some of the viable forces within and without librarianship which will inevitably shape the American college library staff of the future.

For the past twenty-five years, librarianship has been very slowly moving in the direction of professionalization. One important principle of a profession, the clear distinction between the work of the professional and the work of the non-professional, has been violated in countless libraries. Library administrators have been too complacent, too restrained by local circumstances or too little possessed of the management viewpoint to base their staff organizations on actual job analyses and have been content to employ graduate librarians in positions involving duties which might be performed as well by good non-

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professionals. However the manpower shortage is now forcing administrators to give more than lip service to performance of professional tasks by librarians and to the employment of supporting personnel for the remaining library work. As Harlow predicts, the full staffing of our libraries in the future will require radically overhauling the organization and responsibility of positions and people.

It has been estimated that the work force below the professional level will require over 145,000 additional personnel in the next ten years. Since in-service training on this scale would be wasteful and burdensome to individual libraries, some standardized pre-employment training is regarded as desirable. An Interdivision Ad Hoc Committee of the Library Education Division and the Library Administration Division, of the American Library Association, charged with the responsibility for preparing a statement of definitions of the subprofessional or technician class of library employees and developing classification specifications, has submitted a pioneering report. The report recommends recognition of two levels of service between clerical and professional staff, library clerk and library technical assistant, and proposes classification standards and typical duties. College librarians may have some reservations about this report since they may prefer to employ in certain positions assistants with more liberal education than that represented by high school graduation, which is the basic general education specified for both subprofessional levels.

This possible objection is met in the important Asheim proposal "Education and Manpower for Librarianship, First Steps toward a Statement of Policy." Asheim states as his thesis that the professional segment of the library occupation is responsible for the definition and supervision of the training and education required by all levels of personnel within the occupation. He suggests a modification of the definition of the subprofessional recommended by the Interdivisional Ad Hoc Committee. In addition to the library clerk and technical assistant categories, Asheim would create another level with the title "library assistant" to designate personnel whose duties would be essentially preprofessional and of whom the bachelor's degree would be required. The proposal, if accepted by ALA and implemented, would do much to solve the manpower shortage although this benefit would be peripheral to its real purpose which is to upgrade the responsibility and education of the professional. If the introductory material and basic technical training which now clutter our graduate library school programs could be covered in training programs for
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supporting personnel, it should be possible to redesign the professional master's programs. They could be less vocational and much more professional and would provide a continuing educational experience for persons qualified to assume greater responsibilities. According to Asheim, the college librarian of the future should possess an undergraduate education in the liberal arts; a grounding in a professional core of basic principles, theories and their practical application relevant to the ordering of knowledge and its dissemination to and interpretation by users; a knowledge of human relations, psychology and principles of administration; and additional concentrated study in some of the academic disciplines and knowledge of scholarly and research materials.

The control of entrance into the occupation through the setting of standards for education and training is a characteristic of a mature profession. However, librarians should probably heed Jencks and Riesman's warning against overstating the degree of professionalism to be found in any occupation. Like the engineers in these authors' example, librarians are usually employed in institutions, are almost wholly at the disposal of their employers, and so far have not moved collectively to set the terms of the relationship. One can conjecture hopefully that ALA will follow AAUP in this respect, thus moving further along the line of professionalization.

A second major trend which will affect college library staffs in the future is the increasing democratization of the policy-making function. Warren Bennis offers the theory that democracy becomes a functional necessity to a social system competing for survival under conditions of chronic change. Certainly American industry is adopting widely a new style of management which stresses full and free communication throughout the organization, the concept of influence as based on technical competence and knowledge rather than on position in the administrative hierarchy, acceptance of the inevitability of conflict between the organization and the individual and a reliance on consensus to manage this conflict.

Although Bennis asserts that universities have been slower to accept democratization than most other institutions, the 1966 Statement on Government of Colleges and Universities, formulated jointly by the American Association of University Professors, the American Council on Education and the Association of Governing Boards has remarkable implications for institutional reform. Bertram Davis, General Secretary of the AAUP, notes the import of the provisions that the
president should have the confidence of the board and the faculty; that adequate communications should be established among board, administration and faculty; and that there should be restraints upon the exercise of arbitrary authority when there is conflict between faculty and administration. He points out for special comment the provision that the president's leadership role is supported by delegated authority from the board and faculty. "The faculty's authority, it is clear, rests not upon presidential understanding or largesse, but upon the faculty's right, as the institution's foremost professional body, to exercise the preeminent authority in all matters directly related to the institution's professional work. The president, in short, is not the faculty's master. He is as much the faculty's administrator as he is the board's, and the institution which accords him any other role has failed to appreciate the principles on which a successful academic community must be built." 9

The Carnegie Corporation has initiated and supported a study of the future liberal arts colleges, for which twelve "profile" colleges were selected as models of "how a college can be what it ought to be." Keeton and Hilberry, reporting on one phase of the study, predict that the dominant styles of leadership will change radically within the next twenty years in the direction of bringing new and more autonomous roles for the faculty, students and administrative officers. This is already happening in the profile colleges, fully two-thirds of which are becoming engaged in associations, unions, centers or collaborative enterprises which are undercutting conventional, hierarchic patterns of government. In almost every one of the profile colleges, students are seeking—and getting—greater influence in college policy decisions.10

These signs would indicate that in libraries, too, the policy making function will tend to become decentralized. There have already been examples of staff demands for influence in policy decisions in large public and university libraries.

Bundy and Wasserman 11 maintain that it is essential for professionals in libraries to assume decision-making responsibilities in relation to goals and standards of service. They urge the centrality of the client relationship in the work of the professional and point out that the professional's commitment to satisfying immediate client needs frequently runs counter to institutional requirements for economy and service on the principle of the over-all good of the largest number. The authors' strictures on the institution-oriented library administrator
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are severe and they suggest that what is needed is a "fundamental administrative reorientation toward an institutional climate which advances the professional spirit and yields organizational responsibilities to the professional group." While Bundy and Wasserman seem to be thinking in terms of university or large public libraries, their discerning analysis is equally applicable to the college libraries.

A third force to be considered in planning for the future development of our college library staffs is the rapid advance of technology and its successful application to solving problems of libraries. The computer already has the capability of freeing libraries from the drudgery of catalog searching, preparation and filing of catalog cards, and the maintenance of circulation files. These benefits, in all or part, have already accrued to some fortunate libraries, especially to libraries in universities, in large public library networks and in new, publicly supported colleges. It is doubtful that totally automated systems will soon be available to established college libraries because of the very high cost of computerizing their existing collections. Those who speak airily of the future college library having no need for technical services have simply not thought through the special problems of the college library with its need for selective acquisition, for older material, and for speed in meeting faculty and student needs.

Benefit from automation, however, is more feasible with respect to current acquisitions, either with home-based equipment, through participation in cooperative projects or through use of commercial services. When MARC tapes become available, and especially when the program includes works published in languages other than English, the tapes will be purchased and access to computer time will be sought by college librarians.

At the present time, college librarians are offered commercial services of various kinds, such as the Books-Coming-Into-Print, the computer-based program of Bro-Dart. The program covers English language publications and in essence assumes the book selection function for the individual college library according to a "profile" submitted by the library. Full cataloging and processing services are offered for firm orders. Other commercial services will prepare complete sets of cards from copy supplied by the college library.

College library administrators will need to be alert for the point at which a computerized operation could profitably (from the standpoint of service as well as economy) replace personnel on their technical services staff. Similarly, the precisely right time for the automa-
tion of a circulation system will depend upon local factors such as the size of the library's clientele and the efficiency of the existing manual or data processing system.

Another force of consequence to the personnel needs of college libraries is the involvement of the federal government in support to libraries, especially through the provisions of the Higher Education Act of 1965. Title IIC which authorizes appropriations to the Library of Congress for the purpose of insuring that the Library acquire all library materials of value to scholarship and of providing and distributing catalog and bibliographic information, has had very great effect on academic libraries of all sizes.

At the San Francisco Conference of ALA on June 29, 1967 a program to discuss the impact of the National Program for Acquisitions and Cataloging was held under the auspices of the Association of College and Research Libraries and the Resources Committee of the Resources and Technical Services Division of the ALA. A version of the program edited by Norman D. Stevens has been published. While the participants in the shared cataloging program are primarily research libraries, some large college libraries are included. In any case the substantial impact felt on the technical processes in the participating libraries has certainly begun to be felt also in other academic libraries that use Library of Congress cataloging copy. Among specific points made were these: the Library of Congress is providing a successively greater proportion of the current catalog copy needed by libraries; the program makes possible the accomplishment of a greater work load without increase in personnel; the "pre-cataloging" function can be reliably performed in the order department with a resulting elimination of duplicate effort; cataloging with Library of Congress copy can be accomplished entirely by clerical personnel.

John Dawson agrees that much work traditionally considered professional can be done well by non-professionals. He considers suitable for assignment to non-professional personnel such functions as, cataloging with Library of Congress cards, original cataloging under the supervision of a librarian, verification of entry and checking to prevent duplication. Dawson does not minimize the difficulty, especially for small academic libraries with small staffs, in distinguishing between professional and non-professional activities. However he maintains that this is essential and his advice, that we must persuade our colleagues to abandon the comfortable prejudices of the past and to learn to trust in the abilities of others working under professional
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tutelage and supervision, is particularly cogent in the area of technical services work which has benefited from the Title IIC program.

A fifth force which will influence the college library staff of the future is the growing urgency for granting academic status to college and university librarians. Trends in this area are closely watched by the Academic Status Committee of ACRL's University Libraries Section and a recent paper by Carl Hintz, published as a committee report, states that "the move to grant academic status to librarians has been the prevailing trend for a number of years and is now generally accepted, although the exact definition of academic status remains uncertain." 16 Of eighty-seven respondents to a questionnaire sent to one hundred major American academic institutions, seventy indicated that their librarians held academic status in some measure. Of the seventy, twenty-six reported that librarians held full faculty rank and title; thirteen reported patterns of equivalent rank; seven reported patterns of assimilated rank and a fourth group reported an array of diverse patterns impossible to classify.16

On the other hand, Madan, Hetler and Strong, who recently conducted a nation-wide survey of four-year state colleges and universities to determine the present status of librarians, concluded that the conditions of librarians have not changed significantly in the past ten years.17 The discrepancy obviously stems from the strict definition of "full faculty status" which the latter survey applied. "Faculty status' entails complete equality with the academic faculty in regard to rank and titles, promotion criteria, tenure, sabbatical leave, rates of pay, holidays and vacations, representation and participation in faculty government and fringe benefits." 18 According to this definition, only 14.2 percent of the reporting libraries grant full faculty status to librarians, although almost two-thirds of the respondents consider themselves as having full faculty status. It is apparent that academic status is badly in need of definition.

The ALA Ad Hoc Committee on Manpower Problems urges the development of a position paper on faculty status for academic librarians on the basis of which ACRL could adopt an official position and plan for its implementation. The committee points out that such a paper must consider the obligations and responsibilities of librarians holding faculty status, as well as the privileges.19

There is not unanimity among librarians with respect to academic status. Another viewpoint is expressed by Daniel Bergen who argues that librarians and teachers belong to different subcultures within
the collegiate setting. He holds that the borrowing of faculty status symbols will in no way solve the problem of developing colleagueship with the teachers. He attributes this borrowing to the library profession's failure functionally to differentiate the work of the librarian from that of the non-professional. Bergen believes there is little opportunity for the academic librarian who is neither subject competent nor skilled in research to be more than ancillary to the discipline-oriented status system of the teaching faculty.\(^20\) The sentiment for considering librarians a separate professional group in the college hierarchy is seemingly a minority one. As the emerging pattern of education for academic librarianship, together with the sharper definition of the work of the professional, gradually becomes effective in individual academic institutions, the traditional resistance of college administrators and faculties toward the granting of academic status to librarians seems likely to disappear.

These five prevailing forces tend to interact and reinforce one another. Their total effect will be to produce a revolution in the organization and staffing of college libraries. They should also heighten the attraction of the library profession to the well-qualified young people who will be needed to serve the innovating college library programs of the future.

The current state of change in the profession presents an enormous challenge to practicing librarians. During the library manpower program held within the 1967 ALA conference in San Francisco, some 3,000 persons addressed themselves to these problems in 130 discussion groups. Numerous helpful suggestions for action came out of the discussions and the most useful of these were summarized in the report of the ALA Ad Hoc Committee on Manpower Problems.\(^{21}\) College library administrators may profitably adopt the suggestions for the redefinition of library goals, for the continuing education of library personnel, for task analysis and job classification, and for measures to overcome resistance to the new ideas of library organization and employment of staff.

The restatement of goals, and along with this, the identification of new kinds of positions needed to achieve these goals, is particularly urged since librarians may be so busy with their daily concerns that they fail to see the need for change. A recent, outstanding example of such a statement is the Swarthmore report \(^{22}\) with which college librarians will want to become familiar.

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be a concern of college library administrators, and librarians must take the time and effort to avail themselves of these opportunities if they are to fulfill their new responsibilities. Study may be in a subject field, in management and human relations, in information systems or in an advanced field of librarianship. A study by Jesse and Mitchell of professional staff opportunities for study and research, based on information from fifty-two research libraries and fifteen college libraries, disclosed that there is one means of improving the librarian's education which is almost universal, and that is the policy of permitting him to interrupt his working schedule to enroll for course work in the institution in which he is employed. Administrators should further encourage such study by granting the time and by negotiating for the remission of tuition. Where sabbatical leave opportunities are not available to librarians, the administrator should consider alternate plans for providing librarians with the necessary time for further study and research, such as the practice of granting periodically scheduled summer leaves.23

A unique aspect of the academic library's personnel is the pool of students available who bring high intelligence and competence in language or subject to their work. In 1961-62, 14 million hours of student help supplemented the work load of non-professional staff members.24 A college library's task analysis and job classification should be extended to cover this group, especially in view of current student demands that work assigned under scholarship programs be relevant to their interests.

It is inevitable that some experienced college librarians will resist the changing definition of their role because of feelings of inadequacy. The generalist reference librarian will feel insecure because of his lack of special subject ability. The technical services librarian may feel personally unsuited to the training, supervision and revision of the non-professional and student assistants who will be assuming many duties formerly performed by the librarian himself. It will be the part of the college library administrator to provide for these people, to the extent possible, the means of overcoming their deficiencies and, by example, to lead them to welcome the challenge of higher professional responsibility.

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Trends in Cooperative Ventures Among College Libraries

B. E. RICHARDSON

ELEVEN YEARS AGO, Eileen Thornton presented an analysis of cooperation among college libraries. Of financial and other statistics, she had presented, Thornton wrote: "The pertinence of these data to a study of cooperation on the college level is this: staffing is minimal, money so meager that it must go into bread-and-butter materials, and collections often too small for the demands placed upon them. There are outstanding exceptions in every category, but the broad picture is one of small institutions with small libraries, spattered across the map of the country."¹ She summarized: "Characteristically there are few satisfactory instances of worth-while cooperation among the lesser libraries, at least there are few reported instances of successful cooperation."²

Seven years ago, Helen-Jean Moore wrote on the cooperative efforts of five academic libraries in Pittsburgh: "Each entity is fundamentally concerned with providing for its own students, faculty, and staff, and since these individuals have to use similar sources for their results in knowledge, each of the five libraries is spending a large percentage of its funds yearly to buy exactly the same books, periodicals, and documents as are purchased by the four neighboring institutions and a large percentage of its annual budget to provide parallel services."³ From this situation, Moore goes on to describe the positive movement toward cooperation which had been made; ⁴ so, it astounds one to read in 1967 that, "The Pittsburgh plan apparently floundered when each institution went into more and more areas where library agreements had already been reached."⁵

Trends in college library cooperation today differ slightly from those of a decade ago. Before attempting to identify these trends, a sketch

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of the academic background which compels pursuit of cooperative solutions to library problems might be useful for establishing a perspective.

The plight of the college library today is apparent—it is riven and driven by supra and collateral, and often conflicting, forces. Most college libraries have lagged in personnel, program and funding even when other components of the college have enjoyed support for growth. Historically, the library has been a minor influence in campus politics and one of the last to benefit from positive analysis in spite of the assistance of faculty committees and countless surveys.

Today, the population explosion couples with the knowledge explosion (and its attendant mushrooming of printed, taped, and recorded information) to accent the already acute situation in college libraries. Demands by administration, faculty, and student body exceed any bounds which even the most handsomely funded and excellently managed college library can hope to meet through solitary effort; consequently, cooperation among college libraries has been a popular topic in recent years as librarians strive to find solutions to the barrages of criticisms fired at them. Even if partially satisfied with general efforts to alter and improve their colleges in a rapidly changing world, most faculties and administrations consistently complain that library administration is deplorable, collections inadequate, and services too few and old-fashioned.

Unfortunately and too frequently, these accusations may be true. Most librarians would agree. Most could find solace as they roam their stacks by murmuring, "I wander, naked and afraid, in a world I never made," for college librarians do not much shape their libraries; college libraries are generally shaped by decisions made elsewhere on campus. Libraries reflect faculty decision and therefore the library is not the master of the faculty, it is the servant. The library does not make college policy; it attempts to serve it. The library problem hinges on college policy or, more frequently, the lack of policy. For most of the past century, regardless of budget, size or location, colleges followed similar patterns: much rote work, many lectures, general reliance on one or two textbooks, and little use of library facilities or collections. Typically, the library holdings were small because college programs were few in number, limited in scope, and lacked financial support.

Suddenly, all of this changed. Smaller and poorer then, the World War II G.I. Bill support lured colleges down primrose paths to bloated
enrollments, specialization of programs, and modernization of plants. Since then, there has been no surcease from pressures. Sputnik again loosed the strings of federal and private foundation money bags. While colleges still reared and bucked from those golden spurs, foundations with their granting fingers pointed out that man neither began nor will he end concentrated on that tiny land mass which is the sub-continent called Europe; the non-Western world flashed into focus on the college screen.

To compound the difficulties, dual forces exerted influences from below and above: Sputnik triggered programs at the secondary school level which sent hordes of better prepared, more demanding students to college. They required more than old lectures, a textbook, and rote learning; at the same time, graduate schools required greater preparation from their candidates for entrance. To top it all, in the fifties and sixties, the wretched human condition of many Americans (and selected aliens) erupted into prominence and brought support for the social sciences; and today, a trickle of priming support is reaching the arts and humanities. The resultant chaos on campuses is almost overwhelming and in no area is this better demonstrated than in academic libraries.

The proliferation of programs, departments, and courses, the creation of entirely new areas of instruction, and, perhaps the most dramatic and crucial, the efforts to build and to maintain science departments which will attract and hold students and research-oriented faculty—these are obvious examples of developments which require enormous investments of library time, money, and imagination. The more dynamic the college, the greater the effort to remain on top of problems, and the more pronounced becomes the library's lag behind program demands.

Not only has the subject matter changed drastically in some cases—science, for example—but methods have altered and the ship of automation which looms on the horizon, not in many classrooms or libraries yet, nevertheless it performs expensively but adequately in the business offices and is a growing threat to the status quo.

More and more frequently, colleges are permitting ever-increasing numbers of selected undergraduates to pursue individual research projects in all disciplines, research which makes totally unpredictable demands upon the college library. Graduate school techniques and permissiveness have invaded both urban and rustic groves. Meanwhile, back in the library, the gap between the collection and program de-
mands has widened to a seemingly unbridgeable chasm. With rare exceptions, today's college operates as if it were a miniature university. The unvoiced but very real aim of being all things to all men is doomed to failure; consequently, the library can never achieve a satisfactory level of service within its present undefined setting.

Regardless of the degree of excellence attained by a college library, it is hamstrung and buffeted by the well-intentioned goals of administrations, the ill-advised decisions of faculties to add more and more programs and courses, and the whims of transient faculty and student populations. Limited funds are squandered on resources and services which are endlessly duplicated on campus after campus and which stick out like unlovely, useless warts when enthusiasm for the latest idea wanes or the demanding specialist moves on (taking his grant with him) to be replaced by a faculty member whose interests and demands on the library are antipodal.

The solution seems obvious but unattractive: if it is hopeless to attempt to be all things to all men, there must be definition. To define is to limit. To limit is to threaten faculty autonomy. At this point the entire investigation must be terminated, or it is sentenced to dormant life imprisonment while it is turned over to a faculty committee for further study.

More unified than anything else on a college campus is the universal belief that the mismanaged library is the major obstacle to obtaining better faculty, to attracting more and better students, to receiving national acclaim and the flow of gold from taxpayers and foundations, and, in fact, to ending the general blight on the college progress.

Trends in discussions of cooperative venture among college libraries still tend to ignore the causes of college library inadequacies and attempt to solve the unsolvable by group action instead of playing solitaire. Attempts to bring relief to college libraries fall into but a few patterns and are concerned consistently with a limited number of problem areas which may be amendable to cooperative solutions. These areas might be broadly categorized as no more than two—acquisitions and services—and it would be hazardous to draw fixed boundaries separating even these two.

Efforts to streamline and improve seem to involve overlap; nevertheless, both previous and present cooperative ventures concentrate on relatively few types of programs. Library literature indicates a pattern of duplication of cooperative ventures among groups just as duplication of individual library efforts, collections, and services flour-
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ish. Among the frequently attempted solutions are union catalogs, union lists of periodicals and/or serials to facilitate interlibrary loan, non-duplicating acquisition agreements, open-door policies for faculties and/or students, the establishment of central storage centers, the creation of a common research center, and varieties of centralized technical processing.

Legalized and informal associations exist in all parts of the country, e.g., in Kansas, in Oregon, in eastern North Carolina, or as the Associated Mid-Florida Colleges, the Tri-State College Library Cooperative, the Claremont Colleges, the Associated Colleges of the Midwest, the LIBRAS in Illinois, the College Center of the Finger Lakes, and so on. Many of these organizations have existed for several years to serve the total institutions involved and formal effort to spark library cooperation among participants is a comparative afterthought. Spurts of activity in the past few years bear an unquestionable, direct relationship to a federal willingness to consider funding of cooperative library activities.

Because of similarity of efforts, of funding, of goals, and of the level of success attained by the majority of cooperative college library ventures, an examination of only the most prominent should be most fruitful. Honnold Library of the Claremont Colleges group incorporates all phases of cooperation and succeeds to a far greater extent than other efforts for two obvious reasons: the six colleges are for all practical purposes on a single campus and the administrations, faculties, students, and librarians involved accept the irrefutable fact that pooled effort achieves economies of operation, massive collection advantages, and a standard of service that dwarfs any level one of the six colleges could attain by spending its library budget individually. The Honnold Library is in practice a research center serving a university. The Hampshire Inter-Library Center strives for a similar goal but is less used because the supporting institutions are geographically separated (though not by many actual miles) and each institution maintains an extensive separate library. “With the staff established on a firm basis and use constantly rising—noteworthy for a library of ‘infrequently used materials’—the main problems seem to be how to maintain financial resources at a level adequate to satisfy the demands of the faculties of the four member-colleges and the decision on the best way to plan future acquisitions programs.”

Two other approaches to cooperation have been widely publicized: the Ohio version of comprehensive, automated library service and the
New York State Library facsimile transmission system (dubbed FACTS). FACTS was handsomely funded and fully operable for a reasonable test period. "The conclusion drawn from this was that a conventional interlibrary loan service, operating with a time span of two weeks from request to delivery, would probably be satisfactory for New York." Although the FACTS experiment could not qualify as a college library cooperative effort, the problem of rapid interlibrary loan is common and the "high cost per request filled, which was $62.10," can be accepted as a fairly representative figure by college libraries investigating this avenue for succese.

The New England Academic Libraries' experiment in centralized processing is not mature enough to indicate its usefulness, economy, or appeal, but should be a definitive operation and may offer new directions as a profession-wide dividend from the Council On Library Resources' substantial investment.

One other cooperative project underway is worth mentioning because of its unique aspects. "Beginning in January of 1969, the Associated Colleges of the Midwest (ACM [put into] operation the first phase of its library cooperation program, a periodical bank. It consists at the outset of a store of some 1500 titles, . . ., microforms being used whenever available. . . . Connection with the member libraries is through the teletypewriter. The desired material will be copied at the bank and mailed to the requesting library on the same day the request is made. . . . Copies of the table of contents of any periodical currently received by the bank will be sent out on standing order in any desired quantity to requesting libraries. The facility is located in the Newberry Library (Chicago) with the main ACM offices." If there are discernible trends in college library cooperative ventures, they appear to be variations on the Claremont Colleges Honnold Library to the degree permitted by geographic separation or an unjustified, act-of-faith pursuit of the answers in the miasmic land of automation. As Eileen Thornton said over ten years ago, there are few worthwhile cooperative projects among lesser libraries. Perhaps an effort to analyze contributions to this lack of spectacular successes might yield reasons for it.

As interlibrary loan based on union lists of periodicals is probably the most widely publicized single activity, examination is in order. Even casual examination quickly reveals that most such lists contain duplicated holdings. Most college libraries individually subscribe to and hold the same titles; therefore, an expensively produced union list
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compiled by equals does not provide a key to the extensive range of periodicals required by today's college programs. College libraries, therefore, should attempt to attract at least one major research library into their cooperating organization. As cooperation is a two-way street, consorting libraries may encounter reluctance unless the research library is required to extend its services by some legal obligation. The Pittsburgh plan for non-duplicating acquisitions exemplifies the roadblock: colleges require basic collections on campus to serve all disciplines, according to prevailing concepts.

FACTS demonstrated two things clearly: 1) instantaneous availability is a myth which has been dominating researchers who use libraries and 2) the cost of automation prohibits its use by libraries which have insufficient funds even for standard operations and acquisitions on-campus.

Trends in cooperation today do not indicate any revolutionary or imaginative approaches. The lack of astonishing successes does suggest a possibility to pursue. Communication is vital, between librarians and administrators, faculties, other librarians, and not least, students. If the idea persists that everyone on campus is entitled to the instantaneous availability of every phrase ever recorded, if every transient faculty member is permitted the freedom to squander funds on a pinpoint of interest in an esoteric area, if faculties continue to attempt by proliferation to convert all colleges into miniature universities, then college librarians face a dismal future of compounded frustrations.

To avoid the pitfall of irrelevant collections where a library has thousands of volumes but seldom the one which is needed, faculties must be educated to a policy of pertinent purchases. Everyone must accept the reality that a student can learn the techniques of research just as well from fifty pertinent books on the shelf as he can from that obscure title held only by the Huntington Library. A professor who publishes one paper a decade must settle for a two-week lag in obtaining that interlibrary loan item. Last, but certainly not least, administrations will be the first to understand, authorize, and support any cooperative library enterprise which holds promise of more service for the dollar spent.

To return to the ACM periodical bank—as an example of excellent communications, it is not revolutionary but it is unique. The most unique aspect of it is that ten college presidents, administrations, boards, librarians, and faculties endorsed the idea enthusiastically and comparatively quickly. The ACM periodical bank incorporates fea-
tures of acquisitions, interlibrary loan, rapid transmission, massive increase in service, and, not only requires no budget increase but holds promise of being an income-generating enterprise. Communication and support on the home campus is of paramount importance to the success of a cooperative library venture.

In summary, no new trends in cooperative college library ventures were discernible in a search of the literature and in a six-month, on-site (July-December 1967) personal investigation of publicized cooperative organizations; the familiar areas and efforts were proliferating as a reaction to the possibility of obtaining funding; and some sophisticated automation hardware was being tested. The conclusion is that only if a goal is defined can a librarian take appropriate steps to reach it. Only Stephen Leacock's demented character could get on his horse and ride off in all directions simultaneously.

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The Library-College Idea:
Trend of the Future?

SISTER HELEN SHEEHAN

For the last ten years, the library-college concept has increasingly engaged the attention of writers, readers and practitioners in the field of higher education. This recent development, however, was anticipated in both theory and practice by earlier articles and experiments. Louis Shores is generally credited with crystallizing previous thinking when he described a "Library Arts College" in a seminal paper given at the 1933 conference of the American Library Association in Chicago. Shores wrote, "the material unit of cultural education is the book. . . the library is the liberal arts' laboratory. Only the conception of the library as the college and the college as the library remains prerequisite to the birth of the library arts college."

By the sixties, Shores was speaking of the "generic book" and had broadened his concept of the "liberal arts' laboratory" to include use of multi-media and of technological advances ranging from programmed learning to dial access computerized systems of instruction. Basically, "The Library College is the inevitable culmination of the independent study movement. . . the essence of the learning mode is independent study at the individual's pace, in the library, rather than group teaching at an 'average' rate in the classroom."

Although both definition and institutional application of the library-college are contemporary developments, its beginnings go back to the earliest ideas of education as the drawing out of each person's individual potential for development. Robert Jordan,³ bibliographer extraordinary of the movement, traces it from the Alexandrian Library, through the English university tutorial system, to Carlyle's famous dictum, "The true university of these days is a collection of books." ⁴ Carlyle's thought was adapted by Ernest Cushing Richardson who

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SISTER HELEN SHEEHAN envisioned a university education as attainable with “absolutely only a student and a library on a desert island.”

Jordan cites educators like Harvard’s Eliot, Chicago’s Harper and Swarthmore’s Aydelotte, all of whom concentrated on the immediate, as opposed to the remote, contact of students with books and libraries. He also cites experimental plans, such as Antioch’s “autonomous courses” and Stephens’ plan of combining the office of librarian with that of dean, a plan which owed much of its success to the dynamism of the incumbent, B. Lamar Johnson.

In 1939, Johnson published Vitalizing a College Library: an account of the program at Stephens College, where, with support from the Carnegie Corporation, plans had evolved “for a library program conceived in terms of aiding each student to expand her interests and to meet her individual problems.” 6 Great flexibility in location and use of books and great encouragement to faculty to work with students in or near the library were significant factors in the success of the Stephens attempt to make “books a constant and natural part of the student’s environment.”

The Stephens plan had other features which are reflected in most contemporary approaches to the library-college. Among them is the emphasis on non-book materials—pictures, records, films. Most important is the tendency for teachers and librarians to merge into a single instructional staff. This synthesis is foreshadowed, and, to some extent delineated, in Harvie Branscomb’s 1940 study, Teaching with Books. 7

Although the Johnson and Branscomb volumes were widely admired and widely quoted, few institutions were remodeled along the lines proposed. In 1956, Patricia Knapp wrote that “librarians must share the blame for the fact that after fifteen years the college faculty is still not ‘teaching with books’ in the style proposed by Branscomb.” 8 Knapp’s proposal concerned the problem of library orientation, in its widest application. She urged initiation by the librarian and implementation by the faculty of a planned presentation of bibliographical skills as an integrated part of content courses, with continuity and sequence of learning experiences.

From Knapp’s initial suggestion there developed the program at Monteith, the experimental college of Wayne State University. Monteith, organized in 1959 with aid from the Ford Foundation, offered to a cross-section of Wayne State students a program in general edu-
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cation, in the liberal arts, designed to complement work in major or pre-professional fields. An element of the plan with many implications for the library was the use of small seminar-type classes for freshmen, with consequent close relations between students and faculty. Under a 1960 contract with the Office of Education, Monteith inaugurated an experiment in coordination between the teaching and library staffs. The aim was student practice and skill in both "acquiry" (the assembling of facts and information) and "inquiry" (the examination and analysis of the facts). The former can be done individually and independently and requires skill in bibliographical research; the latter needs the direction and stimulation of the teacher, whether in classroom, discussion group, laboratory, or library. The results of the exploratory research are detailed in Knapp's The Monteith College Library Experiment. The most important aspects of the experiment, from the viewpoint of this paper, are the integration of library usage with course and classroom, and the dual role of the librarian-faculty participants.

In the period between Louis Shores' "Library-Arts College" proposal and the Monteith project, many individual educators and librarians had developed an interest in a breakdown of the barriers between library and classroom. An important area of progress was independent study, with the concomitant increase in use of the library. Any account of the library-college movement would have to take into consideration this development in higher education. In the series "New Dimensions in Higher Education," there are several good overviews of the literature and practice, notably Winslow Hatch's Approach to Independent Study. Among the ERIC reports is Knapp's Independent Study and the Academic Library.

By 1962, interest in the library-college idea had matured to the point that Robert Jordan, then with the Council on Library Resources, and Virginia Clark, then at Kenyon, were able to organize at Kenyon College a "College Talkshop" on the experimental college and the library-college. The nineteen participants included administrators, faculty and librarians with a common interest in experimentation towards an ideal college, experimentation centered around the pivotal role of the library. From the group's deliberations emerged several concepts or elements basic to all subsequent discussions of the library-college. They covered:

Size: the college must be small for this sort of program,
Faculty: librarians should teach and faculty should share responsibility for the library,

Curriculum: emphasis should be on the interdisciplinary,

Student initiative: independent study should be the predominant mode of learning, and

Physical quarters: individual study carrels, faculty offices, discussion rooms, and classrooms should all center around the collection of books and other learning media.\textsuperscript{12}

The rapid growth of interest in the library-college is illustrated by the succession of conferences attracting increasingly larger numbers of participants. The 1964 Wakulla Springs Colloquium on Experimental Colleges\textsuperscript{13} centered much of its discussion on the pivotal place of the library in the academic program, with particular reference to plans for an experimental college at Florida State, Tallahassee. These plans incorporated the concepts stressed at the Kenyon Talkshop.

The Jamestown conference, in December, 1965, was the culmination of a year of great activity. The Library-College Newsletter\textsuperscript{14} had been started in May. This was a cooperatively edited and financed mimeographed newsletter which served as a vehicle for new ideas and for a lively interchange of opinion among the initiators and followers of the movement. Robert Jordan, who served as editor-in-chief, was responsible for two very valuable features, the register of experimenting colleges and the annotated bibliography of relevant books and articles.

Also initiated in 1965 were two of the most successful experiments to date. The first was the new program at Oklahoma Christian College, under Stafford North.\textsuperscript{15} Central to the plan is a learning resources center, where each student has an individual carrel, electronically equipped with access not only to books, but to various communications media, including dial access computerized programs. The second radically different program started in 1965 was that at Oakland Community College, under John Tirrell.\textsuperscript{16} There, too, great emphasis is placed on learning processes centered on individual work at study carrels in the library. Classrooms are practically eliminated; lectures are few but of high quality, and faculty work with students at their carrels or in small discussion groups. There is concentrated use of taped lectures and directions, filmstrips, and records, to complement the use of the printed word.
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Syracuse University was host for a June, 1965, conference, Libraries and the College Climate of Learning. One of the papers, Jordan's "The Library-College: A Merging of Library and Classroom," incorporated much of what had previously been thought and written on the movement.

In December, 1965, Jamestown College, Jamestown, North Dakota, held an invitational conference on the library-college, the first meeting called for implementation of the idea in a specific situation. President Dan Sillers had been working for some time with his faculty and students, analyzing the educational process and searching for ways to improve that process. To Sillers, the library-college seemed the answer to the problem, and he assembled a group of eighteen leaders in the movement, with a dozen Jamestown personnel, for an intensive study of the situation. The record of this workshop, The Library-College, is a comprehensive review of theory and practice in the area. Participants planned an ideal library-college, associated in details with the conditions then existing at Jamestown, but not limited to any one campus situation. In the record volume, the editors included the first four issues of the Library-College Newsletter. They also reprinted in full or in part, several papers which have been cited in this paper. The book concludes with Jordan's selective, but very comprehensive bibliography.

Drexel Institute's School of Library Science, under John Harvey, hosted the next national conference on the library-college. This was one year later in December, 1966. Theodore Samore acted as director, and the 200 members of the group represented a wide range of interests, with important contributions by professors and administrators from various colleges. During this conference, the group most involved in the movement organized as the "Library-College Associates," and plans were made for a quarterly periodical which would replace the mimeographed Library-College Newsletter. Howard Clayton, then Librarian at Brockport, State University of New York, was named editor, and the newly formed Associates were publishers. Formation of this group followed some years of meeting, more or less formally, at ALA conferences and midwinter meetings.

The first issue of the new journal appeared in February, 1968. The title was The Library-College Journal, a Magazine of Educational Innovation. Its success was beyond all expectations of the sponsoring group. By the time the first issue appeared, there were 1,200 subscribers; three times what had been hoped for as the minimum which
would carry costs of publication. The announced policy of the journal was to act as a forum for discussion of the library-college, and, in the tradition of spontaneity which had characterized the Newsletter, to stress the themes "(1) of making the academic library more viable in the educational process, (2) of innovational teaching practices that involve the library in its generic sense, and (3) of creative changes in the established ways of doing things educationally." 21

The foregoing outline delineates the rise of the so-called "movement." It is apparent that the concept of the library-college is the logical development of previous efforts to center education in the learning process, rather than in the teaching process, to encourage initiative and independence on the part of the student, and to bring the student to grips with original thought as expressed in books and other media. This learning mode does not eliminate the teacher, but, rather, eliminates his function as middleman, as warmer-over of the available mental fare. The teacher would be cast in a triple role; as inspirer, guide, and correlator. It is in the second role, that of guide, that librarians are particularly at home and well prepared to function.

Emerging from the literature and from various experimental situations are two approaches to the teaching function in the library-college. The first, both more orthodox and more easily realized, is the collaboration of teaching faculty and library faculty but on a scale and with a continuity far more extensive than in the past. The second approach would merge the two groups so that all teachers would be librarians, and all librarians teachers. This is an attractive idea, but the practical difficulties are enormous, involving both psychology and pedagogy. Psychologically, there is no more insuperable obstacle than college faculty devotion to the status quo. A proposal as radical as this one would affront the most liberal of professors. Pedagogically, there simply are not enough potential teachers prepared both in a subject field and in bibliographical expertise. Even if persons from either faculty or library staff could be identified, with willingness and ability to prepare for the dual role, the time and cost of adequate preparation would be forbidding. The only solution is the preparation now of college library-faculty personnel for the next academic generation. Daniel Bergen 22 suggests schools devoted exclusively to the training of academic librarians. Ralph Perkins' study 23 shows the great need for bibliographical training for teachers.

The first approach mentioned above, more intense and constant collaboration between faculty and librarians, is presently being used
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in many institutions, most of them experimental. Several junior colleges are already far along the way to integration of the two groups. Among the librarians who are active in promoting this sort of rapport and joint action are Mayrelee Newman of the Dallas County Junior College District in Texas and Janice Fusaro of Anoko-Ramsey Junior College, Minneapolis. The latter is one of the departmental editors of The Library-College Journal; her column covers community college innovations. In the same journal, Louis Shores regularly describes other innovations and experimentation incorporating the library-college idea.

In a setting far removed from the ideal “small college” of the movement’s theorists, Robert Jordan is implementing many of the ideas which are basic to the concept. This is at Federal City College, in Washington, a new college with large enrollment, renovated and unfinished quarters, and conflicting ideas of education among both faculty and students. Jordan and his dynamic staff are utilizing multimedia and technological advances, with an appropriate instructional program, and with workshops for students and faculty, introducing both groups to media technology. Under William Hinchliff, himself an early follower of the library-college movement, Federal City College has merged the library and the bookstore, known as the Media-store, with the result that the student can borrow or buy, trade or re-sell his books. Technical processes are simplified greatly, and there is much dependence on paperbacks, generously circulated in numbers and for long periods of time. The atmosphere of the Media Services quarters is one of open invitation. Staff work closely with faculty in planning and implementing educational programs.

In spite of the example of Federal City College, there is still general agreement that the application of the library-college concept requires a group small enough to insure the individual interchange which is almost impossible on a huge campus. This means either small colleges, or cluster colleges, such as those of the Santa Cruz campus of the University of California, or the college-within-a-colleges situation, such as that at Oakland University. Many other institutions could be cited; almost any experiment in higher education considers the library as an important factor in the proposed changes.

Much has been written on experimentation in higher education; only a few references are given here, chosen because they emphasize the role of the library. Several experimental colleges are described in Higher Education: Some Newer Developments, edited by Samuel
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Baskin, and in a work previously cited, Stickler's Experimental Colleges. From the viewpoint of the library's function, a recent research review is No. 29 of the Office of Education series, New Dimensions in Higher Education. The study is entitled Impact of the Academic Library on the Educational Program. Jordan, Goudeau and Shores discuss the effect of library-related ideas on college planning, and the influence of new developments on the nature of library science.

At Hampshire College, outgrowth of cooperative planning among Smith, Mount Holyoke, Amherst and the University of Massachusetts, individual study and personalized tutorial programs have necessitated an intensive investigation of various teaching-library relationships. Elements of the library-college idea are evident in the final organization. In another liberal arts college, Macalester, James Holly has introduced library-college applications; in engineering education, Thomas Minder integrated subject coverage and bibliographical search methods.

There are also individual projects within the framework of traditional colleges. One of the most successful and widely imitated has been centered in a large university. That is the audio-tutorial program in botany, headed by Samuel Postlethwait at Purdue. Postlethwait's account makes very evident the great amount of preparatory work and supervisory time which such a program requires. The library-college method, like most experimental methods, does not cut down on either faculty time or other teaching expense. Its adherents claim for it that it makes better use of the time and gets better results from the investment.

These various approaches illustrate the spectrum of applicability for the library-college mode of learning. Emphasis can be on the student's bibliographical competency, on his skill in using the products of technology, or on his increasing independence of classroom and teacher. Emphasis, however, is always student-centered.

If the idea is so sound in theory, and so adaptable in practice, why are there not more institutions which can properly be labelled "library-college?" The obstacles are ideological (resistance of faculty to what they may consider an attempt to supplant them), physical (lack of suitable buildings, and expense of erecting such facilities) and operational (shortage of suitably trained library-faculty). As against this scarcity of total adoptions, there is the increasing emphasis in many colleges on independent study and on other elements basic to the library-college concept. An English librarian, Norman Beswick, ob-
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serves, “perhaps the main value of the Library-College movement is that it provides a speculative model for use in our thinking. It will help us to re-examine two questions which are central to any educational institution: (i) what contributions to the learning process can be made by libraries, independent study, the new media and the computer? and (ii) what are tutorial staff [i.e., faculty] for? . . . It is not the library that ‘supports’ the classroom . . . but the classroom that leads (or should lead) inevitably and essentially to the library.”

Whether one uses the library-college as a model for thinking or as a model for action, the movement cannot be ignored in any evaluation of the present scene in higher education.

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