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The second national conference of the Association of College and Research Libraries, which was held in Minneapolis, Minnesota, October 1–4, 1981, had as its theme “Options for the 80s”—an attempt to look at the choices confronting higher education and academic librarianship in the next decade. Five speakers were invited to address this topic from the perspectives of the federal government, the research university, the liberal arts college, an academic discipline, and the academic library. The texts of these presentations follow.

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ROBERT M. ROSENZWEIG

Research Universities in the Next Decade

The major research university, a uniquely American institution, has emerged from a period of unrivaled expansion and success to face an array of critical problems. These problems include altered attitudes regarding the value of social institutions, rapid inflation, government regulation, and mixed views of scientific and technological advancement. This is coupled with the uncertainties surrounding the relationship between the federal government and higher education. In order to face this future effectively, research universities must seek to retain a necessary level of federal support, to secure new partners and alliances to augment this support, and to ensure that primary agenda-setting responsibility for their teaching and research programs continues to reside with their faculties, administrators, and trustees.

For the last eighteen months or so, I have had the opportunity to look at some matters affecting the condition of the nation's research universities. (Parenthetically, and before I am asked, let me simply stipulate that, for our purposes, a research university is any university with a research library. I think that throws the ball into your court.) This effort has gone forward under the auspices of the Association of American Universities and with the guidance of an advisory group consisting of university presidents, foundation executives, and businesspersons. Our purpose was to look at the political, economic, and social circumstances that affect those institutions, to identify their major needs, and to suggest an agenda for action to meet those needs. The agenda was directed at the institutions themselves, at government, and at the private sector. We gave particular attention to the topics of research libraries, research instrumentation, graduate education and research training, international studies, and business–higher education collaboration.

We did not set out in this work to predict the future or even to speculate about the way this important group of institutions is likely to develop in the next decade. Our aim was somewhat more modest. It was to get a better fix on where we now stand and to understand better the dynamics of some important relationships involving the universities and their patrons. With that knowledge we may be able to shape our own future more effectively.

It is not that I am opposed to efforts to predict the future. Those efforts are frequently entertaining, and occasionally one or another prediction turns out to be right. On the whole, though, we are of necessity so rooted in where we have been and where we are that it is very hard to know where we and events will take us. I do have some very broad impressions about the future that I will share with you a bit later, but just in case you think that I am urging an unduly humble view of the matter, we can review the recent record. In 1960, the main concerns of leaders in higher education centered on the problems of growth. The 1950s had been marked by a convulsive burst of expansion produced by the need to accommodate the veterans of World War II and the war in Korea. Ahead lay the children of the postwar baby boom and the desire of larger fractions of each year’s high school graduating class to attend college.

The issues of the day concerned the best ways to stimulate growth in order to accom-
moderate the new demand. The National Defense Education Act of 1958 provided fellowships for doctoral programs willing to expand their size in order to educate larger numbers of college teachers. NSF and NIH fellowship programs grew in parallel. Agitation had begun for federal programs to aid new academic facilities in accommodating the growing student numbers. The great systems of public higher education were ready for their periods of greatest growth, and federal support for scientific research was increasing each year.

In America, growth has been the foundation of optimism, and in that sense as well as others, 1960 was an optimistic year. Indeed it was the last decade-opening year in the experience of those now active in higher education to be marked by genuine optimism about the future. Let it be said, then, that only the gift of prevision would have enabled one to see all that lay ahead in the 1960s. Not only did the 1960s witness the largely successful culmination of an unprecedented growth in the system, but it also brought some of the unhappier fruits of that expansion and more.

No one can be faulted for failing to foresee the war in Vietnam, the draft, the civil rights movement followed by violent racial unrest, and the assassination of three of the nation's leading public figures. Their effects, therefore, came with the shock born of surprise. Less understandable, perhaps, was the failure to see early enough that growth, no matter how well managed, produces dislocations. Eventually it became evident that many undergraduate students were less than enthusiastic about the growth of graduate programs and the ready availability of research funds, as both enabled their teachers to withdraw from undergraduate teaching, and that the very increases in enrollment that marked the decade served to sharpen the pain and anger of minorities who were still largely on the outside looking in.

The year 1970, therefore, was anything but optimistic. Indeed, it was hard to find on the agenda issues of education policy as that term is ordinarily understood. Instead, America's educational leadership was preoccupied with issues of disruption, violence, retribution from political leaders who had no answers but keen noses for a useful political issue and other matters that were far removed from the experience, training, or inclinations of most.

What is most striking about the 1970s is just how transitory those preoccupations turned out to be. By 1973 the war was over, the draft was no longer a threat, the practice of politics had reverted to its more normal rhythms, and the campuses were deeply troubled about issues whose early warnings had been overridden by the convulsions of the preceding years. The government, both in anger at the anti-war movement and in response to competition from new priorities, turned down the tap on research spending. Graduate fellowship programs were sharply reduced, and funds for academic facilities virtually disappeared. In addition, a whole new set of issues arose, generated by a wave of regulatory activity. Some of the activity grew directly out of demands for greater accountability in the use of federal money, but much of it came to universities simply because they were large organizations doing business in a political climate that encouraged the discovery of new abuses needing to be controlled.

One can find both good news and bad in this brief sketch. The good news is that the record of dealing with the issues that were known to be issues has been excellent. The bad news, alas, is that it seems almost impossible to avoid unpleasant surprises. From the former we may take hope; from the latter we should learn humility.

With that as background, I am able to say that my own view of the future of higher education, and especially that part of it that is encompassed by the research universities, lies somewhere north of Cassandra and south of Polyanna. I believe that things are not as bad as we sometimes think they are, and that with the application of intelligence and energy it should be possible to keep them from getting much worse. I shall now back up and approach that conclusion in a more orderly way. Along the way I shall make some observations about the immediate future, as represented by the policies of the Reagan administration, and also a few suggestions about what is required as a foundation for policies.

America can boast of institutions with distinguished teaching as their main activity and others that devote their full efforts to high-quality research, but what sets the American scene apart from all others is the
existence of a group of institutions whose commitment is both to teaching and to research and to the belief that the interaction of the two brings added value to both.

Is the belief more than that? Is it more than simply a conviction born of convenience and of the ease of justifying existing structures? Evidence for the value of particular forms of social organization is notoriously difficult to find. In the real world genuine comparisons—the kind that support confident generalizations—rarely exist. Still, most informed observers throughout the world would agree that the American research university must be judged a success by virtually any imaginable standard of measurement. It has been the home to research and scholarship that, across all fields and in the aggregate, is unexcelled anywhere in the world; it has trained research scientists and scholars of the highest quality, as well as doctors, lawyers, and managers of great sophistication, and it has, notwithstanding a commitment to basic research, retained a connection to the worlds of commerce and affairs that enriches commercial and public life.

The existence of these universities represents a remarkable achievement. A form of social organization barely known elsewhere in the world has so clearly demonstrated its value in America that the wisdom of sustaining it is almost beyond serious debate. While it may now seem so, it is important to recall that this result was not inevitable. Much of the scientific work that proved the practical value of science during the Second World War was done by university scientists, but not in truly academic settings. There was no necessary reason to conclude from that experience that research and teaching would both be better if they were done together. The tradition of the research university was not widespread or well entrenched in this country. On the contrary, the main existing examples of how to conduct basic research were those of Great Britain, the Continent, and the war, and to emulate them could well have led to a different conclusion. That those examples did not become America’s model is a significant achievement of both education and politics.

If it was a development born of wartime experience, it was confirmed by equally powerful impulses in the years that followed. The competition of the cold war maintained the high public interest in science and technology as the foundation of military preparedness, and it also provided the momentum for initiatives as diverse as the space program and the stimulation of programs of research and teaching in foreign languages and cultures. The effect was to confirm the value of the university to important national purposes.

In addition to war and cold war, other forces moved in the same direction. The arrival of at least relative peace and unquestioned prosperity helped to move the national concern for health to a high place on the list of social and political priorities. Early on, the cure of disease was seen to depend on knowledge of basic biological processes, and as a consequence of rapidly growing popularity, the National Institutes of Health became the instrument for the expansion of health-related research and training in university laboratories. Similarly, the extension of social insurance programs to health care through Medicare and Medicaid greatly stimulated the need for physicians and other health care personnel and placed the government in the position of major purchaser of the health care services that many university teaching hospitals used as the basis of their training. Thus, from basic research on the structure of life, to the application of research in therapy, to the training of researchers and practitioners, to the delivery of medical service, the university became the instrument of choice by means of an unbreakable mutually dependent relationship with the government.

Recognizing the development and confirmation of the research university as an achievement—a successful product of social choice, educational initiative, and political skill—may help lend perspective to a number of collateral questions. Such issues as the pressures for wider geographical distribution of research funds, the role of peer review in decisions about funding, and the baneful effects of effort reporting requirements, for example, are important, and if they are dealt with unintelligently they can have a cumulatively harmful effect on the quality of research and teaching. But they arise in the context of a broad intellectual and political consensus over the value of the institutions they affect.

But the substance of public policy flows
from a climate of events and attitudes that establishes what is necessary and determines what is possible. Therefore, some important aspects of the American climate need to be accounted for if sensible policies for the 1980s are to emerge. The main facts of contemporary American life from the perspective of research universities are the corrosive effects of a widespread indifference—even hostility—to the well-being of important social institutions; the equally corrosive effects of rapid and sustained inflation; the active role of government in regulating economic and social activity; and the growing importance of and ambivalence to science and technology. Even that list is by no means complete, but it suggests a world of sufficient complexity to challenge the most intrepid among us.

These have not been easy times for the central institutions of American society. The worst of the late 1960s and early 1970s is perhaps behind us, but the legacy of Vietnam and Watergate remains. Instead of the virulent animosity of that period, one senses today at best a widespread skepticism about the capacity of our social institutions, governmental and private alike, to do what is required of them.

There may be some comfort to be taken from the consistent showing in the polls that the public at large retains an ability to discriminate among the objects of its disaffection. In general, institutions of government, business, and the organized professions—what might generally be called the institutions of power and privilege—rank low in public esteem. In contrast, public regard for science, universities, and religious institutions has rebounded from its lowest point. Unhappily, however, the leaders of opinion seem to be less discriminating. The media delight in exposing the warts of government, education, the judiciary, and anyone else in their line of vision. Government too often acts as if its preoccupations of the moment override all other considerations, including the ability of other institutions to perform their roles. Single-interest groups, notoriously unconcerned about anything outside the narrow scope of their particular visions, attack government, business, universities, and the media with ready and equal abandon.

None of this, perhaps, should be surpris-
in university laboratories. In the social sciences, work done in a few major universities showed the power of scientific public opinion sampling as a tool for explaining political behavior, a development with profound consequences for the way in which politics is now conducted in this country. In the professions, much of the change in medical practice of the last three decades—improved therapies, new technologies, increasing specialization—can be traced to the work of university-based biomedical sciences. And law school faculty members have been instrumental in generating the justification for new law in such key areas as civil rights, civil liberties, capital punishment, consumer protection, environmental protection, political reform, and a host of others.

All of these are signs of vitality, evidence that universities are in fact the setting for work of profound importance. But it also needs to be said that intellectual labor that has real consequences for the way society does its business is certain to generate controversy. Indeed, the more rapid the rate of change, the more intense will be the anxiety it evokes about the institutions that appear to be responsible for it.

A second important element of the social climate is not new, but the full recognition of its dimensions and effects is new to universities. It is the extent to which the conduct of institutions has become subject to the regulatory power of government. The United States is by no means alone in this regard. Indeed, if anything, most other democratic nations of the West started earlier and have gone further in their efforts to use government to guide economic activity, cushion the harsher effects of economic competition, redistribute income, and promote the public's health and safety.

Initially, the power of government was used in this country to stimulate competition by preventing monopoly and to protect against the abuse of power by sectors of industry—transportation and utilities, for example—whose scale was inevitably large and whose power was therefore great. Add to those a relatively small number of governmental activities aimed at protecting public health, and it is not hard to see why universities were relatively untouched by regulatory activities.

By the 1960s the end of innocence was in sight, and by the 1970s it was truly gone. Three developments coincided to alter circumstances dramatically and irrevocably. The first was simply that universities became too large, important, and visible to ignore any longer. The maintenance worker in the university could not be denied the protection of the government for his right to join a union on the grounds that universities were not really engaged in commerce or were somehow too small or idiosyncratic to be reached by the same law that protected the rights of maintenance workers across the street.

Second, the very nature of regulation changed in ways that made universities central rather than peripheral to the regulatory purpose. When, for example, government assumed the duty to redress the effects of two centuries of racial discrimination, it was inconceivable that schools at any level could be exempt. Similarly, the dramatic shift of public focus from the regulation of certain kinds of economic activity to the use of regulatory powers in protecting against risks and hazards of many different kinds, brought universities into the regulatory arena more fully than before. Environmental protection, consumer protection, protection of the subjects of research, protection against toxic wastes—all of those at a minimum include and in some cases focus on universities as sources of hazard from which the public arguably needs protection.

The perception, therefore, that government reaches more broadly and deeply into university activities than ever before is quite accurate. However, the belief of some that universities are uniquely put upon in this respect would be largely incorrect were it not for the third and most recent of the regulatory impulses, the one that has come under the heading of “accountability.”

The principle of accountability—in simplest terms, the requirement that recipients of public money be able to demonstrate that they used the money for the purposes for which it was given—is hardly controversial. Controversy, and it is bitter indeed, arises over the insistence by government on forms of documentation that are widely believed in academic circles to be unreasonable, intrusive, burdensome, and useless, to use only terms that imply no malevolent motives.
At present, the controversy over accountability centers on the requirements for the documentation of faculty effort to support government payments for the direct and indirect costs of research. Many faculty bitterly resent having to account for the division of their time into such categories as research, teaching, and administration, activities that often take place simultaneously and are therefore indistinguishable from one another. The accumulation of data that anger and demean the giver and are of no practical use to the receiver, is at best a dubious activity. It is also a wholly unnecessary controversy. The careful and balanced report of the National Commission on Research proposes several ways to assure accountability by institutions without the burdensome and contentious requirements that now exist.

It is tempting, because it is easy, to think of regulation as the product of careless legislators or overreaching bureaucrats; or alternatively as a concoction of liberals on social issues and conservatives on financial issues. There is perhaps some truth to each of those, but they are all wide of the mark. The tide of deregulation in recent years has helped to roll back certain restraints on airlines and truckers, and others may follow. It has also helped to call attention to excesses in other areas. It is unlikely, however, that today's reaction will reverse (1) the conditions of modern life that lead citizens to call on government for protection from the hazards that this life produces, or (2) the economic conditions that lead to tight controls on the use of public funds or to the drive to remedy the legacy of racial, ethnic, and sexual discrimination.

The persistence of conditions that lead government to control the conduct of other institutions whose activities affect the public may seem to present a discouraging prospect. But it also suggests a strategy—a strategy that assumes that issues of government regulation will be with us for the foreseeable future, that they are in fact a continuing part of the social climate, and that no single conflict can be treated as if it will be the last one, if only it can be won. The responsibility of political leaders is to define areas in which protection of the public's interest can be achieved only by regulatory activity; the responsibility of those in universities is to define the areas in which the intrusion of government so distorts institutional purposes and processes that the regulatory end being sought must defer to the damage that regulation will cause.

The Reagan administration came to office with an ideological commitment to reverse the regulatory impulse. One of its early actions was the establishment of a task force chaired by the vice-president to move in that direction. That group will not produce miracles. It does, however, provide a new arena for the kind of thoughtful and persistent efforts that will be needed to attain agreement on the proper limits of regulatory activity.

Persistence, intelligence, and restraint are such frequently advised strategies that they may seem to be no strategies at all. In protracted struggles with high stakes, however, they constitute the only workable strategies available.

Finally, in this assessment of the policymaking climate, it is necessary to look at the role of government; not government as regulator, but government as the main stimulus of the postwar development of the research university and as the continuing largest single patron of research and research training.

In approaching this very large and important topic it is useful to begin by saying that it is now a part of the American policy consensus that the federal government bears an important share of the responsibility for sustaining the vitality of the research university. To put the matter in this way purposely begs the very important questions of the size of the share and the best means for supplying it. However, those are the stuff of policy, and policy rests on the fundamental points of consensus: that there exists a federal responsibility and that it is shared with others.

Further confirmation of that consensus can be found in the first Reagan budget. From the point of view of higher education, that budget presented many problems. Even from the narrower perspective of the research universities, the budget displayed an alarming animus toward the social sciences and a disappointing narrowness of view with respect to such matters as graduate training and research instrumentation. But the fact remains that in the midst of the largest proposed budget reductions in our history, university-based research support in the aggregate was uncut in real dollars. It was extraordinary testimony to the durability of the mutual de-
pendency that has arisen over the years.

It is merely melodrama to argue, as some do, that the major American universities have become in some sense "federal universities," wards and helpless dependents of the government, but it is surely true that the enormous growth of government programs has produced large and lasting changes in the shape and style of institutional life.

The sheer magnitude of the enterprise has had its own effects on institutions, but the dominance of a single patron was itself a fact of significance. That single patron was so openhanded, so generally enlightened, and so uncritical for so long a time that misconceptions about its nature and purposes grew, and unrealistic expectations about its intentions became embedded in institutional planning. If the relationship between the federal government and research universities has soured in recent years, at least part of the explanation can be found in those misconceptions and false expectations. To put the matter bluntly, too many scientists and university officers came to believe that the government-university relationship was somehow exempt from ordinary rules of democratic politics. To say that is not to be especially critical. It is simply another way of observing that few of us are so ruthlessly analytical as to question the reasons for the good fortune that comes our way. It is much more common to conclude simply that it is ours because we deserve it.

The attitude was virtually universal among scientists and nearly so among university administrators. The record shows few warnings that business with government—especially a democratic government—is inevitably political; that the relationship between government and the interests that make up society is based, to a significant degree, on calculations of mutual advantage; and that government is an unstable ally precisely because those calculations are subject to rapid change as the public perception of the priority due to particular social problems shifts. A fair reading of the record will show that research and higher education had an unusually long run of governmental favor and that, in fact, they have not really fallen from favor so much as they have suffered from increased competition for it.

To be precise, funding for academic research and development grew (in constant 1972 dollars) at an annual rate of 12 percent from 1953 to 1960; 14 percent from 1960 to 1968; zero percent from 1968 to 1974; and 4 percent from 1974 to 1978. Fifteen years of such high rates of growth is an extraordinary record of abundance, a record that made the drop to zero both shocking and unconscionable. The small real increases of recent years rank academic research and development as among the more favored of the discretionary objects of governmental patronage.

The dominant view in university and scientific circles tends to be rather different. That view is best expressed in the image of partnership, perhaps the single metaphor most commonly used to describe the relationship of government to research and research training.

It is an attractive image, for genuine partners to an enterprise have common interests, work closely and cooperatively together, and are mutually supportive. But it is also a misleading image, for true partners—in the business sense, for example—have a shared commitment to a common goal, a shared responsibility based on mutual interest for the well-being of the enterprise, and each partner will suffer in precisely defined measure in the case of default of obligation. None of those is true, absent literary license, for the government-university relationship. In the nature of things, government cannot be a true partner. Its commitments are always contingent, and frequently no more than annual, and they are subject to short- or long-run changes depending on circumstances that have nothing to do with the terms or conditions of the "partnership." In the coldest and clearest view of the matter, research universities have no more claim to "partnership" with the government than do farmers, merchant shippers, highway builders, or any other group that has established a claim on government patronage. The government can be, and often is, at one and the same time a patron, adversary, buyer, and regulator. What it cannot be, in any sense that can be relied upon, is a partner.

Much of the bitterness over the deterioration of relations between government and research universities that marks the present climate can be traced to a conviction among the latter of betrayal, deriving from the belief...
that this relationship is somehow different from all others. In some of its details that was undoubtedly true, but in its fundamentals it could not be. Sound future policies and the prospects for good relations in the future depend on a clear-eyed formulation of what agencies in the society are responsible and in what measure, for ensuring that these invaluable and irreplaceable institutions are able to perform at top effectiveness over a long period of time.

The main elements of such a formulation are clear enough. It must surely include frank recognition that the maintenance of a vital research enterprise in the country is unthinkable without the active involvement of the government. It must also include recognition of the inherent instability of that involvement, both as to its total at any moment and as to the components of the total, and therefore it must seek ways to limit dependency on government funding. It must include a reaching out for new patrons and new alliances. The United States still retains a vital private sector that derives important benefits from the work of research universities. New ways need to be devised to make business, in particular, a more active participant in the activities of research and training. Finally, such a formulation must be explicit that the primary responsibility for maintaining the vitality of the research university rests with the faculties, administrators, and trustees who hold them in stewardship during their tenures in office. This is more than mere rhetoric. Dependency can sap responsibility, and in this case the ordinary dangers of excessive dependency on a major patron are exacerbated by the extent to which this patron—the public through its government—has come habitually to depend on the research university to solve its problems—defense, space exploration, disease, health care, and now industrial productivity and innovation. The urgency that such needs bespeak, and the pressures they generate for fast results, can be so overpowering as to distort institutional purposes, and compromise high standards of quality. To avoid those results will require strong institutional agendas combined with strong instruments for defining collective institutional interests. Those responsibilities cannot be given to others except at great cost.

None of this necessarily foreshadows disaster. The American research university has become a remarkably productive institution, host to a large number of creative people whose work pushes back the boundaries of ignorance and helps distribute the benefits of knowledge. The task of policy today and tomorrow is to produce the conditions that will sustain them in their work.
Views of a Luddite

The future of academic libraries seems to be both a promise and a threat. We are experiencing great changes in the ways in which we store and retrieve information. Consequently, the nature of libraries and their use is also changing dramatically. Will the promised benefits—now more urgently sought than ever, in the face of mounting fiscal problems—also undermine traditional scholarly values? Libraries are, above all, social systems: a teaching-learning milieu in which retrieval of information is only a part. If the new technology destroys this environment, it will also destroy what it is trying to maintain and improve.

I am pleased to be invited to speak about what the next decade might mean to my work as a teacher and researcher because so much of my work and my enjoyment depends on libraries and librarians. What happens to librarians will also happen to me. In fact, my temperament and training are such that, where others would turn to a crystal ball, a computer projection, or their own imaginations to approach today’s theme, I went to the library. Or, more technically, I began a documents search for materials on what libraries might be like ten years from now. I clipped articles from Change and the Chronicle of Higher Education (my own copies!), I turned to my reference librarian—my friend and colleague Evan Farber—and I read all the material he put in my hands. I also tried to experience what the future will be like by pursuing three computer searches of databases—one in modern poetry, one in the history of British dissenting academies, and one in a new therapy in psychology.

As you know from your own work, the predictions about these next ten years contain good news and bad news. The bad news is that no library will be adequate, in itself, to meet all the demands that will be placed on it; and that the cost of acquiring new materials—which will continue to pour forth in geometrically increasing quantities—will continue to rise so steeply that every academic and university library will have to become more selective in its own holdings. Some colleges are planning to stabilize their collections at some specific number of volumes (rather than increasing holdings indefinitely), then maintain that number by careful culling, on the one hand, and vigorous use of cooperative and network arrangements, on the other, to supply what students and faculty need. The good news, of course, is that such cooperative arrangements, networks, and computer-accessible databases are already largely in place and at present make far more material available to the researcher than ever before. Moreover, it is good news that computer indexing of databases will be followed rapidly by immediate computerized access to the documents themselves. A recent New York Times article on the computerization of the Library of Congress catalog notes that the electronic catalog now has 81 million entries, with room for scores of millions more, and that in the future electronic processes will allow the retrieval of actual book contents on the cathode screen. In the future, we also know, it will become ever more common that such retrieval of materials will allow for hard-copy reproduction as well.

We are in the middle of a sweeping revolution in the ways we generate, collect, store, retrieve, and use the products of the human mind—the products we rather casually call information or data. Work that would previously have taken years of drudgery to accomplish will be done in a fraction of the time and of the drudgery. Questions that would not
have occurred to us to ask, because their answers would have required methods of comparison and analysis too complex to keep straight in our minds, might soon be commonplace to ask and answer. The very forms in which we index and catalog materials will permit multiple studies in word frequency, stylistic profiles, concordances, and the like—to speak of only one kind of literary study. Problems involving many variables can be studied in ways too complicated to have been attempted in the past. The very ways we collect and store information will produce more information; we will be able to wring out the last drop of significance from every piece of data—which is the scholar’s dream.

As this brief survey of what is already happening reminds us, the ways we use libraries in the future are likely to be vastly different from what they have been in the past. Some of the predictions I have read speak exultantly of the end of libraries as we have known them, the end of dependence on print, and the end of the book. In place of the vast building with its many holdings and many services, the most radical predictions envisage the “disembodiment of the library,” and in its place a system of information retrieval operated by a keyboard at the scholar’s desk. They see the scholar alone in his or her office, typing out instructions that will call up, in moments, virtually anything that has ever been committed to print or entered into a memory bank. According to this vision, publishing will also change radically; articles and books will be entered directly into a memory bank or database, to be called up if and as anyone is interested. Books will virtually disappear—not only as physical objects, print on paper, but as extended argument or discussion. “Instead, bibliographic technicians will have already broken down the book into fragments suitable for storage in giant computers and for transmission through a variety of audio-visual systems.”

No one will want to labor to make a book a coherent whole if everything of that sort is destined to be dismantled into fragments suitable for storage and retrieval.

Perhaps you’ve noticed that I stopped talking about good news and bad news. That is because I am no longer sure whether what I am describing is one or the other. I see the marvelous possibilities in having so much material so readily available, but I also recognize that the technological developments that are confidently predicted to lead to the end of print, the end of the book, and the end of the library, strike me with horror. I cannot imagine doing my work as a teacher and a researcher with pleasure in such a world.

By training and interest I am a teacher and student in the humanities. I spend my professional time, and much of my recreational time, reading literature and making connections between literary works and between literature and other disciplines—especially psychology, philosophy, theology, and history. Like the majority of college and university teachers in America, I see myself primarily as a teacher. I write and publish modest amounts, and I keep a number of research projects working all the time, but virtually all of my writing and research relates directly to my teaching, which in turn grows largely out of my intellectual interests. I am drawn not only to aesthetic questions, but to social, political, and philosophical ones, and these help shape what I teach and how I do research to prepare for my teaching.

My job, then, is to read literature carefully, to understand what writers have written and the contexts out of which their writings have come. I do this job for my own satisfaction—for the pleasure I receive from the beauty of literature, from the wisdom and the insight into human motives and actions it offers, and from the truth it contains. I also do this job because it brings me into meaningful relations with other people—my undergraduate students and my teaching colleagues—with whom I share the pleasure, beauty, wisdom, insight, and truth of literature.

As a teacher and a student of literature, my methods are analytical, but I am ultimately concerned with wholes rather than with parts. My effectiveness must be judged according to how well I bring the whole text, the complete work, before my students, and how well I demonstrate my respect for the whole text in my attention to the smallest detail. I must, in turn, assess the value of a library or an information-retrieval system by how well they help me come to a close, informed examination of a whole text.

As a teacher and a student of the humani-
ties, I must come clean on something else about myself that profoundly influences how I look at what will be happening to libraries in the next ten years. I am a Luddite. The first Luddites—named for an English factory worker who was said to be mentally retarded—broke machinery that was threatening to put them out of work. To say I am a Luddite is to say I approach technological developments, which others call progress, with fear and hostility, and my stock reaction to the introduction of a new piece of machinery into my life is to hope it will break down ignominiously. I love to see machines fail, and I believe they reciprocate the feeling. My experiences with computerized technology have frequently been catastrophic. The only time I ever tried to withdraw money from a bank machine was on a Saturday afternoon, just before I was to leave on a business trip. The machine housed a persona named something like Auntie Em—warm, chatty, eager to help. In the middle of our transaction, Auntie Em ate my card and then pretended never to have heard of me. When in desperation I left to make a futile effort to phone someone from the bank, the public telephone swallowed my only dime. Like most Luddites, I am selective as well as ambivalent about the technology I wish to eliminate. I drive a car, fly in airplanes, use the telephone, radio, and television, but deep down in my heart I have only accepted the radio fully. I prefer to write with a fountain pen—not even a cartridge pen but a real fountain pen. Do not expect me to greet the future with unalloyed pleasure.

Undoubtedly my feelings are made up of a lot of sentimentality and wrongheadedness, but let me indulge them for a few minutes because there are a great many people like me—perhaps especially among people in the humanities—and what we can foresee as the shape of our work in the future rests only in part on what technology can offer us. The larger part rests on how we feel about what technology can do for us. The first Luddites were weak, fighting a desperate losing battle; those I am talking about are strong and influential; they can make systems fail simply because they will not cooperate. So, for a few minutes, I will indulge myself.

I have strong emotions about libraries. The feel and look of books matter to me. I love the touch and smell of a clean new book and an old leather-bound secondhand one. Every library I have ever worked in evokes memories of the first one I used, a branch public library in a bankrupt grocery store on a side street in Philadelphia. When I was a child, I not only played cowboys and war and school; I also played library. I put cards in my books, and I used to like to hold my pencil between my first and second fingers, the way librarians did when they wrote in one's card number and then reversed the pencil to stamp in the date. The library not only had the books one wanted, it was a place to be on rainy Saturdays. It had heavy oak tables to sit at and read; it was intimate and personal and run like a cottage industry. It was a mom and pop library. In the years since then I have learned to use bigger and better libraries—Widener, Houghton, the New York Public, the British Museum, and many others—but they have all felt familiar to me because they were still essentially cottage industries.

But of course libraries have also changed enormously since the days when the librarian wrote your card number on the book card and then stamped the date. I recall when I first became aware of the rapidity of the changes. I was finishing college at the University of Pennsylvania in 1957, and the university was just beginning to use a computer for course registration. (I recall with pleasure that the first experiment was disastrous.) Several of us found ourselves speculating about how this new thing could be used in libraries. We spent a hilarious couple of hours capping each other's wildest fantasies about what might be possible with the new technology. I recognize now that every outrageous science fiction invention we imagined has since been surpassed by what happens every day now with computer searches, telephone transmission of printed data, and new forms of bibliographies, concordances, and indexes. I mention this not only to put you on your guard about me as a forecaster but also to put in stark relief the differences between the library of my memories and the library I seem to be destined to work in in the future.

If I were a Luddite only out of nostalgia and mechanical incompetence, I would not be worth listening to; but even when we have been wrongheaded, we Luddites have raised important value questions. The first Luddites
had three anxieties that you and I, and our colleagues, must also face now and in the decade ahead. They can be put in the form of three questions:

1. Will the new technology put us out of meaningful and valuable jobs?
2. Will the fine old crafts we practice be cheapened or lost as a result of the new technology?
3. Will the new machinery alienate us from our work and from our fellow workers?

These, I suggest, are crucial questions for us to ask as we speculate on what will happen in the study of the humanities in the next ten years, and I will try to reflect on each in some detail.

**Will the new technology put us out of meaningful and valuable jobs?**

I have already indicated that I am a teacher first of all, and a researcher in large part as a result of my teaching. My work, then, brings me into close and rich association with people who study as well as produce literary works. Dame Helen Gardner describes the study of literature this way:

> In no other subject is the pupil brought more immediately and continuously into contact with original sources, the actual material of his study. In no other subject is he so able and so bound to make his own selection of the material he wishes to discuss, or able so confidently to check the statements of authorities against the documents on which they are based. No other study involves him so necessarily in ancillary disciplines. Most important of all, no other study touches his own life at so many points and more illuminates the world of his own daily experience. ²

Both studying and teaching literature are, preeminently, library work. To teach a student how to study literature is to introduce him or her to systematic library research methods—going to original sources, selecting judiciously, checking authorities against the documents, reaching out into other fields of study to get more light on the meaning of our documents. Such study is an end in itself and the means to other ends. It teaches us how to read accurately, and in the process it lets us share the pleasure, beauty, insight, and wisdom that literature offers to those who approach it with openness and respect. Will technology put me out of that job, or are there ways it can enhance and extend the effectiveness of that work—whether or not I am the one who does it?

My ultimate end may be to find truth and beauty in literature, but my means require making discriminations, studying fine details. Analysis must precede synthesis. In these kinds of tasks, which Professor Donald Bond has called “scholarship preparatory to scholarship,” new technology is invaluable. Discovering and classifying documents, making descriptive bibliographies, editing texts, establishing sources and analogues are essential but painfully time-consuming tasks. Now indexes and bibliographies can be searched in instants instead of weeks. Collating editions, textual studies, concordances, word-frequency counts and stylistic profiles, formerly among the slowest, most tedious of work, can now be done with the assistance of the computer in a fraction of the former time and quite possibly with more fertile results, since the computer-generated tracings and cross-references can help us see far more elaborate or deeply embedded literary patterns than we have seen before. To cite a single example, the *Chronicle of Higher Education* (March 16, 1981, p.19) reports that Professor Colin Martindale of the University of Maine at Orono used a computer to trace trends in language usage among English poets over a five-hundred-year period. Choosing the work of five leading poets in twenty-year time periods, Professor Martindale fed fifty-eight line samples of each poet’s work—taken at random—into the computer. The resulting computer analyses showed a trend in each period toward “incongruous or unpredictable imagery as the younger poets within the tradition succeeded.” And as one tradition gave way to another, the new poets wrote once more “in more familiar images.” According to Professor Martindale, this study would have been difficult if not impossible without the computer.

Historical and critical approaches, literary biography, social history, intellectual history, and a variety of cross-disciplinary approaches to literary works may in time all be made less exhausting as more and more relevant material gets entered into memory banks. Surveys of lists, book-sale records, names on registers, wills and legal documents are some of the raw material of such studies. Meyer Abrams has described indifference to boredom as “the sine qua non of scholarship,”
but it is possible that in the future we will be able to get more useful conclusions out of our surveys of such material at the cost of less weariness of flesh and spirit.

The kinds of scholarly tasks I have been describing, though they are highly valuable, are only a small part of what students of the humanities find useful to do. Moreover, not everything we might want to examine minutely will be fed into a computer in time for us to avoid the tedium of a hand search; indeed, most of such tedious material will get into a computer only after someone has gone through it minutely to program it. And despite all the promise of easy access, there will have to be selections of what is going to be made retrievable in the great databases. Even if microforms and computer memory are easy to store, the expense of collecting material will continue to increase, as will the cost of retrieving it. The librarian who helped me with my computer searches discouraged one line of approach by saying gently that computer time was pretty expensive for playing around. He is right, of course, but we must remember that playing around, hunting and poking around in unexpected places, imagining unorthodox ways to get at information, are the very heart of research. Playing around is cheap when only the scholar's time is being considered, since in fact we never put an hourly cost to that, but when we have to pay for machine time instead of human time, we may find that some things we would like to do simply are not affordable.

Information is not merely exploding, it is undergoing fission. Even the great storage capacity we have will not allow us to keep up with the rapidly moving present while simultaneously reaching ever more deeply into the distant past. For economic reasons, if no other, we may be unable to do both. Some of the more radical projections of changes in research methods acknowledge, perhaps a bit condescendingly, that people who deal in earlier ages will still have to look at books, original documents, and other antique data sources. I hope they will not waste too much pity on us, for that is our greatest strength. As C.P. Snow pointed out, whereas something like 90 percent of the natural scientists who have ever lived are alive now, about 90 percent of the writers who have ever lived are dead. Snow thought that the latter fact was regrettable, but I consider it a great benefit. The humanist does not live only in the immediate present or in anticipation of a swiftly arriving future; he or she lives in distant times or several ages. The humanist is a time traveler into the past, studying and honoring and seeking to understand writers whose canon is forever closed, writers who, in representing their own time, offer something for ours.

What I say about literary study also applies to much philosophical, theological, and historical work. Plato and Thucydides, Isaiah, Socrates, and Jesus are not our contemporaries, but they speak to us precisely because they are so deeply rooted in the existential problems of their times and places. Will the new technology put us out of meaningful and valuable jobs? No. The new technologies have enormous promise for us, but not everything we consider worth doing will benefit from the laborsaving new machines. Some things will never get into the memory banks or will be too expensive to call up in meaningful form. This cautionary point leads directly into the Luddite's second question.

Will the fine old crafts we practice be cheapened or lost as a result of the new technology?

This is not a trivial question. We know already how easy it is to let machines dictate what we will do. Natural scientists find themselves deciding to study one topic rather than another because they have the necessary equipment to study the first topic. The equipment may not only determine what we will study, it will significantly determine what will be accepted as meaningful data. A number of scientists and philosophers have warned against the growing tendency to let what we study, how we study it, and what will be taken as acceptable conclusions to our study be determined by the equipment we have available. We know how hard it is to go outside the limits of the field, however they are established, yet just that breaking the limits of the field, conceiving of new ways to approach a topic, is what vitalizes research. It is not merely fear of the future, or sentimental longing for the past, that leads the humanist teacher and researcher—like our counterparts in the natural and social sciences—to worry about the craft of research, the skill of mind and hand and eye that turns up the fruitful lead, or the telling
bit of information. That craft can be lost if we do only what the machinery knows how to do rather than what we believe is worth doing.

What is the craft of research? For me it is being able to frame a significant question. This is the same craft which is at the heart of teaching. To frame a question means making a judgment about what is worth asking on a subject, what will produce the most important connections between ideas and bits of information, and what can lead us into more sophisticated or far-reaching questions. In speaking of framing rather than asking questions, I am trying to get at the process by which one examines a body of material, an event or a phenomenon at the same time as one examines the tools or the means by which a further examination of the subject can be best made. Framing the question is not simply requesting information; it is more like framing up a building, that preliminary roughing out of the space one is going to occupy, putting in the supports that allow one to do the substantial building in a more orderly fashion. I have to consider the materials I have to work with, the terrain I am working in, the tools I have at my disposal. If I am framing a question, I have to ask what I want to know and how I am likely to find out what I want to know in the most dependable fashion.

As a teacher I ask myself what I want my students to be able to do after they have reviewed research, what I want to come out of their writing of papers, what form I want those papers to take—and all of that leads me to thinking how my assignment should be constructed. When I am most fully engaged in reflecting on these questions, I am framing the questions that will organize a course within the content to be examined and what my students will be able to do with it.

For those of us in the humanities and social sciences certainly, and for natural scientists pretty substantially, the library is the most important and largest toolbox we have for framing our questions. Yet most of us who are teachers and researchers are poorly instructed in how to use the tools a library provides. We have been accustomed to having the hardest courses we took and the hardest we teach introduce the longest list of books on reserve. Our professors gave us fine bibliographies that directed our reading, and we may do the same for our students. Often it has been our experience that the most challenging graduate seminars we took specified both the paper topics and the works we were to consult. Our best graduate and undergraduate courses gave exclusive attention to mastering the content of major works in our field. We would go to a reference librarian as a last resort, and rarely if ever imagine that we could learn a generalizable method of research that might give us more interesting questions to pursue.

Several consequences flow from that kind of experience. We are only experienced in a very small part of the research tools a library offers. We only know a small part of a library's holdings—the eighteenth century or the American colonial period. Because of our limited, though deep, experience with a specialized set of holdings and the specialized tools for studying them, we may automatically turn away from stimulating new questions to work in the safe and familiar. We become passive in the presence of a new problem. We decide it is uninteresting or impossible to pursue. I consider myself quite at home in a library, but I occasionally catch myself evading a topic when a preliminary survey shows that it will not yield to my standard methods. Confessing ignorance is good for us, we know, but most of us will pass up the opportunity to admit our ignorance, when we can. In this connection it is worth noting that approaching a database through programs that are not, in the jargon, "user friendly," is far more daunting than asking a librarian for help in a strange new area.

We also like to postpone wrestling with the hard work of a study, making the material make sense, constructing the questions that will probe the data. Dreary though note taking is, it is not the hard work of thought—which is what we tend to avoid when the problem we are studying is resistant. Have you noticed how often people stand feeding coins into the Xerox machine, copying pages, instead of reading the pages to decide which are really worth having? Searching for more material is a familiar way for avoiding coming to grips with what one already has. Research technologies that show us how to amass great quantities of bibliographies, indexes, lists, bits of books, may—unless we do something about learning a more subtle
craft—cause our ability to frame questions to deteriorate even further.

So behind the question of whether the new technology will ruin our craft lie two concerns. First, there is already a danger that researchers ask only the questions they are certain they have the means of answering. We and our students can become passive and ask only what our machines can answer, rather than venturing beyond those limits. Second, for people who are already overspecialized and too narrow in their acquaintance with a library, the kinds of new technologies we have may help confirm the overspecialization, both because they let us mine familiar territory more extensively and because they are daunting when we enter new territories. One of my computer searches came to a temporary standstill as the printout repeated “invalid command” time after time, while my helper, trained to negotiate such obstacles, tried unsuccessfully for about ten exchanges to puzzle out what would satisfy this mechanical servant which had just become so finicky. Need I say that, had I been on my own, I would have typed something like “Forget the whole mess, let me out of here”? Of course, the machine would have replied “invalid command,” and my private nightmare would have continued.

To put the matter as I have is to remind us of the maxim that it is a poor craftsman who blames his tools when something goes wrong. The enormous possibilities of new technology show us that many of us, both as teachers and researchers, have asked the same kind of question again and again about familiar material and have done the same research project on several different texts. We have had little experience in framing new questions, new approaches. It is universally agreed that there is a great deal of garbage being published in all fields, but how do we deal with that fact when we ask for a research paper from students? Typically, such papers are required to begin with a thorough review of the literature, and the student is rewarded for going through the literature with the thoroughness and indiscriminacy of a powerful vacuum cleaner. Apparently we see no way of dealing with the garbage except to wade through all of it. The computer will not solve that problem for us.

Technologies that produce longer lists of titles, more piles of data, and which break books down into fragments for suitable storage cannot, in themselves, give us better research.

In speaking of the value of social science indexing for perceiving complex social systems, Kenneth Boulding has said, “It is fundamental to all knowledge that we gain knowledge by the orderly loss of information.” Most of us, at the start of our careers as teachers and researchers, assumed that one never dared to lose any information. It was always to be piled on more and more; knowledge was the sum total of one’s information. That is a false model of learning, but some of the most exultant celebrations of the libraries of the future speak of research and learning only under that model. Will the new technology make us lose or cheapen our crafts as researchers? It will not, in itself, either cheapen or improve our craft. That depends on us. Computer databases will be selective and discriminating only if we tell them to be so. They make a craft possible, but they are not a craft in themselves. This brings me to my third Luddite question.

Will the new technology alienate us from our work and from our fellow workers?

That question has to be considered on at least two levels. I have already begun to address one level in discussing the problems by considering study and research as first and foremost the amassing of data. To work in the humanities means to treat the text, the original source, with the utmost respect. Every piece of research we do ought to have as a major goal bringing us closer to the text, to the composer of the text, and to the society that created it. Our study ought always to be a celebration of human hopes and accomplishments. Counting word frequencies or beating out a poem’s meter on the desk top may be very far away from these noble goals, but they must somehow participate in these goals or they mean nothing. As teachers and researchers in the humanities, some of our most significant work involves not great quantities of material but a small body of material studied deeply. As I have suggested, that is both a strength and a problem.

On the second level we must consider research as a social activity, something that we do with other people. The stereotype of the scholar in the humanities places him or her in a lonely study, occasionally sending a little
signal to the outside world in the form of an article, learned note, or query. Scholarship is something we do alone, but we also pursue it in company. Not only do we want to be in touch with those who are working on similar issues, we want friends and colleagues around—working on very different things—who can share with us the delight in a new insight, a fruitful line of inquiry.

When I first started teaching at Earlham, there was only one coffee urn in our building. If one went for coffee, it was with the expectation of spending half an hour or longer. One was away from the desk and the telephone, and more important, one was with colleagues from the whole faculty. A lot of very good conversations generated a lot of good ideas while we were drinking coffee. As time went on, people started thinking it would be cheaper and more efficient if departments bought their own coffeepots, so we would not have to walk three flights to get coffee or expect to spend half an hour over it. And now, to be sure, every department has its coffeepot, and most of us walk across the hall, fill our cups, return to our offices, and keep on working. There are no half-hour breaks; I at least drink coffee all day long now, instead of three or four cups; and I see less of my immediate colleagues and virtually nothing of people in other departments unless I seek them out. The gathering place disappeared when we found a little bit of a timesaver to ease our work. The work, perhaps, is also less satisfying, because it is not shared with others.

If advances in information retrieval technology really lead to every scholar sitting at a console, calling up data and books and articles in splendid isolation, I believe we will be the worse for it, just as we will be worse off if “publishing” comes to mean dropping one's little pebble of information into the deep well of a database with no hope of hearing the faintest splash. The projections that foresee the disappearance of libraries, and librarians working themselves out of a job, fill me with despair, unless I conclude that what those writers mean by a library is very different from what I mean.

Let me acknowledge once again that books have great aesthetic appeal to me, and I love to browse through stacks of them. But I do not think of a library as simply a giant warehouse for books. If the library of the future becomes a storehouse of computer memories and microforms, rather than of books, my aesthetic enjoyment will be reduced; but that is really a minor consideration. For a library is far more than a storage or retrieval center. At its best, a library is a model for the teaching-learning process. I am going to describe that model, using the Lilly Library at Earlham College, which I know best, but intending to make the model widely generalizable.

First of all, the building is designed for a multiplicity of uses, all of which are essentially voluntary. Materials for both information and enjoyment lie close at hand. One may come in to read the newspapers or magazines, check an atlas, look something up in an encyclopedia. One may think of the library the way George Bernard Shaw thought of marriage, as combining the maximum opportunity and the maximum temptation. Databases may have everything available and up-to-date that I have described, except the context. Browsing in a database—a form of play that is “rather expensive”—will never be the same as walking through a space with so many different temptations drawing the eye. The library user—often called a patron—identifies what he is looking for; if he cannot find it he goes to a librarian for help. The librarian engages in conversation with the patron, drawing out more about his interests and needs. The patron may be shown where to find what he wants; taught how to find it and things like it in the future; or helped to see that he actually wants something very different. That is, to think of the college situation, in the process of describing his interests or his assignment, and learning what the library is best equipped to provide, the patron may have his wants refined and redirected. The process helps him frame his question better. That clarification process can be helped by computer searches, but I think its most important aspect is that it is a conversation between two people face-to-face. More than information is transmitted in that conversation; attitudes, values, tone of voice, respect, and human interest all are part of that conversation. Every research project needs something to give it human scale. That is research as a social activity.

Such a library provides a learning milieu
that is ideal for independent study—for both the beginner and the experienced researcher. The librarian acts as a facilitator, giving a great deal of help and advice but leaving the patron to do the actual work. As a general rule, the librarian is not involved in evaluating the researcher's performance.

The library I am describing has seminar rooms, typing rooms, lounges, a faculty lounge, smoking rooms, a variety of carrels, tables, and chairs for people to use in their reading and writing. There are rugs on the floors in some places, and it is not uncommon for us to see a student napping on the floor with books and papers beside him. The library has Xerox equipment and computer terminals, a language laboratory, and other audiovisual facilities. All this is available for people to take from as they wish, subject only to those rules about control of material and etiquette that make things available to the greatest number of users.

I want to emphasize my point here. I am not conceiving of the library as an information retrieval system primarily but as a social system, a teaching-learning milieu in which retrieval of information is only a part of the goal. Browsing, conversation, exchange of ideas, sharing and confirming values, supporting one another in the common enterprise of study, reflection, and publishing one's findings—these are extremely important to what a humanist, or any member of the scholarly community, does. Take them away, and we will be alienated from our work and our colleagues. Improved technology is a splendid help in accomplishing many of our tasks, but both the successful accomplishment of our work and the satisfaction we get from our work depend on the links with the community of scholarship.

I am arguing that the library is not merely a place or a collection of functions but a living symbol of valuable and rich human relations. One can listen to a church service on radio or television and be inspired by the sermon and the music; one can go to a drive-in church and see the service firsthand, while sitting in one's own "solitude covered with iron," as Robert Bly describes the automobile. But I find it very hard to believe that one can truly share communion by radio, television, or drive-in services. Communion, our deepest experience of self-transcendence, comes only in the closest association with other humans. And in our work as teachers and as researchers we know something of the joys of self-transcendence, being caught up in a text or a search that makes us forget ourselves, and we also know the joy of communion, of finding kindred spirits, dedicated scholars and writers who are a part of our human family. There must be places where such things can happen and be confirmed and memorialized. Universities and colleges are such places. So are libraries.

You may know that Lincoln Steffens had developed his phrase about the Russian Revolution before he ever got to see the revolution itself. On the train from Western Europe into the Soviet Union he was practicing the phrase: "I have seen the future, and it works." If I were the Luddite I have posed as, I would be practicing my own phrase—something like, "I have seen the future, but it is down at the moment." But of course it would be fatuous to wish that brilliant inventions fail, that laborsaving devices be replaced once more by mind-wearying drudgery. We can have the benefits of new technologies, along with the benefits of the best methods and goals of the past and present, if we are reflective about what we want from the machines we have created. With wisdom and care, we can find that the new developments in library and research technology in the decade ahead help us to do our jobs better, with more satisfaction, help us become more skilled and subtle craftsmen and craftswomen, and far from alienating us from work or one another, help us find richer associations and deeper communions. If those things happen, however, it will not be because or despite of machinery, but because the human spirit can express itself in the new ways as well as the old.

REFERENCES

The 1980s will be a difficult period for liberal arts colleges. Fiscal support will be insufficient to meet institutional needs. Private colleges will suffer, and their libraries will suffer particularly. Ironically, this will occur at a time in which the growth of scholarly publication will decline—providing these libraries with increased opportunity, if they can preserve their fiscal support, to acquire the materials that they need. Although the prospects are grim, strategies for adaptation and successful survival exist, and they must be undertaken by colleges and their libraries in the difficult years ahead.

INTRODUCTION

Let me get right to the point. The argument I want to make is as follows:

1. Liberal arts colleges are going to have an extremely hard time in the 1980s, but not primarily because of the demographic decline. The demographic decline is a serious challenge to the creativity and resilience of liberal arts colleges, but they are resilient, and having to respond to the altered demography might, in a healthy economy, stimulate much valuable change.

2. However, change requires capital to finance the reallocation of resources currently in place and to finance new ventures, and capital will not be widely available, especially to the institutions that need to change the most.

3. Therefore, the demographic decline will very quickly have a major negative impact on a large proportion of the private liberal arts colleges and on most private universities as well. American higher education will become more homogeneous in the next decade, an outcome that I believe to be unfortunate for the consumers of higher education in this country.

4. The libraries at these institutions, already starved in the 1970s, will shoulder a disproportionate share of the budget cuts because library materials expenditures are easier to cut than people. Because of the relative unavailability of capital, most institutions will not be able to adopt laborsaving and material-saving library technologies. Large initial investments must be made while the savings come much later.

5. All of this will occur, ironically, precisely at the point in history when libraries finally have a chance to have their collections grow at least as fast as the growth of knowledge.

6. While I am extremely pessimistic about the future of liberal arts colleges, I believe that realistic and possibly successful strategies for adaptation exist, and that they must be tried even given the adverse atmosphere. Institutions need to undertake honest analyses of their strengths and weaknesses relative to the competition; they must analyze the availability of alternative markets; they must explore alternative products; and they must aggressively pursue needed capital.

THE 1980S HAVE ARRIVED

The 1980s have arrived. The 1980s refers, in our circles, of course, to a by now well-defined set of challenges before American higher education, presented by the vagaries of demography, fundamental problems with the economy, and the government's attempts to respond to them. The sizes of the age cohorts traditionally served by undergraduate colleges have begun to decline, and this is taking place in an economic environment...
which is almost maximally unfavorable to higher education. The economic environment became less favorable a little over a decade ago, and as a result the 1970s were a struggle for all of us. There is a good chance that the 1980s will be much worse. The demographic problem, or at least our recognition of it, is more recent in origin, but its character is much more fixed and certain than that of the economy.

In spite of the certainty of the demographic decline and of some of its consequences, there was a widespread hope in the groves of academe that the market would respond by itself to the excess supply of educational services now available, without adaptive change on the part of institutions to stimulate new demand. Many people were absolutely buoyant last spring when the Chronicle of Higher Education was reporting large increases in applications to both public and private institutions. Their buoyancy had to be misguided, however, because the number of eighteen-year-olds in the population is less this year than last, and no major changes intended to stimulate demand have been accomplished in higher education generally.

Sure enough, in its September 2 issue, the Chronicle reported the results of a survey of admissions officers at 581 private institutions by the National Institute of Independent Colleges and Universities: the number of freshmen in private institutions this fall is down 2.2 percent, and overall enrollment is down .6 percent.1 As one might expect, there are variations by region and type of institution (the freshman decline is 6.6 percent for institutions in the Middle Atlantic states, for example), but the overall conclusion is clear. The 1980s have arrived largely in the form that was predicted.

But liberal arts colleges are a resilient form of human organization. While often small and generally quite specialized (a characteristic which makes them more vulnerable than diversified universities when their ecological niche is threatened), liberal arts colleges are also easier to manage, and they command much more loyalty and commitment from all of their employees, not just faculty. The people in these institutions are generally more willing to make personal sacrifices on behalf of the college. If a new direction is proposed in any organization, those involved must agree to pursue it vigorously or it will fail.

This intangible feature of small colleges is, I believe, a great asset as the 1980s unfold, but we are witnessing an attack on the financial base of private higher education without regard for institutional quality, prestige, or mission. The attack is such that all liberal arts colleges will have to change in important ways even if their goal is to remain largely the same. If demography were the only problem and the economy were strong and vital, the challenge would not be so severe. The resources necessary to finance useful adaptation would be much more available and, with good leadership, change might be accomplished efficiently and effectively.

However, student fee income, income from endowments, and income from new charitable gifts—the three major sources of income for private institutions—are all unfavorably affected by the combination of external factors currently operating.

Even for wealthy colleges student fee income is by far the largest single income source. Student fee income is, of course, threatened by the demographic decline: fewer students means less fee income for the private sector as a whole. But even colleges that manage to retain their enrollments and continue to have excess applicants can come to have a student fee income problem if they find that they are unable to pass the fees they need through the market without hurting their market share. Research at Carleton College2 and the research of others3 indicates that students and their parents are extremely price-sensitive these days. To sustain its market share a college may well have to charge less than it needs to maintain its current level of quality. If price restraint is closely correlated with quality declines, and is not the result of real increases in efficiency (something that is very hard to accomplish in a labor-intensive organization), market-share declines may eventually produce enrollment declines, and a positive feedback loop of serious consequence will be the result.

Endowment income is also constrained in today’s economy. For endowment income actually available to the operating budget not to decline in real terms, total return must consistently exceed the rate of inflation plus whatever percentage of current market value an institution chooses to spend. It is well to...
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I remember that endowments have generally not kept up with inflation in the last ten years even after one adds in the new gifts received. It is my understanding that only two private institutions—Swarthmore and Princeton—have earned so much and spent so little over the years that the value of each endowment unit has kept up with inflation (i.e., gifts made years ago have a market value today equal in real terms to what they were at the time of donation). At those institutions new endowment gifts have resulted in real additions to the budget and real increases in endowment market value.

A few other institutions have come close to holding their endowments constant in real terms over the last decade (that is, after the effects of inflation are taken out), but only by successful capital fund raising. Now, as all of you know, changes in the tax laws have decreased the incentive to give, and especially so for the very wealthy, those whose gifts make the biggest difference.

Finally, government gifts and grants in support of higher education have been drastically curtailed, and the prospect is for further cuts. Current gift income, which directly supports the operating budget, has therefore also been reduced just when the tax incentives for individuals to give have been cut.

Institutions that do nothing to become more attractive to students and capital, and which manage their endowments in the same old way, will find the going very tough. The severity of this financial crisis is such that even the best institutions will have to change. Because of declining demand (due to the demographic situation and high prices), because of the state of the American economy and its impact on endowments, and because of decreased incentives for donors to make charitable gifts, private institutions will have to restructure themselves. They must consider changes in the quantity, quality, and nature of their mission and programs.

**Insufficient Capital Available**

If private institutions faced with the financial situation just described were to analyze their circumstances carefully and, if necessary, seek new ways to be of service, it would be a very good thing for the country. Apart from the pragmatics of it, boards of trustees and managements of private institutions have a fiduciary responsibility to adapt so as to continue to provide services that the public finds valuable. The assets of private colleges and universities exist largely as a result of gifts from individuals, corporations, and foundations for the purpose of helping to ensure in perpetuity that an important social need will be met: the education of the populace. Those of us who have some responsibility for the directions taken by our institutions have a legal and moral obligation to find valuable educational services to perform if demand for the services we now provide declines. We must change in response to the demographic and economic pressures of the 1980s in order to continue to be of service.

That said, we must acknowledge that the going will be very hard, because adaptive change requires capital to finance reallocation of resources and the launching of new ventures, and capital will be very difficult to obtain. Were interest rates not so high one might borrow the capital necessary for change, to be paid back from the income earned in new ventures. One could liquidate fixed assets, but many colleges are distant from urban areas where a variety of options might be pursued and, in any event, many college fixed assets were designed for specialized purposes, making them hard to convert to other uses. Another option is to spend endowments, and most colleges have done this at least to some extent, but if that is done one must find ways to compensate for the lost current income. Or, one might, as did late industrializing countries, extract capital from the peasants—in the case of colleges this would mean holding salaries and wages well below market in order to use the funds saved as capital. This kind of capital formation is most possible in denominational private colleges, where the commitment of employees to the institution is sometimes so strong that they may accept this kind of levy rather than see the institution fail. For most colleges, however, significant capital accumulation cannot be achieved in this way, and many would argue that it should not be so accumulated. Finally, as I have already indicated, gifts of capital will now be much harder to obtain.

I don't mean to suggest that capital will be completely unavailable; rather, I want to stress that the possibility of useful adaptation
by private institutions to the demographic decline is significantly diminished because capital will be more scarce than it has been. Therefore, the demographic decline will have a quicker and more negative impact on private higher education than it otherwise might. American higher education will become more homogeneous in the next decade with the loss of strength in the private sector, and that is a loss for consumers in this country.

**Libraries Will Be Especially Hard Hit**

Liberal arts college libraries will be especially hard hit by the circumstances just outlined. It is my understanding that, except at the best colleges and universities, libraries have already suffered greatly during the 1970s. Though there was no demographic decline to contend with, institutions faced high inflation and experienced extremely poor endowment investment results during the decade just ended. Because library materials expenditures are much easier to cut than people, and because materials budgets are large, many libraries have fallen way behind in collection development.

The 1980s, as I have argued, will be even more difficult financially than the 1970s, and it is likely that libraries will shoulder a disproportionate share of whatever further budget cuts colleges have to make. Some claim that there is a technological revolution just around the corner that will provide greater access to the kinds of information students and faculty need at much lower per-unit costs. Even if that optimistic result comes to pass, most institutions will not be able to adopt these labor-saving and material-saving library technologies, because large initial capital investments must be made while the savings come much later, and not enough capital will be available at prices institutions can afford.

All of this is occurring, ironically, precisely when libraries could finally hope to afford to collect scholarly materials at the same rate that they are produced. Derek Price, as you will certainly know, has long argued that the natural growth function, at least for scientific knowledge, is exponential. Some quibble about the fact that Price's indicator of the growth of knowledge is the growth of publications, but that issue is quite secondary for librarians, whose real problem is coping with the growth of publications no matter what that says about the growth of knowledge.

Price has shown quite clearly that, over the entire history of Western science, publications, major discoveries, and other things about science one can count have grown exponentially. The same may very well have been true about other kinds of scholarly publications. Now, if there is something inexorable about this process, something intrinsic to the growth of knowledge, libraries have a serious problem. The doubling times for publications have been much shorter than those for acquisitions budgets, at least at the colleges with which I am familiar, and that has meant that each year a smaller proportion of the world's new knowledge was collected in the library. If one projects that situation into the future, one discovers that eventually, in the limit, a library like Carleton's would be collecting a proportion of the literature very close to zero. Even with the wonders of technology, which may significantly increase resource sharing, the prospect of collecting such a small proportion of the new knowledge produced is depressing.

But I want to argue, on the basis of my own research on publication patterns in physics, which I believe in this instance are generalizable, that we are about to experience not continued exponential growth but a leveling off and perhaps even a decline in the number of new scholarly publications produced annually. That is because the number of scholarly publications produced each year is closely related to the number of scholars working in research. Individual scholars tend to publish at a more or less constant rate over their professional lives and, in the aggregate, the number of papers per scholar is a constant. We have seen publication growing exponentially for a long time because the population of scholars publishing was growing exponentially. This is no longer true, at least in America, and the publications of American scholars make up the largest fraction of new acquisitions in American libraries.

In a simulation of article production patterns in high-energy physics, presented by me and my collaborators at a UNESCO conference in Dubrovnik, Yugoslavia, we showed article production in that part of physics lev-
eling off by the mid-1980s. What happens after that is dependent upon rates of Ph.D. production and rates of retention in research—we call them “survival rates”—for those physicists already publishing. We have seen nothing that suggests that either increases in Ph.D. production or increases in retention are in the cards.

I believe that the same fundamental relationship between population and scholarly publication exists in all fields, though rates of publication do differ by field due to differences in research technology. Very high technology fields, such as experimental high-energy physics, can actually have much lower per capita publication rates because large groups of scientists are required to perform experiments that can take three to five years to complete.

All of this suggests to me that a library like Carleton’s, by collecting a constant number of books and periodicals each year, which we have been able to afford and should be able to continue, can in a few years find itself collecting a constant, or even increasing, share of the literature published in English. If the Carleton library collects just the best of what is produced, which of course librarians always do, then it will be apparent how much more hopeful we can be about the structure of liberal arts college libraries.

**CONCLUSION**

Sadly, as I have said, this opportunity to keep up comes just when the resources necessary even to stand still are not likely to be available to most college libraries. We deserve better, and those in this society who need and desire higher education of the highest quality deserve better.

Nevertheless, realistic and possibly successful strategies leading to useful, as opposed to mere, survival do exist. To repeat my earlier remarks: institutions need to undertake honest analyses of their strengths and weaknesses relative to the competition; they need to analyze the availability of new markets; they need to examine new ways to be of service; and they need to pursue aggressively the capital necessary to finance change.

**REFERENCES**

5. Ibid., passim.
Options for the 80s: Directions in Academic and Research Libraries

Libraries are remarkably responsive organizations that have adapted and changed substantially over the years. Major changes have occurred in collection development, service programs, bibliographic control, professional standards, and in operational responses to new technology and changes in publication methods. The overall pattern of change has been gradual, and it has been stabilized by well-established institutional routines. More changes lie before us, particularly in the areas of professional staff performance, relations with our parent institutions, and directions in collection development. Our effectiveness will be measured by how we address these issues.

Devine, si tu peux, et choisis, si tu l'oses.—Corneille.

(Guess, if you can, and choose, if you dare.)

Over the next decade or two, academic and research libraries either will get better or worse. They will not remain the same. Libraries will change; that is inevitable. The principle matter before us as we contemplate the 1980s and look ahead to the next century—less than a generation away—is to identify the options before us. Which options or choices are open? Which ones are closed or have been removed? Are there options or choices we have not yet identified? The choices, or strategic choices to be more precise, are ours to make.

I begin this paper with the quotation, “Guess, if you can, and choose, if you dare.” We make these choices; we seek answers to our questions in the face of ambiguity. We make decisions in the face of uncertainty. Ambiguity and uncertainty are a part of our future as they were of our past.

The announcements for this conference emphasize change: “We are in a period of substantial and far-reaching change. Our society is changing. Higher education is changing. The disciplines are changing.” True enough. What was not said is that libraries, too, are changing. Thank goodness. Without the capacity, willingness, and ability to change, organizations—libraries—die.

What is required is that we observe our own libraries and the environments surrounding them. The academic library is shaped by its environment. It is natural and quite appropriate that we wish to learn about that environment, for as Paul Buck, writing a generation ago, emphasized, the proper basis for change is responsiveness. We need change, not for itself (though in itself change can be revitalizing, at least temporarily), but for the purpose of adapting to new needs and new circumstances.

These needs and circumstances can be of many kinds, stemming from a myriad of sources. The most obvious of these stimuli is, of course, the new technology symbolized by the computer. Rather than adding to the many speculative projections on the impact of technology on the library, however, I have chosen to concentrate upon several general issues of importance to librarianship that place choices or options before us. My emphasis will not surprise you. My emphasis is on the library as an organization. My observation is the library will change as it responds to changes in its environment.

Some of the literature of librarianship suggests that libraries are rigid and inflexible organizations. Our observations and our experiences, however, tell us that academic libraries are remarkably responsive. Li-

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Libraries are imaginative in the ways in which they change in response to their environments. Libraries change frequently. Libraries change as they routinely adopt new personnel, new policies, new procedures, new postures.

Since change is a given in libraries, we should realize that most of it comes as a result of relatively stable processes: the application of standard rules and procedures and the rational efforts at problem solving, of trial and error, and of conflict resolution.

We would be delighted if change would occur in sudden, dramatic moments or in one glorious and grand decision. It just doesn’t happen that way.

A dwarf sees farther than the giant when he has the giant’s shoulders to mount on. —Coleridge.

The history of the past fifty years or so of American academic librarianship is well known and well recorded. Being an amateur in such matters, I will leave the historical discussions and comments to others more able. But let me call to mind—the zest, the energy, the excitement we believe now to have characterized our profession during the period of roughly 1925 to 1975. The founding of the Association of Research Libraries (ARL) in 1932 and the publication of the first issue of ACRL's College & Research Libraries in 1939 are only two indicators of the ferment. As a profession we have taken for granted the influence of ARL in shaping the direction of research librarianship and we have underestimated the impact on the profession of a journal devoted solely to academic and research librarianship.

The efforts of the giants of the profession, Keyes D. Metcalf, director at Harvard, 1937–1955; Robert B. Downs, director at the University of Illinois at Urbana-Champaign, 1938–1971; Frederick H. Wagnman, director at the University of Michigan, 1953–1978; Stephen A. McCarthy, director of Libraries, Cornell, 1946–1967; Robert G. Vosper, director, UCLA, 1961–1973; Herman H. Fussler, director, University of Chicago, 1948–1971, and a host of others resulted in extraordinary accomplishments. To be a part of librarianship during this period of expansion, an expansion of such monumental proportion, and to know and work with the people shaping librarianship was very exciting.

It is problematic whether those at the heart of the decision making recognized the change in which they were engaged as they worked each day in the library, met with colleagues, answered the phone and the mail, and tried to interpret their own actions in light of the day’s problems. Only in retrospect do we observe the change as being extraordinary and dramatic, coming as it did in a culmination of many small actions and decisions.

Many choices were made by these great librarians, based upon their assessments of their own institution’s environment, the requirements of the profession, the influence upon all research libraries of the general expansion of higher education, and the demands of the publication explosion. Colleges and universities and knowledge in general were expanding in ways never before contemplated or experienced.

Scores of libraries in research universities in the U.S. became libraries of the first rank during this period. Our fine college libraries and independent research libraries grew and prospered. During all of the ferment, choices were made to achieve these outcomes. The growth and development of academic libraries in the U.S. since the Second World War has been phenomenal, and the building and shaping of that growth stimulated the profession in ways we are only now assessing. This unparalleled expansion and growth of academic libraries offers a remarkable history.

David Starn is fond of recounting a famous, if apocryphal, story about one of the first conferences of the American Historical Association held away from the East Coast. The AHA was meeting at the University of Wisconsin in the mid-1930s. At one of the cocktail parties a prominent eastern historian asked a distinguished historian from Madison how far east he had to go to reach a good library. The quick reply was the British Museum. Now fifty years later, the response would be quite different. We have superb libraries. Although probably exaggerated, an American librarian has been quoted as saying, “My guess is that the post-war American university library boom will someday be considered as important to the growth of knowledge as the development of the German doctoral disciplines was to research in the 19th century.”

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We moderns, the old schoolman said, are dwarfs mounted upon the shoulders of giants, able to see so far only because we perch atop the immense bulk of the ancients. Yet, being able to see further than they, sometimes we dwarfs grow contemptuous of the giants, and give them a kick, or aspire to stand in mid-air; and then down we go to the bottom of the ditch. — Russell Kirk.

As a result of past efforts there now are throughout the country collections capable of supporting advanced study and research in every field. There are countless new academic library buildings, some architectural gems, others undistinguished but serviceable, which house these collections.

The selection function, for the most part, has become the responsibility of librarians, not faculty members. The high quality of reference work performed in academic libraries is commented upon in the acknowledgment sections of many treatises and texts and in the countless letters written by grateful students and scholars. The extraordinary accomplishments in the areas of bibliography and bibliographic control are well known. They are of the highest quality. Our libraries are well managed.

The professionalism of the academic librarian, shaped by the growth and development of graduate library education, continues to advance. We have made great strides in turning library work into a profession. In Europe, as a thoughtful observer of the international scene has commented, "the libraries are better than the librarians." 4 That comment could not be made about the United States. Here the academic and research librarians are worthy of the collections and the patrons they serve. Our libraries and our librarians have obtained a common stature.

The accomplishments of the profession are ones of which we are proud. They are ones upon which we can build. We will build upon them slowly and surely, by trial and error, just as the past accomplishments were achieved.

What is ahead? Unprecedented change, of course. Just as the unprecedented change of the post-World War II expansion led to the exemplary responses of librarians and libraries of that time, so are we required to make the proper assessments and the proper responses.

We are in the midst of change. Technological developments have led to revisions in the ways libraries carry out their primary functions, in the ways librarians select and order materials, place these materials under bibliographic control, and carry out reference and circulation services. Libraries now buy services formerly carried out in-house. Can any of us remember the catalog department of ten years ago? It is not the department of today. I don't expect today's department to be that of tomorrow, certainly not of the next century. But the inevitable changes, while dramatic in retrospect and perhaps painful in design, brought about by the changes in the methods we use to handle our production processes, occur in small bits and pieces, in fits and starts.

Since 1970 extraordinary innovations have been introduced in libraries. Those being proposed for the 1980s perhaps are even more fundamental. During the 1970s we worried about the introduction of automation in libraries. By the end of the decade automated systems were in place. We now use computer-based information systems in reference services. These information systems identify materials not in our libraries. The systems identify papers often not scrutinized or judged by journal editors nor subjected to decisions based upon the judgments of librarians. These developments will result in greater information overload than we have now—the "static," as Oscar Handlin puts it—which makes our task more difficult and more critical.

We expect major changes in the methods of publishing and in the formats of publication. Each of these innovations is growing and developing. Only a few are based in technologies likely to persist over a long period of time; that is, only a few—computer-based circulation control, LC MARC-based computer-generated catalogs, and antitheft devices—are climax technologies. 5 Other innovations, based in changing or intermediate technologies, continue to grow, develop, and change.

Some environmental changes have been described at this conference:

Thomas Melady indicates that to reduce inflation is the government's goal. If the present rate of inflation in library materials were reduced or controlled, could we quickly
enough make appropriate changes in our budget justifications?

Robert Rosenzweig observes that government involvement in the research enterprise will continue. He describes that involvement as a dependency, not as a partnership, shaped by the democratic political processes. Are we librarians skilled enough, are we political enough, to operate in this environment?

Daniel Sullivan argues that, at least in the private liberal arts college, libraries will absorb a disproportionate share of the budget cuts. He also points to the inevitable enrollment decline occurring with the demographic shift and suggests an environment of greater and greater institutional competition. How will we respond to an increasingly competitive institutional environment with our programs of sharing every resource regardless of institution. Might these be incompatible goals?

The mark of wisdom is to read aright the present and march with the occasion. — Homer.

I speak to you not as a prophet nor a seer with a crystal ball. Rather I speak from experience as a university librarian who must make daily decisions, and who is compelled to make choices often with insufficient information, little time, and less than a clear vision of how the decision is ultimately implemented. Also I am a student of organizations, so I try to understand the behavior of organizations, fitting my observations into a theoretical structure. In general I believe that organizations, and libraries as organizations, seek to make routine the work done in them. Organizations, and libraries as organizations, continually strive to make complex tasks simple, ambiguous problems obvious. Also I believe that organizations — libraries — continuously act in responsive ways to their environments.

Although I speak of change, encourage change, recognize the need for change, and strive for change, it is my view that an effective library, adapting in a responsive and sound way to its environment, will have its primary basis for change in systems of routine behavior. That may seem to be antithetical to our need for change. The extraordinary change in libraries occurring during the last decade and in the last thirty years came about in the small, routine decisions that govern the daily affairs of our libraries. The change did not occur in sudden, grand decisions, in a single grand design.

So what are the choices or options before us as we move through this decade toward the next century?

We can choose to hire the best librarians we can find, seeking those who are educated, not in the techniques of today, but in a philosophical and technical base that prepares them to design the techniques of tomorrow. Some libraries will continue to seek librarians who are the skilled technicians. Others will seek the creative, imaginative, ambitious graduates, librarians interested more in a career than in a job.

We can choose to base our professional criteria for appointment, promotion, and security of employment in the daily, on-the-job performance expected of all staff members, or we can ask something more of our professional staff as regards professional growth, research, and publication. It has been estimated that about 15 percent of academic libraries, libraries of all sizes, now require evidence of some kind of professional growth for advancement. Other libraries can choose and will choose to add these criteria to their own.

We can choose to place our well-educated “new hires” into jobs that demand more of them than they can give at first, or we can place them in jobs that may be less than professional. The profession and each academic library continuously seek to define their professional and nonprofessional work. We continue to make routine the librarian’s task. Jobs formerly performed by librarians now are performed by paraprofessionals, clerical help, and, in some libraries, by students. At the same time a library makes choices about its present jobs and the skills required for them, it creates new jobs with new required skills. The process is an ongoing one. There never will be a definitive answer as to what is professional work and what is not. Each library will make some choices about that. The basis for choice will be the decision made by each librarian as to what constitutes the professional work he or she does. For the “new hires” the process of job definition may be slower than they would wish. That is an organizational tension likely to continue, given the very nature of organizations. It is a tension that can be creative or destructive de-
pending upon the situation.

We can choose goals and objectives for our libraries. The traditional goal of the academic library, and a goal to which we all still subscribe, is that the library serve the goals and objectives of the institution of which it is a part. In seeking cooperative solutions to some matters relating to bibliographic control and access, we have tended to assume that all academic libraries are driven by the same goals and objectives, thereby assuming by extension that all colleges and universities also are driven by the same goals and objectives. In making such assumptions we may have weakened the traditional goal of the academic library, removing it from its immediate environment and placing it in a more general and less localized context. What I am trying to suggest here is that it may be unwise for us to ignore the intense competition that may exist between or among institutions—competition for students, for operating capital, for research dollars. While striving to achieve a common goal of sharing library resources, some libraries may find that goal surprisingly inconsistent with that of its institution. Sensitivity and careful observation of goals and objectives—are they mutually held?—is required.

We can choose to respect the decisions of other libraries or not. We can expect each library to make its own determination of priorities or not. We can treat those who hold different opinions or make choices different from our own as colleagues or as opponents, either supporting them or attempting some sort of punitive action against them. There has been a tendency in library thinking, when one differs with a decision, to criticize not the decision, but the decision maker; not to attempt to reason a change in opinion or in the priorities of others, but to force a change in them. We can choose to follow this course or not. But each choice or option will influence the future growth and direction of our libraries and ultimately of academic librarianship.

The profession generally agrees upon its national problems: continued exponential growth in recorded literature and information; cost pressures related to inflation, rates of exchange, and college and university budgets; emergence of new and expensive information services; the deterioration of paper; and the self-destruction of stock in many libraries are some of them.

The profession does not yet agree on the appropriate or suitable responses to those problems, nor do we agree on how an individual library might respond. Those librarians who continually assess their library's environments, who know the needs of their primary clientele, who have the collections and the methods to meet those needs, who reflect on the future needs and methods, and who have the courage to choose priorities in their best judgment and in the force of incomplete information rather than to guess at priorities, will provide the answers for many of us.

We can choose our collections. These choices may be the most significant of all. The services of libraries have their bases in the collections, so our fundamental interest in collections must continue. Our collections are shaped by the instructional programs and research interests of our institutions. The collections are not shaped in the warehouse of a jobber or in a state office somewhere.

While we work on methods of bibliographic control and access to retrospective collections developed in the past, we are selecting and building the collections that will form the retrospective collections of the future. How will we choose to shape these collections? What judgments will we make? Are we collecting materials today that will go into remote storage collections of tomorrow? In his book Academic Research and Library Resources, Charles Osburn says this about the library and research:

The scientist is no longer a "scholar"; he is a researcher who pieces together bits of information acquired by whatever means is the fastest and most efficient, and applies it to a theory and methodology of his own creation. In this cycle, the purpose of publication is more often the establishment of historical record and precedence than the communication of information so that the maintenance of large local collections of scientific literature may be more politically motivated than substantively motivated.

About the social sciences, Osburn comments:

Far from being the heart of a research activity in the social sciences, the library, as a collection of books and journals, constitutes only one of the many tools used by the social scientist... With
the exception of a small core of journals, monograph works that summarize research progress in specific disciplines, and statistical compilations, printed materials in the social sciences constitute a useful historical record of achievement, but otherwise are of little immediate value to research.

Do these general observations match what we observe on our own campuses? Should we base our own library's collection development policies on them? What might determine differences? How does the library identify differences and respond to them? These questions require careful and deliberate responses. The answers should lead to careful and deliberate choices and decisions. They will lead to diversity in collections. Every library has these questions before it.

The zest, energy, and excitement of the past are here today. Those who follow us and will reflect on the period from 1975 to 2000 surely will marvel at our accomplishments. We who are shaping those accomplishments will not see the results of our efforts as easily. Our decisions are built upon the stable processes found in all libraries. Organizational change comes slowly, but it does come.

The effectiveness of our libraries will be determined by the decisions we make about who is to staff them, the choices we make in establishing criteria for appointment and promotion, and the abilities we have in assessing the growth and development of our librarians.

The match or the fit between the library's goals and objectives and the goals and objectives of the college or university it serves will shape the library's overall effectiveness. The interests and requirements of the primary clientele (are those requirements accurately identified, are methods and techniques for serving our patrons available, can we assess future needs?) and responses to those interests and requirements will determine our effectiveness. The understanding of our library environments and an awareness of the variety in goals and objectives are central components.

Those choices made daily by various librarians in our libraries, that is, the selection of materials we add to our collections, perhaps form the most critical choices of all. The excellence of the selection decision, infinitely more complicated now by the sheer volume of materials available, the reduction in peer review and scholarly judgment prior to publication, and the expanding boundaries of the disciplines, will lead to the retrospective collections to be used by scholars in the next century. The continuing excellence of our libraries will depend upon the choices made with regard to collection development and acquisitions.

As a profession we have the knowledge, skill, and ability to determine the direction of our future. Our libraries and our librarians will make the critical choices. We cannot guess. We must choose, knowing full well the hazards and difficulties. Choice is never easy; it also is never dull. I am confident that we will choose wisely and choose well.

REFERENCES

The Future Federal Role between Government and Higher Education

In the 1980s, the federal government's role in higher education should be focused on controlling inflation, ensuring equality of services, reducing regulation and paperwork burdens, and improving quality. Its primary budget strategy will be reduction of federal funding, while it will continue to provide assistance to lower-income families as well as supplemental aid to students. Major federal programs will include improvement in the quality of higher education, ensuring continuous access by all Americans to higher education, support for the "historically black colleges," and expansion of language and area studies. Although the cabinet status of the Department of Education will probably be removed, this will not affect the implementation of these goals.

The Reagan administration has assumed leadership of this country after decades of increasing federal involvement in all areas of American life. In higher education that involvement has been tied to increased federal assistance coupled with disproportionate growth in federal requirements. Government involvement in education has culminated in the creation of a separate department for education. During this period, however, the quality of education has not shown any marked improvement. Rather, the reverse has occurred as evidenced by the steady decline over many years of academic standards in test scores.

This administration believes that growth of federal involvement and intervention must be reversed. We believe that the federal government has gone beyond its authority in matters of education. The federal responsibility is to provide services fairly and to guarantee equal protection of the law to its citizens. In education, the federal role is to complement and supplement the efforts of parents, states, and local governments.

Under this administration we can expect a reduction in the monitoring and enforcement role the federal government currently plays in education. Federal education programs will be simplified, and in some cases, consolidated. When federal intervention is required to address critical national needs or problems, state and local governments will be provided the autonomy and latitude to use available funds with increased responsibility and discretion.

As for the Department of Education, we are looking to fulfill President Reagan's promise to remove its cabinet status. In August of this year, Secretary Bell sent to the White House a paper that outlined options for the future configuration of the department. The options ranged from making it an independent agency or a foundation, to returning it to the Department of Health and Human Services (formerly Health, Education and Welfare), to scattering its functions among other federal agencies and departments. This has caused a great deal of discussion and concern about the possible demise or change in the philosophy of federal support to education. However, while the structure of the Department of Education is likely to change under the Reagan administration, the philosophy of federal support to education will remain essentially the same. In other words, regardless of the organizational placement of federal education programs, federal support to education will continue to

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be available through limited and appropriate financial assistance programs designed to address national needs.

The future of postsecondary education in the United States includes some uncertainty and probable change. It should be stressed at the outset that the federal government can not and will not be the answer to all of the challenges and changes that will face higher education in the 1980s. The federal role in education will continue to be restricted, as it has been in the past, by the Constitution. In addition, the focus of federal education efforts will be tied, more so than ever, to national economic problems and to issues of the security and strength of the nation.

The key to the future well-being of education, as well as the nation, is the extent to which inflation will be controlled. Educators and administrators are facing rising costs associated with labor costs, heating and cooling, maintenance, and operation of educational institutions. Hard decisions and possible trade-offs regarding academic programs are unfortunately being made in the face of these rising overhead expenses. Clearly, something must be done.

This administration has undertaken the awesome task of trying to control inflation and to restore this nation to economic health. The centerpiece of the strategy is fiscal responsibility in all aspects of federal spending, including education. It will no doubt be difficult for each of us to put aside individual interests and to begin thinking, acting, and reacting in terms of the larger collective interest of the well-being of the nation. However, we as educators must join in to help restore the economic health and security of the country and bring inflation under control. While the cuts will not be easy to endure in many cases, we must not lose sight of the fact that, in the long run, the economy will be revitalized, inflation lessened, and overhead in education reduced.

The underlying rationale for future budget strategies in postsecondary education is that the primary responsibility for a student's educational costs lies with the student and the family. Providing access to postsecondary education for low-income students will continue to be the highest priority for federal support to higher education. Consideration will also be given to choice and, to the extent possible, the federal government will continue to provide supplemental assistance to enable students to choose institutions most appropriate to their education and career aspirations. However, reforms in the student financial aid programs are based on the premise that the federal government should not bear the full burden of underwriting the total costs of education. To that end, students, their families, institutions, and the states will have to assume their proper share of financing education.

In addition to fiscal responsibility in federal spending, the higher-education community has every right to expect that the federal government will execute responsibly and with increased efficiency those programs under its authority that Congress has authorized. It is also reasonable to expect that we will work with you to explore creative and cost-effective ways to address and solve the challenges of the 1980s. In my view, there are several critical issues in postsecondary education that will require the very best thinking, cooperation, and mutual efforts of the federal government and the higher-education community. An outline of these issues follows.

The reduction of regulatory and paperwork burdens. This is one of the most vexing problems in higher education. Coping with the broad spectrum of government regulations is not merely time-consuming; it is counterproductive in that it requires valuable time and resources which could be devoted to the enhancement of academic programs. In addition, it is further complicated by the lack of adequate coordination among federal agencies. For example, of the more than four hundred federal education programs in the postsecondary sector, less than one-third are administered by the Department of Education. Institutions must comply with regulations from practically every department of the government. For example, of the more than four hundred federal education programs in the postsecondary sector, less than one-third are administered by the Department of Education. Institutions must comply with regulations from practically every department of the government. This administration has already made a number of initial reforms in this area. The Department of Education and other agencies, with the guidance, cooperation, and assistance of Vice-President Bush's Task Force on Regulations, are currently engaged in deregulation as well as procedures to reduce paperwork burdens.

The restoration of quality in education. There is no doubt in my mind that the quality
of postsecondary education in this country has declined during the past two decades. It is evidenced by declining graduate and professional entrance examination scores, the failure of college graduates to communicate correctly and effectively, and the reexamination of curricula and the restoration of many core requirements discarded during the past decade.

In response to the growing concern about the decline of quality in education and in keeping with the responsibility to provide leadership and assistance to schools and colleges, the Department of Education has initiated a major campaign to encourage American schools, colleges, universities, and individuals in the education community to enhance excellence in learning. Secretary Bell has established a National Commission on Excellence in Education, which will be the centerpiece of this national effort to restore and promote quality in education. As the commission does its work over the next eighteen months, it will be conducting hearings across the country and collecting data to identify and study the problems in education. In addition, through the commission, we hope to identify successful programs and practices and to disseminate information about various educational models of excellence. Throughout the commission’s work, special emphasis will be placed on writing with clarity and mastery of mathematics, spelling, basic science, economics, and the principles of government in a democracy.

Your support of and cooperation in this vital effort is encouraged and solicited. All of us must strive for educational excellence and to make quality education available to all people of this nation.

The continuation of access to higher education. We must ensure that all Americans will be treated fairly in attaining access to suitable forms of postsecondary education. As stated previously, this fundamental and worthwhile federal goal will continue to be supported by this administration.

The support of historically black colleges. Black colleges and universities have made a significant contribution to the diversity of American higher education. These institutions are national assets and continue to provide education and upward mobility for black Americans. Although they enroll about 20 percent of the approximately one million blacks in postsecondary education, they have produced about 50 percent of the black business executives and engineers, 75 percent of the black military officers, 80 percent of the black federal judges, and 85 percent of the black physicians in the United States.

The Reagan administration is committed to helping the historically black colleges and the students they serve. On September 15, 1981, President Reagan signed an executive order to strengthen the capacity of historically black colleges and universities to provide quality education. The executive order is designed to increase the participation of historically black colleges and universities in federally sponsored programs and to identify and eliminate barriers that may have resulted in reduced participation in federal programs. It is imperative that historically black colleges be maintained and strengthened. Through the executive order, this administration will assure that these vital national resources are preserved.

The expansion and improvement of foreign language and area studies. The needs of international commerce and the increasing interdependence of nations are but two reasons for the need to reexamine the role of American education within a worldwide community. It is unfortunate that most college graduates today do not have competence in any language other than English and that many of the nation’s most prestigious colleges and universities do not require foreign-language competence for graduation. Students must be prepared not only to understand the world in which they live but also to participate in that world. With significant advances in travel and communications, peoples in the most distant countries are our next-door neighbors, and it is essential that we know how to effectively communicate with them and to understand their cultures.

In summary, we must take hold of our future and confront the changes facing us, seizing and molding them into our destiny. The future relationship between government and higher education must be one of partnership to address the issues and solve the problems that we must face. By working together, I believe, we can view the future with great excitement as a challenge and an opportunity.
Collective Bargaining and Professional Development of Academic Librarians

A survey of academic librarians employed in public colleges and universities was completed in December 1979. * The survey was conducted among a group of academic librarians included in collective bargaining units and a group of academic librarians not included in a collective bargaining unit. The two-fold purpose of the study was (1) to determine to what extent the librarians were involved in a selected group of professional development activities; and (2) to determine if the extent of involvement varied significantly between the two groups of librarians. The survey revealed no significant difference between the two groups of librarians in their involvement in the selected professional development activities.

INTRODUCTION

The interest of librarians in collective bargaining is the subject of numerous studies. Among the approaches to this topic are: historical accounts of the development of unions in libraries; 1 examinations of the attitudes and opinions of librarians and others toward aspects of collective bargaining; 2 the development of a framework to study why certain libraries in a given environment will unionize while another library in that environment does not; 3 and a study of the treatment of academic librarians in collective bargaining agreements. 4 In addition, the literature includes arguments for and against collective bargaining in libraries. 5

As the issue of collective bargaining continues to face librarians, more studies are needed to determine its implication for all aspects of librarianship. For instance, we must know more about the impact of collective bargaining on the professional development of librarians. A question that must be addressed is whether the presence of collective bargaining has a harmful effect on the professional development of academic librarians. This question assumes that there are certain activities that may be associated with or that are indicative of the professional development of librarians. A better understanding of the relationship between these activities and collective bargaining is needed. This type of information, coupled with other types of information related to collective bargaining among librarians, should improve the ability of librarians to make more informed value judgments concerning the implications of collective bargaining for librarianship.

The study was influenced by three assumptions: (1) The professional development of academic librarians is measurable using a select group of activities that are quantifiable; (2) faculty collective bargaining is a phenomenon of public higher education and only a comparatively small percentage of private higher education institutions are involved in collective bargaining; 4 (3) librarians are usually included in college and university faculty collective bargaining units.

Professional development activities have been defined as activities and efforts on the part of librarians to upgrade their knowledge, abilities, competencies, and understanding of their field of work or specialization so that they may become more effective professionals and so that they are able to assume responsibilities of greater scope and accountability. 7 This definition was a basis for selecting the following activities, which may be associated with or indicative of the profes-


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sional development of academic librarians: (1) membership in professional library associations; (2) attendance at library association meetings; (3) membership in nonlibrary professional associations; (4) attendance at nonlibrary professional association meetings; (5) reading library journals; (6) reading nonlibrary professional journals; (7) attendance at workshops, short courses, or seminars (both library and nonlibrary); (8) visits to observe other libraries; (9) reading of professional books; (10) publishing of journal articles; (11) publishing papers in proceedings; (12) publishing articles or chapters in books; (13) publishing or editing books; and (14) editing journals.

No attempt was made to include all of the activities that may be associated with the professional development of academic librarians. The activities were selected partly because they appear to be measurable, and partly because a search of the literature suggested that previous investigators found academic librarians to be involved in these activities.

Five formal studies indicate how academic librarians are involved in professional development activities. One investigation, using a list of thirty-seven professional development activities, found a strong correlation between involvement and importance for reading professional literature in library science and subject specialty, attending library conventions and meetings, participating in library associations, recruiting for the profession, and visiting other libraries. 8

A second study found that, while academic librarians were active in professional organizations, they were not too concerned with organizations not directly related to their profession. This study found a considerable amount of publishing activity among the participating librarians. 9

A third survey of academic librarians reported that two-thirds of the respondents held memberships in professional library associations, but only two-fifths reported memberships in nonlibrary professional associations. Over two-fifths of the respondents had attended or participated in library workshops, short courses, or seminars in the previous two years. 10

The selected professional development activities used in the present study were included as variables in a study designed to determine the relationship between a group of communication activities and a select group of professional situational characteristics of academic librarians. While the participants were involved in most of the activities, the findings seem to suggest that the publishing activities of the participants were slight. 11

Participation in professional organizations and publication activity were two variables given special attention in a fifth study of seventy-seven academic librarians in middle management positions. The participants generally felt that attendance and participation in professional associations was unimportant, as were research and writing. Forty-eight percent of the participants indicated that they read between five and nine periodicals regularly. 12 At least half had published books, monographs, articles, or reviews.

In summary, though there does not appear to be a strong consistency of involvement from study to study, the literature supports the contention that academic librarians are somewhat involved in the professional development activities selected for this study.

Ideally, a professional librarian would be defined as a person who has earned the master's degree in library science from an American Library Association-accredited library school. However, some colleges and universities have persons on their staffs designated as professional librarians by virtue of having earned a bachelor's degree in library science, or because they have gained many years of library and/or other experience that uniquely qualifies them for professional positions. A professional librarian is here defined as a person so designated by the directors of the libraries included in the study.

No attempt is made to give a precise definition of collective bargaining. Rather, the emphasis is placed upon whether the librarians are included in a faculty bargaining unit that has been designated to represent them in discussions and negotiations with their institutions on economic and/or professional matters.

It is hypothesized that there is no significant difference between the professional development activities of academic librarians included in collective bargaining units and academic librarians not included in collective bargaining units. More specifically, the hy-
hypothesis is that between the two groups there is no significant difference in their involvement in the following professional development activities: (1) membership in professional library associations; (2) attendance at library association meetings at the state level or above; (3) membership in nonlibrary professional associations; (4) attendance at non-library association meetings at the national level; (5) number of library journals read regularly; (6) number of nonlibrary professional journals read regularly; (7) attendance at workshops, short courses, or seminars (both library and nonlibrary); (8) number of visits to observe other libraries; (9) number of professional books read during the past year; (10) number of journal articles published during professional career; (11) number of papers in published proceedings during professional career; (12) number of articles or chapters in books published during professional career; (13) number of books written or edited during professional career; (14) number of journals edited during professional career.

The universe for the study includes the librarians of the public colleges and universities surveyed during the 1970–71 academic year by the United States Office of Education. The computer tape of the data, hereafter referred to as the OE tape, collected during this survey contains information from 2,751 institutions or "94% of the possible respondents to the survey." Five hundred of the institutions were classified as public four-year colleges or as universities.

The May 15, 1972, issue of the Chronicle of Higher Education identified 254 colleges and universities with faculty collective bargaining agents—72 of which were public four-year colleges and universities. This list was used as a basis for determining the population of academic librarians that are included in faculty collective bargaining units for the following reasons. First, a survey of the literature related to collective bargaining suggested that with few exceptions the librarians involved in collective bargaining were members of faculty bargaining units in their respective campuses. Second, no earlier statistics were found that were complete enough to provide a population of institutions with collective bargaining in which librarians were included. It was assumed that the librarians in the institutions on this list would have been involved with collective bargaining long enough for it to have had some effect on their activities. The librarians in these institutions constitute the collective bargaining population.

A careful check was made to identify campuses that had become involved in collective bargaining after the 1972 Chronicle listing but before the present study had begun. These institutions were omitted from the study. The librarians in the remaining 386 institutions constitute the population of librarians not included in a collective bargaining unit.

The colleges and universities in these two populations offer a variety of degree-granting programs ranging from the four-to-five-year bachelor's degree to a multitude of doctoral degree programs. In order to make more meaningful comparisons, the institutions were stratified into the following categories: university level, master's level, and baccalaureate level. This stratification process was made possible using various codes that are included on the OE tape. Baccalaureate level institutions were eliminated because it is assumed that the pressures for librarians to be involved in the professional development activities included as variables in this study are greater at the master's and university level institutions.

The sampling of the two populations was accomplished in two stages. First, using the OE tape, the number of librarians employed at each institution was determined. A random sample of libraries was selected until each level of each group contained 200 librarians.

In the second stage the directors of the randomly selected libraries were sent a brief questionnaire designed to determine the number of professional librarians on their staffs. In order to verify that each library had been placed in the correct group, the directors were asked if the librarians on their staffs were included in a faculty collective bargaining unit. Each director was also asked to provide this investigator with a directory of the professional librarians on their staffs. According to the OE tape, the selected libraries employed 853 professional librarians. The directors of these libraries indicated that at the time the study was being conducted, there were a total of 845 professional librarians in
the thirty-eight libraries.

Data used to test the hypothesis was gathered using a questionnaire based on a survey instrument developed by Swisher. The findings reported here are based upon the responses of the 542 librarians who returned the questionnaire.

FINDINGS

The first objective of the study was to determine the extent of involvement of the respondents in the selected professional development activities. Table 1 contains the mean scores for the professional development activities of the librarians in the noncollective and collective bargaining groups. In the noncollective bargaining group the three largest mean scores were for the number of library journals read during the previous year (X = 4.8908), number of professional books read during the previous year (X = 4.8650), and the number of library association memberships (X = 2.4412). Similarly, the three largest mean scores for the activities of the collective bargaining group were for the number of library journals read during the previous year (X = 4.5428), number of professional books read during the previous year (X = 4.3725), and the number of library association memberships (X = 2.4803). The pairs of mean scores for the number of library association meetings attended, number of nonlibrary professional association memberships, number of nonlibrary journals read during the previous year, the number of workshops attended, and the number of observation visits during the previous year indicate that the involvement of the respondents in publishing activities as compared with the other activities of the study was at a low level. Involvement in nonlibrary associations as members was also at a low level.

The second objective of the study was to determine if the involvement of the respondents in the selected group of professional development activities varied significantly between the collective bargaining and the noncollective bargaining groups. To test the hypothesis that there is no difference between the involvement of the librarians in the two groups in the professional development activities, the pairs of mean scores of the respondents’ activities were compared for statistically significant differences at the .05 level using the student t test. Table 1 notes the differences between each pair of mean scores and the corresponding t value. No significant difference was found between the mean scores of the respondents in the two groups on any of the activities.

To offset the effect that employment in a university or master’s level institution might have had on the involvement of the respon-

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</tr>
<tr>
<td>Editor of a journal</td>
<td>0.2269</td>
<td>0.1316</td>
<td>0.0953</td>
<td>0.70</td>
</tr>
</tbody>
</table>
Collective Bargaining and Professional Development

In professional development activities, the t test was applied to the mean scores of the librarians employed in the master's level institutions of both groups. The t test was also applied to the mean scores of the librarians employed in the university level institutions in both groups. While no significant differences were found in the pairs of mean scores at the master's institutions level, two pairs of mean scores of the university level librarians were found to be significantly different: library association memberships and attendance at library association meetings (see tables 2 and 3).

**CONCLUSIONS AND IMPLICATIONS**

The data gathered in this study supported the overall hypothesis that there is no significant difference between the professional development activities of the academic librarians in the noncollective and the collective bargaining groups (university level respondents only). The data also suggested that there is a significant difference in the professional development activities of librarians in the noncollective and collective bargaining groups at the master's level (see tables 2 and 3).

**TABLE 2**

**Tests of Significance of Difference Between the Mean Scores of the Professional Development Activities of the Academic Librarians in the Noncollective and the Collective Bargaining Groups (University Level Respondents Only)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Noncollective Group</th>
<th>Collective Group</th>
<th>Difference</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library association membership</td>
<td>2.2033</td>
<td>2.5223</td>
<td>0.3190</td>
<td>-2.10*</td>
</tr>
<tr>
<td>Library association meetings</td>
<td>1.6504</td>
<td>2.1401</td>
<td>0.4897</td>
<td>-2.10*</td>
</tr>
<tr>
<td>Nonlibrary association memberships</td>
<td>1.0244</td>
<td>1.0382</td>
<td>0.0139</td>
<td>-0.08</td>
</tr>
<tr>
<td>Nonlibrary association meetings</td>
<td>0.2764</td>
<td>0.2739</td>
<td>0.0025</td>
<td>0.02</td>
</tr>
<tr>
<td>Library journals read</td>
<td>4.2355</td>
<td>4.3376</td>
<td>0.1018</td>
<td>-0.25</td>
</tr>
<tr>
<td>Nonlibrary journals read</td>
<td>1.2358</td>
<td>1.0323</td>
<td>0.2035</td>
<td>0.95</td>
</tr>
<tr>
<td>Workshops attended</td>
<td>1.7642</td>
<td>2.0382</td>
<td>0.2740</td>
<td>-1.27</td>
</tr>
<tr>
<td>Observation visits</td>
<td>1.0813</td>
<td>1.4268</td>
<td>0.3455</td>
<td>-1.69</td>
</tr>
<tr>
<td>Books read</td>
<td>5.5902</td>
<td>3.8431</td>
<td>1.7471</td>
<td>1.54</td>
</tr>
<tr>
<td>Journal articles published</td>
<td>0.9431</td>
<td>1.2803</td>
<td>0.3372</td>
<td>-0.99</td>
</tr>
<tr>
<td>Papers published in proceedings</td>
<td>0.1138</td>
<td>0.1529</td>
<td>0.0391</td>
<td>-0.53</td>
</tr>
<tr>
<td>Articles or chapters in books</td>
<td>0.0894</td>
<td>0.3057</td>
<td>0.2163</td>
<td>-1.57</td>
</tr>
<tr>
<td>Author or editor of a book</td>
<td>0.1870</td>
<td>0.2930</td>
<td>0.0106</td>
<td>-0.90</td>
</tr>
<tr>
<td>Editor of a journal</td>
<td>0.3496</td>
<td>0.1847</td>
<td>0.1649</td>
<td>0.63</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

**TABLE 3**

**Tests of Significance of Difference Between the Mean Scores of the Professional Development Activities of the Academic Librarians in the Noncollective and the Collective Bargaining Groups (Master's Level Respondents Only)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Noncollective Group</th>
<th>Collective Group</th>
<th>Difference</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library association membership</td>
<td>2.6957</td>
<td>2.4354</td>
<td>0.2603</td>
<td>1.36</td>
</tr>
<tr>
<td>Library association meetings</td>
<td>1.7652</td>
<td>1.6327</td>
<td>0.1325</td>
<td>0.59</td>
</tr>
<tr>
<td>Nonlibrary association memberships</td>
<td>0.7913</td>
<td>1.0000</td>
<td>0.2087</td>
<td>-1.53</td>
</tr>
<tr>
<td>Nonlibrary association meetings</td>
<td>0.1478</td>
<td>0.2993</td>
<td>0.1515</td>
<td>-0.92</td>
</tr>
<tr>
<td>Library journals read</td>
<td>5.5913</td>
<td>4.7619</td>
<td>0.8294</td>
<td>1.77</td>
</tr>
<tr>
<td>Nonlibrary journals read</td>
<td>1.1913</td>
<td>1.1370</td>
<td>0.0543</td>
<td>0.18</td>
</tr>
<tr>
<td>Workshops attended</td>
<td>1.9739</td>
<td>2.1701</td>
<td>0.1971</td>
<td>-0.76</td>
</tr>
<tr>
<td>Observation visits</td>
<td>1.6261</td>
<td>1.8639</td>
<td>0.2378</td>
<td>-0.92</td>
</tr>
<tr>
<td>Books read</td>
<td>4.0957</td>
<td>4.9310</td>
<td>0.8353</td>
<td>-0.76</td>
</tr>
<tr>
<td>Journal articles published</td>
<td>0.0565</td>
<td>1.1224</td>
<td>0.1659</td>
<td>-0.32</td>
</tr>
<tr>
<td>Papers published in proceedings</td>
<td>0.1826</td>
<td>0.1293</td>
<td>0.0533</td>
<td>0.56</td>
</tr>
<tr>
<td>Articles or chapters in books</td>
<td>0.1652</td>
<td>0.1701</td>
<td>0.0049</td>
<td>-0.06</td>
</tr>
<tr>
<td>Author or editor of a book</td>
<td>0.3043</td>
<td>0.1769</td>
<td>0.1274</td>
<td>0.88</td>
</tr>
<tr>
<td>Editor of journals</td>
<td>0.0957</td>
<td>0.0748</td>
<td>0.0209</td>
<td>0.51</td>
</tr>
</tbody>
</table>
Development activities of the academic librarians in the collective bargaining group and the academic librarians in the noncollective bargaining group. However, when a distinction was made as to whether the respondents were employed in master's level institutions or university level institutions, the data showed that there were significant differences between the mean scores for the number of library association memberships held and for attendance at library association meetings of the respondents in the university level institutions. Since the pairs of mean scores for the other professional development activities were not significantly different, and since the pairs of mean scores of the professional development activities of the master's level institutions were also not significantly different, it may be that the differences found in the number of library association memberships held and the number of library association meetings attended (as was noted among the librarians employed in the university level institutions) were explainable by factors not considered in the present study. One factor (which was not explored) might be the geographical location of the respondents who participated in the study. For the most part, the librarians in the collective bargaining group were employed in institutions located in the northeastern part of the United States. Since the headquarters of the American Library Association is located east of the Mississippi River, and, since the annual conferences of this association tend to be held in cities east of the Mississippi River, librarians employed east of the Mississippi River may be more inclined to affiliate with the American Library Association and to attend its national conferences.

An examination of the publication activities of the respondents as suggested by the mean scores reported above leads to the conclusion that involvement in this type of activity by the librarians in both groups was at a low level.

The above findings appear to warrant the observation that, in general, employment in collective bargaining environments does not significantly affect the involvement of academic librarians in professional development activities. Thus, administrators and librarians alike should not assume that collective bargaining will enhance or impede professional development activities of academic librarians.

References


14. Allen Daniel Pratt, “A Logarithmic Measure of the Size of United States Academic Libraries” (Ph.D. dissertation, University of Pittsburgh, 1974), p.22. The author had access to the computer tape used to produce the printed report which was made available to Indiana University through a grant from the Council on Library Resources, Inc.


16. The questionnaire was based upon a survey instrument developed by Swisher, “Professional Communication Behavior of Academic Librarians.”

BOB CARMACK and JOHN N. OLSGAARD

Collective Bargaining among Academic Librarians: A Survey of ACRL Members

This study presents the results of a 1981 survey of ACRL personal members in the United States. Through a stratified random-sample model, nationwide and regional levels of collective bargaining activity among academic librarians were determined. As part of the survey, the attitudes of those working under a collective bargaining agreement were compiled. It was found that personal goals benefited the most, while organizational goals benefited the least from collective bargaining. In addition, various factors were analyzed to determine their impact on attitudinal responses. The general result was that the collective bargaining responses demonstrated a remarkable degree of homogeneity.

In recent years collective bargaining has been an issue of much concern among academic librarians. Although the literature is generous in the areas of local or regional studies of collective bargaining and in the philosophical underpinnings of library union activities, there has been no statistically viable nationwide study of collective bargaining for college and university librarians.

The purpose of this article is to determine: (1) to what extent collective bargaining is occurring among academic librarians; (2) the attitude of those librarians involved in collective bargaining toward unionism at their institutions; and (3) the effect of different variables on the respondents.

During the months of February and March 1981, a stratified random sample of personal members in the United States, of the Association of College and Research Libraries (ACRL), was conducted. A survey was mailed to 700 of the members, to which 60.4 percent (423) responded. Stratified by regions of the United States, this return size not only validated the survey but could be interpretative of academic librarians' interest in the topic. The regional breakdown was constructed using models from previous research. Regions are: Northeast: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; Southeast: Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; Southwest: Arizona, Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma, Texas; West: Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming.

In order to ensure a valid statistical analysis of that portion of the ACRL membership which is comprised of college or university librarians, a proportional allocation model was utilized to determine the sample size. The formula used for this purpose is shown in appendix A. The survey instrument itself is reproduced in appendix B.

The degree of collective bargaining occurring among academic librarians is shown in table 1. The data indicate that approximately one-fourth of all college and university librarians are involved in collective bargaining activities. Somewhat surprising is the large
TABLE 1
EXTENT OF COLLECTIVE BARGAINING BY REGION

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Academic Librarians</th>
<th>Number of Collective Bargaining Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N =</td>
<td>N =</td>
</tr>
<tr>
<td>Northeast</td>
<td>98</td>
<td>46</td>
</tr>
<tr>
<td>Southeast</td>
<td>45</td>
<td>18</td>
</tr>
<tr>
<td>Midwest</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>Southwest</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>West</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>298</td>
<td>72</td>
</tr>
</tbody>
</table>

chi-square = 51.5905  \( H_{G|F} | P | P_{0.05} = 9.488 \)
D.F. = 4  \( H_{G|F} | P | P_{0.01} = 13.277 \)

difference in the regional levels of collective bargaining. These levels ranged from almost half of the academic librarians in the Northeast participating in collective bargaining activities (46.94 percent), to values in the Southeast and Southwest so minimal that significant description is precluded. The chi-square test demonstrates that the results are statistically significant at both the .05 and .01 levels, and were not due to chance distribution.

The data also revealed that of those under some form of collective bargaining, 87.5 percent were under the same contract, as were other faculty members on their campus. Conversely, 12.5 percent were represented by their own individual union.

The responses to the third part of the questionnaire, "Section III: Attitudes toward Collective Bargaining," are given in table 2. It is almost axiomatic that individuals join unions to further personal rather than organizational needs, and the results of our survey tend to bear this out. It is not surprising that the questions that received the highest levels in the category "Change for the Better" were, in descending order:

- Question 21: Due process (right to appeal alleged unfair practices)
- Question 16: Salaries
- Question 18: Fringe benefits

Conversely, the questions that received the highest percentage in the category "Change for the Worse" (even though the percentages were not phenomenal) were:

- Question 1: Relationship with library administration
- Question 2: Relationship with campus administration
- Question 6: Quality of library services

These results were somewhat predicted in the literature prior to this survey. Dennis Chamot pointed out that: "Employees, while interested in the health and welfare of the organization, are more immediately concerned with income, working conditions, career development, and job security." Further, it should be noted that the questions with the highest percentage of "Change for the Worse" highlight the fact that collective bargaining tends to bring out or emphasize the adversary relationship between library administrators and library union members; indeed, collective bargaining may become a source of conflict in and of itself.

Generally, the attitude of respondents to the questions in this survey could be stated this way: collective bargaining had either no impact or had bettered the conditions of academic librarians on the campuses where it occurred. Naturally, there was a good deal of difference among individual respondents on the effect of union activity at their particular institution. This variance was reflected in some of the comments requested and received at the end of the survey. Comments varied from one librarian from the Northeast who wrote, "I feel definitely that the presence of a collective bargaining agent with an active concern for librarians is beneficial," to a librarian from the Midwest who said, "Collective bargaining probably is the worst thing that ever happened to this university." Of course, there were also those who felt, like one, that "changes have been all but imperceptible."

The structure of the survey allowed a breakdown of the responses to collective bargaining as measured against several factors. This analysis was carried out on the following variables: sex, the type of academic library, the amount of supervisory duties, and the amount of professional experience that applied to the individual respondent. Generally, in the case of all variables tested, the respondents were remarkably homogeneous. It should be noted that the cases delineated below represent the exceptional rather than the commonplace occurrence. These particular cases all show a statistically significant level of difference as measured by a chi-square test at the .05 level.

As measured by the sex of the respondent, responses to three of the questions showed a
TABLE 2
OVERALL RESPONSES TO COLLECTIVE BARGAINING IN PERCENT (N = 72)

<table>
<thead>
<tr>
<th>Question</th>
<th>Change for the Better</th>
<th>Change for the Worse</th>
<th>No Change</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20.83</td>
<td>13.89</td>
<td>54.17</td>
<td>11.11</td>
</tr>
<tr>
<td>2</td>
<td>31.94</td>
<td>13.89</td>
<td>48.61</td>
<td>5.56</td>
</tr>
<tr>
<td>3</td>
<td>44.44</td>
<td>1.39</td>
<td>47.22</td>
<td>6.94</td>
</tr>
<tr>
<td>4</td>
<td>8.33</td>
<td>1.39</td>
<td>86.11</td>
<td>4.17</td>
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<td>5</td>
<td>4.17</td>
<td>2.78</td>
<td>88.89</td>
<td>4.17</td>
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<tr>
<td>6</td>
<td>15.28</td>
<td>11.11</td>
<td>69.44</td>
<td>4.17</td>
</tr>
<tr>
<td>7</td>
<td>12.50</td>
<td>6.94</td>
<td>73.61</td>
<td>6.94</td>
</tr>
<tr>
<td>8</td>
<td>11.11</td>
<td>8.33</td>
<td>65.28</td>
<td>8.33</td>
</tr>
<tr>
<td>9</td>
<td>20.83</td>
<td>5.56</td>
<td>76.39</td>
<td>6.94</td>
</tr>
<tr>
<td>10</td>
<td>11.11</td>
<td>5.56</td>
<td>63.89</td>
<td>6.94</td>
</tr>
<tr>
<td>11</td>
<td>22.22</td>
<td>6.94</td>
<td>68.06</td>
<td>6.94</td>
</tr>
<tr>
<td>12</td>
<td>16.67</td>
<td>8.33</td>
<td>52.78</td>
<td>5.56</td>
</tr>
<tr>
<td>13</td>
<td>34.72</td>
<td>6.94</td>
<td>55.56</td>
<td>5.56</td>
</tr>
<tr>
<td>14</td>
<td>31.94</td>
<td>6.94</td>
<td>62.50</td>
<td>6.94</td>
</tr>
<tr>
<td>15</td>
<td>23.61</td>
<td>4.17</td>
<td>27.78</td>
<td>5.56</td>
</tr>
<tr>
<td>16</td>
<td>62.50</td>
<td>2.78</td>
<td>48.61</td>
<td>8.33</td>
</tr>
<tr>
<td>17</td>
<td>40.28</td>
<td>1.39</td>
<td>38.89</td>
<td>5.56</td>
</tr>
<tr>
<td>18</td>
<td>54.17</td>
<td>—</td>
<td>50.00</td>
<td>5.56</td>
</tr>
<tr>
<td>19</td>
<td>44.44</td>
<td>—</td>
<td>55.56</td>
<td>4.17</td>
</tr>
<tr>
<td>20</td>
<td>50.56</td>
<td>9.72</td>
<td>55.56</td>
<td>4.17</td>
</tr>
<tr>
<td>21</td>
<td>70.83</td>
<td>1.39</td>
<td>23.61</td>
<td>4.17</td>
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<tr>
<td>22</td>
<td>26.59</td>
<td>1.39</td>
<td>68.06</td>
<td>4.17</td>
</tr>
<tr>
<td>23</td>
<td>20.83</td>
<td>—</td>
<td>75.00</td>
<td>4.17</td>
</tr>
<tr>
<td>24</td>
<td>37.50</td>
<td>—</td>
<td>55.56</td>
<td>6.94</td>
</tr>
</tbody>
</table>

significant degree of variation. They were:

Q8: Budget allocations  chi-square = 11.018
Q9: Personnel allocations  chi-square = 6.516
Q18: Fringe benefits  chi-square = 9.429

$H_0: | P | \geq | P_0 .05 | = D.F. = 2.5 .991$

In the cases of both budget and personnel allocations, more male respondents tended to feel that there had been change for the better, while conversely, more female respondents believed things had changed for the worse. In the instance of fringe benefits, more females than males tended to believe collective bargaining had caused a change for the better.

Measuring the impact of collective bargaining on professional autonomy by both types of academic libraries and by years of experience yielded interesting data. The only question that resulted in any significant variation between expected values for university librarians and those for college librarians was Q15: Professional autonomy (chi-square = 6.819, .05 = 5.991). University librarians tended to think that there had been a much larger degree of change for the worse than college librarians.

The analysis of experience sought to determine if there was a difference between the responses of those librarians with one to fifteen years of professional experience and those with sixteen or more years of experience. Again, the only question that demonstrated a significant difference was Q15 (chi-square = 6.999, .05 = 5.991). More of the younger group of librarians tended to believe there had been a change for the better than did the older group.

The last variable tested was to determine if there was a significant difference between those librarians who did not supervise other professional librarians and those who supervised one or more professional librarians (groups roughly equivalent in size). None of the questions showed a significant variation between these two groups.

On the basis of this national survey of ACRL members, various quantitative conclusions can be drawn. The first of these determinations would be that collective bargaining affects about 25 percent of all college and university librarians in the United States, and that the level of unionization fluctuates greatly depending on the region of the country. The second conclusion was that the majority of those working under collective bargaining contracts were either neutral or positively inclined toward the effects of un-
ionization. It was also shown that the categories that improved the most, according to the respondents, were those of individual benefit to the members (e.g., salaries), whereas the areas that had shown the highest change for the worse were generally of an organizational nature (e.g., library services). The final determination that can be made of this study is that, for the most part, factors such as sex, type of library, supervisory duties, or years of professional experience did not make a significant difference in the responses. No one group benefited more than another from collective bargaining; specific exceptions to this generalization were delineated.

It must be stated that many of the respondents to the survey commented that although they were not presently under any form of collective bargaining, their campuses were in some stage of beginning faculty unionization. Hence, it would behoove the profession to repeat this or a similar study periodically in order to gauge the growth or decline of collective bargaining within the profession.

It was not the purpose of this study to formulate or even attempt to explain the causal rationale of the various data configurations. Whether unionization is good, bad, or indifferent for the profession or its individual members remains a question for others to ponder. This study is merely a step along the path to that collective decision.

REFERENCES


APPENDIX A

\[
\begin{align*}
    n &= \frac{\sum_{i=1}^{5} N_i p_i q_i}{w_i} \\
    N^2 D + \sum_{i=1}^{5} N_i p_i q_i
\end{align*}
\]

where \( D = \frac{B^2}{4} \)

\[ n = \text{overall sample size} \]
\[ N = \text{population size} \]
\[ N_i = \text{strata size in the } i\text{th region} \]
\[ p_i = \text{strata proportion that are college or university librarians in the } i\text{th region} \]
\[ q_i = 1 - p_i \]
\[ w_i = \text{weight factor; percentage of the population given by the } i\text{th region} \]
\[ B = \text{bound on the error of estimation; in this case .05} \]
Since, at the time of the sample, the actual proportion of ACRL members that were college or university librarians was not known, the most conservative estimate was used (i.e., \( p = q = 0.5 \)) to calculate the required number of responses. ACRL members were assigned individual and regional sequential identification numbers, and were selected on the basis of random-number generation.

### DATA CONFIGURATION

<table>
<thead>
<tr>
<th>Region</th>
<th>Population Size</th>
<th>Number Mailed</th>
<th>Number Required Returns</th>
<th>Actual Returns</th>
<th>( w_i )</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>2,540</td>
<td>272</td>
<td>133</td>
<td>146</td>
<td>0.3497</td>
</tr>
<tr>
<td>SE</td>
<td>970</td>
<td>80</td>
<td>51</td>
<td>53</td>
<td>0.1335</td>
</tr>
<tr>
<td>MI</td>
<td>2,061</td>
<td>199</td>
<td>108</td>
<td>122</td>
<td>0.2837</td>
</tr>
<tr>
<td>SW</td>
<td>579</td>
<td>51</td>
<td>31</td>
<td>32</td>
<td>0.0797</td>
</tr>
<tr>
<td>WE</td>
<td>1,114</td>
<td>98</td>
<td>59</td>
<td>70</td>
<td>0.1534</td>
</tr>
<tr>
<td>Total</td>
<td>7,264</td>
<td>700</td>
<td>382</td>
<td>423</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

### APPENDIX B: SURVEY

**SECTION I: BACKGROUND**

1. Please check the appropriate box. Are you a:
   - Two year college librarian
   - Special librarian
   - Four year college librarian
   - Library school student
   - University librarian
   - Library school faculty
   - Public librarian
   - Retired librarian
   - Other (please specify) __________________________ _

2. Are you:  
   - Female  
   - Male

If you are not a college or university librarian you need not go further; please return this survey in the enclosed envelope.

3. Please check all appropriate box(es) of educational degrees obtained:
   - B.A. or B.S.
   - Specialist degree (library science)
   - Masters (library science)
   - Specialist degree (nonlibrary science)
   - Masters (nonlibrary science)
   - Ph.D. (library science)
   - Ph.D. (nonlibrary science)
   - J.D.
   - Other (please specify) __________________________ _

4. How many years have you been a professional librarian? ________

5. How many professional positions have you held? ________

6. How many years have you been at your present location? ________

7. Do you have "faculty rank" (defined as having the privileges of faculty, but without the ability for tenure) at your present location?  
   - yes  
   - no

8. Do you have "faculty status" (defined as having the privileges of faculty, including tenure) at your present location?  
   - yes  
   - no

9. Do you supervise other professional librarians at your present location?  
   - yes  
   - no

   If yes, How many professional librarians do you supervise? ________

**SECTION II: COLLECTIVE BARGAINING**

1. Is it true that faculty collective bargaining is a fact on your campus?  
   - yes  
   - no

2. Are librarians included in the faculty bargaining unit(s)?  
   - yes  
   - no

3. If librarians are not included in the faculty bargaining unit(s), are librarians represented by other bargaining units?  
   - yes  
   - no

4. If librarians are represented for collective bargaining purposes, are library administrators represented by the same bargaining units?  
   - yes  
   - no

**SECTION III: ATTITUDES TOWARD COLLECTIVE BARGAINING**

With regard to the effects of collective bargaining on the status of academic librarians on your campus, please mark the below categories with the following numerals:

- Change for the better = 1
- Change for the worse = 2
- No change = 3
1. Relationship with library administration
2. Relationship with campus administration
3. Relationship with the faculty
4. Relationship with the students
5. Relationship with the public
6. Quality of library services
7. Quality of library collections
8. Budget allocations
9. Personnel allocations
10. Selection of clericals and paraprofessionals
11. Selection of librarians
12. Selection of library administrators
13. Participation in policy determination
14. Participation in decision making in general
15. Professional autonomy
16. Salaries
17. Tenure
18. Fringe benefits
19. Leaves and vacations
20. Promotion
21. Due process (right to appeal alleged unfair practices)
22. Work schedules
23. Length of workday
24. Number of days in work year

Please feel free to include any comments you may have to any of the above categories in the following space and * the item indicated.

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Edited by Michael D. Kathman, College of St. Benedict and St. John's University and Virgil F. Massman, James J. Hill. Reference Library

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Gardener's Song (continued)

He thought he saw a Bandicoot Clark Descending from the bus -
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"If this should go to dine," he said, "There won't be much for us!"

An excerpt from Lewis Carroll's "Gardener's Song," 1887.

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Evaluating Periodicals

The literature of periodical evaluation discusses many criteria for judging the usefulness of individual periodicals to a particular library. The most important factors are subject relevance, usage, general availability, accessibility (indexing coverage), cost, format, publisher reputation, and citation frequency. Depending on the needs of the individual library, the language of the journal may also be important. All of these factors are naturally interdependent, but they can still be grouped in ways that will make them more coherent and easier to manage.

The Central State University Library serves a student population of 8,000-9,000 with a collection of approximately 600,000 books and 4,000-5,000 current periodical subscriptions. The periodicals collection occupies the third floor of the library and offers open access. Back files are not bound but are purchased in microform and shelved with the current issues. Escalating costs prompted this study to determine not only which individual titles could be canceled most easily, but also a collection development system that would ensure the most effective collection with whatever funds are available.

In managing a serials or periodical collection, it is essential to know precisely which titles are most important to the library and which would not really be missed very much if cancellations become necessary. One way of designating the relative value of periodicals uses cost/benefit ratios. These figures can be determined simply by dividing the cost of the journal by its use, or it can be computed through a more complex mathematical formula involving all possible factors. Something in between is probably more desirable, because managing the information about all factors may be very time-consuming and itself not cost-efficient. Also, it must be noted that we are only indicating relative importance; a certain amount of subjectivity is inherent in evaluation processes. It should also be emphasized that evaluation procedures and the information derived from them are aids to management. The process should be helpful in limiting the number and types of decisions necessary.

Donald Kraft and Richard Polacsek developed a formula that, with the proper grouping of factors, can be used to develop a simple yet carefully structured evaluation system. The system developed at the Central State University Library serves a student population of 8,000-9,000 with a collection of approximately 600,000 books and 4,000-5,000 current periodical subscriptions. The periodicals collection occupies the third floor of the library and offers open access. Back files are not bound but are purchased in microform and shelved with the current issues. Escalating costs prompted this study to determine not only which individual titles could be canceled most easily, but also a collection development system that would ensure the most effective collection with whatever funds are available.
University Library draws on this formula and employs the following structure: the cost/benefit ratio for each paid title is equal to the cost of that journal divided by the relative worth of that journal \( r = C/W \), as in Kraft and Polasek). \( W \) is equal to the weighted sum of other important factors: (1) relevance, which is again subdivided into accessibility, subject relevance, and format/journal reputation; (2) usage; and (3) availability, subdivided into microform availability, completeness within the library, and in-state availability. The only factor eliminated from the original list is citation frequency. At this point citation statistics are rather difficult to ascertain and maintain. For those who can manage this information, it could easily be attached to the format/journal reputation factor in the equation. Weights are an inherently subjective standard, which should be determined by the periodicals or serials librarian or an evaluation committee. At CSU, the factors are weighted as follows:

1. Relevance. Since this factor is intended to be the theoretical measure of a journal’s usefulness, we weighted it most heavily (.7), thus ensuring that a standard field of materials will be available for subjects appropriate to the university. Subdivisions are weighted by varying the size of the scales applied during the evaluation process. The scales applied at the CSU Library are:

   A. Accessibility (Indexing): if the title is indexed, it is given five points; if not, zero. Intermediate points could be assigned if differentiation between indexing services is desired.

   B. Subject Relevance: points are assigned on a scale of 0–10, 10 being those journals most important to a subject area. The library maintains the collection of general interest and “alternative” publications, which are assigned points on the same scale according to their importance to the collection.

   C. Format: points are given on the scale 1–3, 3 being the best format of the “best” publisher. No journal can be assigned 0 on this factor. Relevance then equals the sum of all points assigned.

2. Usage. This factor can be tabulated two ways: points can be assigned relative to the number of uses/time period (we have chosen one year), for example, 0–10 uses/year = 0 points, 11–25 = 1 point, 26–50 = 2 points, etc., or the usage figure can be tabulated “straight.” If the usage figures are not used straight, this factor should be weighted more heavily to ensure a broad range of comparison. At CSU, the weight assigned may seem small (.2), but because the usage figures are tabulated directly, this factor assumes a very important role in the differentiation of important and unimportant titles. Maintaining the relevant statistics for this factor may be a problem for some libraries. Only a closed periodicals section will provide truly accurate figures. However, a strategy devised at Case Western Reserve University\(^2\) can be adapted for most collections, perhaps even those that interfile books and periodicals. At Central State University, periodicals are housed on the same floor in an open collection shelved alphabetically by title. Microfilm back files are kept on special shelves with the current issues, so that the entire holdings of a title are openly available together. Use statistics are maintained by placing stickers on shelves during the reshelving procedure. Though admittedly not exact because of those users who choose to ignore the “please do not reshelve materials” signs, these statistics are still sufficient measures of relative importance. Also, the effects of whatever margins of error exist are lessened by using the “straight” figures. If the use figure indicates a journal was used 28 times during the year while it was actually used 31 (or 25), the effect on the overall formula will be very small, though it would still be sufficiently differentiated from other journals which were used 0–5, or 75–100 or more times. It should again be emphasized that the whole evaluation procedure serves merely to indicate relative importance. Use statistics as well as all other factors should be kept in that perspective.

3. Availability. This factor is not as important as the others in determining the hypothetical importance of a journal and so should be weighted smaller than the previous factors (the CSU weight is .1). It can help provide fine distinctions between titles that are close in every other aspect. As in the relevance factor, subdivisions are awarded points according to their importance. Because the CSU Library has a large microform collection, the availability of a title in microform is of more importance than the other divisions. Points (5 at CSU) can be awarded if
it is available (or if storage costs are low for a title in libraries without microforms); 0, if it is not (or if storage costs are high). Whether or not the library has the complete holdings of a title may be of some importance, if a decision for or against cancellation must be made. It might be more difficult to cancel the subscription of a title if the library already owns the complete run. Points (1 at CSU) can be awarded for complete holdings; 0 points, for incomplete. Finally, if a title is available to the user in another library nearby, that title may not be as necessary to the holdings of the library, but it may be much more important if it is the only subscription in the state. This factor should only be used in libraries that can equitably cooperate with surrounding libraries or where comprehensive systems of cooperation have been established. Otherwise, that other library might just cancel its subscription, too. Points can be awarded if the title is not immediately available; 0, if it is available nearby. The whole availability factor may not be important to many libraries. If it is not worth maintaining the necessary information, this factor could be eliminated without detrimental effects to the overall evaluation system. The other factors are much more important, but this factor might help make the decision if two titles are virtually alike, even down to 0 uses, and one must be canceled to meet the budget.

So, the worth of a journal is equal to a weight times the relevance, plus a weight times the use statistic per year, plus a weight times the availability.* At Central State University the equation looks like this: \( W_j = .7R + .2U + .1A \), where the relevance \( R \) = indexing points + subject relevance points + format points, usage \( U \) = the number of uses per year, and the availability \( A \) = microform points + holdings points (other library status is ignored at this time). Evaluation cards are made for each paid title including all of the appropriate information for that title.

The cost/benefit ratio \( r_j = C_j/W_j \) can be helpful in determining the relative importance of periodical titles (the smaller the number, the greater the importance). At CSU, the list of current holdings is divided by subject (or academic department) and then ranked with most important at the top and least important at the bottom.

It might be easy to presume that this number is the objective fact of a journal’s importance. This assumption might be especially tempting if the librarian is confronted by the obstinate patron who demands to know why “his” or “her” journal was canceled two years ago. But the system is only developed to highlight the information and data relevant to what the library sees as the most important criteria for judgment. Knowledgeable decisions can then be made with more confidence.

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The primary thesis of this book argues for "a teaching-learning strategy that emphasizes student-centered, heuristic activity." From that premise, the author expands on the development of the debate of theory versus practice in library education, and then goes on to describe alternative teaching-learning processes that could be used to help resolve the continuing dilemma.

The book begins with a description of the evaluation of professional education in the context of the university milieu. There is a brief description of professional education in medicine, engineering, law, social work, and teaching. The balance of theory and practice in these curricula is shown as being present and as being desirable.

A description of the development of library education and the debate concerning the inclusion of theory and/or practice in the curriculum follows. There are restatements of the effects of the studies by Williamson and Reece and of the later developments and opinions concerning the professionalization of library education. The more recent thrust has been to develop a body of theory to complement the prior reliance on practice. The value of "field work" or "practice work" continues to be of interest. The years of debate on theory versus practice have not produced a resolution. According to Morehead, there is a need to return to the early theoreticians to find alternatives to practice or field work, which can then be incorporated into the teaching-learning process.

The modes of instruction that are delineated include face-to-face instruction and independent study. The various applications include class presentations, problems, observations, projects, and laboratory work.

The library-centered library school is based on Patricia B. Knapp's work at Montteith College on library-centered teaching. From this concept a logical next step is "a specialized library which could function as the locus of the teaching-learning process." For library education, the specialized library is the library science library. Learning strategies that are discussed are the critical incident theory and the Dewey inquiry model. In seeking a resolution of the theory-practice dilemma, it will be necessary for library educators to try new methodologies even if there are risks, in hopes of finding a better way of educating today's students.

To devise a conceptual structure for a specific need is never easy, particularly when there is no unifying theory. However, to inte-
grate theory and practice there is a need for a learning environment such as a working library, which becomes, in essence, the laboratory. This model would allow the interrelationship of theory and practice. Freedom, relevance, and discovery are the elements seen as necessary to provide the methodology of integrating theory and practice into the teaching-learning process.

This volume brings together most if not all of the arguments pertaining to the discussion of theory versus practice in library education, and in that sense serves a useful function. The bibliography and references are extensive and add depth to the work.

There are also, unfortunately, some aspects of the book that detract from its strengths. The text is laborious to read, primarily because of the extensive use of hyperbole and a vocabulary that does not lend itself to readability. The other shortcoming is the lack of analytical assessment of the material that has been gathered. The material is presented in a straightforward way, but few conclusions are drawn from the available information. The final conclusion that is put forward is perhaps too simplistic: freedom, relevance, and discovery will reconcile theory and practice in the teaching-learning process. The expectation of an actual theory or model to address the question was not met.—Irene B. Hoadley, Texas A&M University, College Station, Texas.


Raynard C. Swank’s distinguished career in American librarianship included service as a director of two research libraries, as an association executive, and as a library school dean. Swank received his doctorate from the Graduate Library School at the University of Chicago in 1944. After several years as director of the University of Oregon library, he moved to Stanford, where he directed the Stanford University Libraries from 1948 to
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1962. From 1962 to 1970 he served as dean of the School of Librarianship at the University of California, Berkeley. He took a leave from Stanford in 1959 to head the American Library Association's Office of International Relations.

Editor David Heron, head of readers services at the Hoover Institution, Stanford University, selected the fourteen essays. Heron describes himself as an "apprentice" of Swank, for whom he worked for five years at Stanford. Heron's preface, like the foreword by Lawrence Clark Powell, who was university librarian at UCLA, and the appreciation by J. Periam Danton, who preceded Swank as dean of the Berkeley School of Librarianship, are charming combinations of personal reminiscences and brief biographical sketches.

Swank's fourteen essays cover the thirty years from 1944 to 1974. The first, an article published in Library Quarterly, is based upon Swank's dissertation. It coherently discusses various points of view about the adequacy of bibliographic access in subject catalogs, classifications, and bibliographies. At a time when we are planning "user friendly" automated catalogs, the article is worth re-reading.

The final article, published in California Librarian in 1974, is Swank's edited version of a speech he presented in 1973. Swank spoke to the California librarians at a time, not unlike the present, when the prospect of federal and state support for libraries seemed to be diminishing. Swank's call to librarians to continue to press for their cooperative goals rather than to sink into "excessive parochial commitment" is relevant today.

Six of the remaining twelve essays are from the fifties—Swank's Stanford years. They include a talk given to an audiovisual conference in which he expresses his interest in media. Heron also includes three essays on international matters from Swank's years in the ALA Office of International Relations, and one essay about the changes in library school curriculum, in which Swank was involved during his years as dean at Berkeley.

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brarianship and the range of his interests and activities is impressive. In the preface, Heron states that the "essays reflect some of the ways in which he (Swank) has changed libraries and librarianship, some of his most important professional accomplishments." Heron, unfortunately, does not include a bibliography of Swank's writings, nor does Heron attempt to assess Swank's achievements.

The years from the Depression to the mid-seventies were years of increasingly rapid change. As we have become involved in change—especially in technology-based change—it may be that we have failed to learn from our past—especially our recent past. Swank's essays, interesting in themselves, may form a portion of the material from which a significant and fascinating history can be written.—Elaine Sloan, Indiana University, Bloomington.


In the preface to this volume, the editors state: "The purpose of this volume . . . is to provide . . . high quality state of the art reviews of thought and research in three areas of emphasis: (1) information, information transfer, and information systems; (2) the uses and effects of communications; (3) the control and regulating of communication and information" (p.vii). This is a very big net. A reviewer can only stand (sit? read?) in awe at the broad display of erudition in these nine essays: artificial intelligence, social cognition, children's television, computer conferencing, television soap operas, and information science, to name but a few topics. Yet if the communication/information arena is to be a field of study, even a discipline, then a volume such as this begins the necessary exploration of its dimensions. A reviewer in limited space can only take a hop, skip, and a jump through the collection, commenting on a few of the essays and pointing at others.

The first essay in the volume is "Social Cognition, Self-Awareness, and Interpersonal..."
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Communication" by C. R. Berger and M. E. Roloff. They skillfully defend the position that "under certain circumstances certain kinds of persons do engage in considerable thinking activity prior to, during, and after social interactions with others" (p.4). John Bowes' thoughtful piece "Mass Utilization of Information Technology" may help to dispel glib notions of social progress through information technology: "If gaps are to be closed between information rich and poor, the capabilities of these systems must cause improvement among the poor at an appreciably greater rate than among the rich" (p.68). This piece should be read in conjunction with Ronald Rice's "Computer Conferencing."

Brenda Dervin's well-written paper, "Communication Gaps and Inequities: Moving toward a Reconceptualization" is concerned with the exploration of two "gaps": those "seen by observers between . . . message receivers and the hoped-for-impacts of those messages"; and those "seen by receivers between the pictures they now have in their heads and the sense they require" to cope with their problems (p.105). This reviewer has already used William Paisley's essay "Information and Work" for a graduate seminar. It is a masterful summary of a huge field, and suffers principally because the topic is so big. It needs at least two good-sized volumes.

James Grunig's "Communication of Scientific Information to Non-Scientists" pulls together several disparate areas of science communication research into a single domain. Karen Levitan's essay "Applying a Holistic Framework to Synthesize Information Science Research" argues, from the general systems point of view, for a synthesis of research about "scientific disciplines as information user systems" (p.264), and away from the fragmentation of reductionist thinking.

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a structured outline, a brief table of contents, and followed by an extensive bibliography. This reviewer will return to these essays many times for clarification, leads, explanations, ideas, and especially for the organization of a topic.—Robert S. Taylor, School of Information Studies, Syracuse University, Syracuse, New York.

ABSTRACTS

The following abstracts are based on those prepared by the ERIC Clearinghouse of Information Resources, School of Education, Syracuse University.

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The statistics that are presented are based on a 1 percent systematic sample of the OCLC online union catalog as of January 1980. Detailed data were collected on the use of fields, subfields, indicators in bibliographic records, and on the co-occurrence of fields within bibliographic records. The sample used for the study was obtained by extracting all records with an OCLC control number ending in 44. For each category of this report, the statistics are grouped by format: monographs, serials, audiovisuals, sound recordings, music scores, maps, manuscripts, and cumulative bibliographic files. These statistics should be useful for estimating file growth, selecting subsets of records for local catalogs, and for designing bibliographic record databases.


Analysis of data collected from 3,000 academic libraries by the 1977 Library General Information Surveys reveals that library operating budgets, institutional enrollment, and library circulation are the best predictors of reference and directional transactions. Fifty-five percent of the transactions at reference service points are directional, while the remainder are reference transactions; university libraries report significantly higher numbers of transactions than either four-year or two-year colleges, and publicly controlled colleges report greater numbers than private institutions. Similarly, reference and directional transactions vary with the total operating budget, collection and staff size, and enrollment. The picture is complicated, however, by intervariable relationships, e.g., university libraries tend to have larger operating budgets, staff, and collections. Under these conditions, regression analysis is a better procedure to predict the number of reference and directional transactions.

Intended to aid fellow department chairpersons in developing adequate library resources and to suggest ways of motivating departments in their use, this paper proffers suggestions based on the author's experience as a librarian and academic department chairman. It is suggested that (1) guidelines established by the library profession and accrediting agencies can be useful in establishing standards for the acquisition of materials for curriculum collections; (2) available selection aids include book reviews, publishers' advertisements, author reputations, and the professional judgment of the chairperson augmented by opinions of the library staff or faculty committee; (3) central library collections appear to offer more advantages for faculty than department libraries; (4) the chairperson should encourage and develop faculty and student usage of library resources; and (5) graduate trained librarians can assist the chairperson by acting as information brokers between collections and the department through library instruction and workshops, or through course-related or subject-specific library instruction directly connected with the department curriculum. The chairperson is encouraged to initiate such activities as a means of enhancing the quality of departmental instruction.

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