Project: Knowledge 2000

Project: Knowledge 2000, a conference organized by the National Science Foundation, was a unique event as well as an experiment. This was the first time that the foundation, essentially a grant-awarding agency, assumed the responsibility for creating and executing a program that it had originated. It was an attempt to discover, if possible, the knowledge needs and requirements for the country in the next twenty-five years — by the year 2001. Knowledge was defined in the broadest sense: as information organized so as to influence decision-making and to improve the decision-making process.

The conference was held in the new, $60 million Xerox facility in Leesburg, Virginia, which serves as a training center for their management, sales and service personnel. It houses the most up-to-date closed-circuit television facilities in the world. This fact proved to be very advantageous in that two of the primary products for the Knowledge 2000 project were video cassettes and video tapes which were to be used in the place of print products as discussion guides.

Between 125 and 150 people were assembled for the project. Although it was expected that there would be a high degree of interaction, it was generally accepted that the reasons for attending the conference would vary: (1) conferences break the normal routine; (2) they provide a locale to renew old friendships, make new friends and socialize (and it is my guess that more communication occurs in the social sphere than in the formal professional one); and (3) conferences provide exposure, however brief, to
some new ideas. It is a very secure feeling to be able to return home with one's briefcase full of papers that may never be read.

For this project, we broke away from the usual format for such conferences. A panel of four persons met in the television studio daily and addressed the particular topic of the day. Each panelist had some specialization in the particular field. The first forum, held in January 1976, considered the need for knowledge, largely in terms of research material; another forum, held in June 1976, discussed the communication of knowledge. Each person related his/her topic both to the needs of the next twenty-five years and to what could be anticipated.

In addition to the four people in the television studio, six team rooms were set aside in which relatively discrete generic (if you will pardon the expression) groups of people were assembled: (1) people from the academic community; (2) administrators and professionals; (3) the knowledge industry representatives, e.g., from McGraw-Hill and Time-Life — people whose job it is to communicate various kinds of knowledge; (4) federal government personnel; (5) state and local government personnel, including legislative and judicial persons; and (6) the public advocacy or public interest group, made up primarily of representatives from the League of Women Voters, Common Cause, etc. For the first hour, the panel in the television studio would address a particular topic. After a break, team representatives (not team leaders) would reconvene with the four panelists to discuss various points of view that had been generated in the team rooms.

As expected, there were some failures and some successes. One failure concerned the process itself. Immediate conflict arose in distinguishing between panel members and team members; everyone wanted to be on television. We also observed something I believe to be illustrative of our society: this group of decision-makers, representative of various sectors of society, continually talked past each other, did not listen to what others had to say, digested little of what was said, and each busily prepared his/her agenda while someone else was talking. This factor provided many insights into the problem of communication.

Possibly the worst problem was the high level of frustration — the result of the many ideas generated at the conference. It was difficult to grasp and retain any one idea for more than a few minutes, because the next idea demanded attention before the first could be noted on paper. It seems that this frustration was generated not only by the amount of material, but by the fact that television is still largely a mechanism projecting only in a superficial way. Diligent effort will be required before television can be used for in-depth communication of material. This may be attributed, in part, to the
transition from a print to a video culture, and circumstances may therefore change in the future.

Some of the ideas generated at the conference may not be new to you. Gabriel Almond, a political scientist at Stanford University, spoke about two kinds of movements in society: cyclical and noncyclical (i.e. moving along a spectrum from a sacred to a secular society). From Almond's point of view, the cyclical movement is event-related. A recent example of cyclical movement would be the Great Depression of the 1930s, during which, as part of the cycle, people were psychologically depressed as well as economically depressed. Watergate, however, is considered a noncyclical movement, and thus may be dismissed (according to this view) because such movements are somewhat ephemeral.

The noncyclical movement — the spectrum conventionally used by sociologists to indicate the movement from a sacred to a secular society — appears to be much more important. In a sacred society, religion and family are the traditional vehicles of indoctrination and socialization. In the past, both institutional and individual roles have been ascribed by religion and family; each was assumed to play a particular role. Almond believes that as we move toward secular societies, communication and education play more important roles than either religion or family in the socialization or indoctrination of children. This concept is applicable to libraries and other institutions in our complex society. As we approach the secular society, the emphasis on communication, performance and legitimacy will become a factor of crucial importance. In other words, institutions that do not perform will not be considered legitimate, and such organizations (e.g., American Red Cross, Boy Scouts of America, and libraries) will no longer hold their place in society unless they can perform. It is thus not what has been done for me in the past but what can be done for me now that will be important.

Project discussion groups believed that certain types of knowledge were needed. First, it was believed that most of the knowledge needed in the next twenty-five years would be largely nontechnological, or intuitive. How can intuitive knowledge be enhanced? A surprising amount of the discussion dealt with intuitive knowledge — how to reach it, treat it, use it. I suspect that intuitive knowledge is taken for granted much more than it should be.

Another recurrent theme of the sessions concerned how to obtain knowledge that would increase public participation. What kind of knowledge is needed to make institutions self-corrective? At issue again is the self-corrective concept, the search for knowledge to empower the powerless — a most difficult kind of redistribution process.

We need to have some knowledge about the incentives necessary to use
the present information systems available. What are those incentives? Don
Michael, affiliated with the Center for Research and the Utilization of
Knowledge at the University of Michigan, asserted that it is simply not true
that created knowledge will be used knowledge. Any librarian at the smallest
branch library in America knows this. The major problem appears to be how
to create situations in which knowledge will be used. The public will not
necessarily beat a path to the door of the person who builds a better mouse-
trap.

Robert Hoffman, a professor of the Wilson School of Public Affairs,
made what might be considered an indictment of our society when he ex-
pressed concern about the burden being placed on knowledge, i.e. that few
societies have been given the “state of knowledge” we have. Upon reflection,
this is a terribly important consideration — that we do give such weight to
the operation of our society and the distribution and utilization of that knowl-
edge. We are forced to ask: Are we doing as well as we can?

One of the participants in the project, Doug Cater talked about the
future of communications. He went through many tapes generated at the
project looking for things that had to do with information systems and with
communication in particular. Because it is of possible relevance for librarians,
I will relate one point that he raised which I have no way of substantiating,
but which seems to ring true. The Aspen Institute, of which Cater is the
director, is in Menlo Park, California, and its staff works with Stanford re-
search personnel. One Stanford demographer estimated that over one-half
of our labor force is currently involved with the manipulation of symbols or
words. This is a significant number of people, and among them, librarians
are the Madison Avenue word-pushers. Because the process of manipulating
symbols and words requires little consumption of energy and raw materials,
there may be no limit to the heights to which these processes might go. The
point that Cater was trying to make is that conceivably 95-98 percent of
our GNP could be employed in this passing of symbols within the next few
decades.

Cater also spoke of the need to correct some trends. One with which I
am sure you can all identify is the ever-increasing rate of the growth of tech-
nology; of particular concern, because of the economics of it, is the trend
toward its concentration, whether in multinational corporations or in govern-
ment. In other words, the economics of scale makes it relatively easy to have
large concentrations of technology, which has some inherent danger. Control,
for instance, comes from the fact that knowledge is power. It has a tendency
to create its own hierarchies within (or outside of) which people work.

Another point that was made during the discussion was that in the field
of communications, the consumer usually does not pay for the cost of the
product. Books are probably the least subsidized form of communication; when you buy a book, you are generally paying for the cost of that book. You do not, however, pay for the cost of a television show, because those costs are subsidized in various ways.

There was discussion about the information outlaw and two different forms of improper use of information. In the old computerized information systems, the information outlaw could use illegally obtained information that was not leased for use. The other form, which I think has various connotations, is the antisocial effect of communications. One example is gratuitous violence, what we know as violence for its own sake, such as that found on television. The point here is that it is one thing for people to go to the theater and pay to see violence, but it is quite another thing to have violence beamed into one's house. At some point the information outlaw becomes truly antisocial in his use of things created for a totally different purpose.

Another discussion point that was raised centered around the ownership of knowledge and the role of teletypewriters, computers, xerography, etc. The use of copyright is becoming obsolete. It may well be that events in the field will be accelerating at such a rapid rate that the new copyright legislation may be outdated by the time it is enacted and implemented. I suppose, however, that some sort of technological metering is needed as a copyright control against people who take the things that have been generated illegally. It was suggested as part of this concentration syndrome that we should strive to obtain more producers or packagers of knowledge; this idea would have relevance for libraries. I will not attempt to pursue this further, because the matter is linked to the problem of reaching the outer limits to which an advertising economy can subsidize communication systems.

Another topic raised was a concept that originated with Willis Harmon of the Stanford Research Institute. Harmon refers to dilemmas for which there are no right answers. I will discuss just one of these dilemmas. Industrialized societies face a growth dilemma; industrialized society needs continued growth for a viable economy. It becomes more and more clear, however, that society cannot tolerate that growth in terms of environmental regulation, energy and material shortage. Given the impact on the life support systems of the deteriorating ozone layer, we are replacing human physical labor with energy-consuming machines. Where does it stop? There does not appear to be a clear answer.

Harmon made the point that our contemporary society is tied into jobs and employment. There are only three kinds of legitimate societal roles: (1) those people who have a job, (2) those people who are married to people who have a job, and (3) those people who are educating themselves to get a job. This is an interesting concept to consider in the sense that neither the
elderly nor the young have a legitimate role — and the uneducated certainly do not. Thus, the question essentially becomes: If we have only three kinds of legitimate societal roles, and if our industrialized society continues to produce more and consequently to employ fewer people, what will the long-term effect be? The following story gives an example of an astounding statistic which I believe is an index of this problem. You may be aware that the Pepsi-Cola Corporation made a business deal with the Soviet government to sell Pepsi in the USSR in exchange for their sale of Russian vodka in the United States. The first of five Pepsi-Cola plants opened in the Soviet Union and produces 60 million colas every year with only 85 employees. I think it is ironic that these figures come from the Soviet Union, but this will become increasingly common as new plants with comparable advancements replace some of our own older plants.

The paradigm shift has been discussed here frequently, but I suspect that no one has spent too much time on it. It is somewhat abstract, but I believe that one thing we should be aware of is that a value shift is occurring — and I do not think that we will value efficiency in the future as much as we have in the past. I think that we will be doing things and creating jobs that are not as efficient in order to give people things to do. I do not know how much longer productivity can continue to be the name of the game.

A topic continually raised by all the groups in Project: Knowledge 2000 was the issue of values, i.e. the role of values in the decision-making process. I wonder if it would have been nearly as intensive a subject a few years ago. I think there has been a consciousness-raising process in the whole area of values — what they are, how we use them, how we acquire them, how we discard them. In terms of the paradigm shift, part of the prediction deals with this value-shift of assumptions. There is a new analogy which might be useful in thinking about this approach to paradigm-shift. Ten years ago, earthquakes were thought to be discrete, isolated, upward thrusts of the earth’s crust in order to relieve some pressure. As long as this was the overriding assumption (which is essentially what a paradigm is — a perspective or assumption), i.e. that the earth worked in a random, upward-thrust way, no one could seem to understand how or why earthquakes occurred. As a result of research performed largely by NSF grant recipients, the field of plate tectonics has been discovered. This discovery, in a sense, did away with the old paradigm and created a new one. It states that large plates move laterally, and in the course of doing so have an upward as well as a downward thrust. By plotting these movements around the world, two significant conclusions have been reached: (1) the historically important continental drift theory is confirmed; and (2) plate tectonics enables prediction not only of where earthquakes will occur, but when. As assumptions become
reinforced through thinking and sharing ideas, we produce a new set of assumptions which permit us to look at the old activities in new ways and thus allow greater insight into this particular kind of earth mechanics. I will not discuss the paradigm shift further, but this example serves as an analogy to the makeup of this shift.

Finally, I would like to make some points which are responsive to the fact that we live in a period of extensive, rapid change. What are some of the things we can do, particularly as affiliates of institutions? First, solutions should be viewed as temporary and continuously open to amendment. That may sound very simple, but is often terribly difficult because we have a way of setting things in concrete once we begin instituting solutions. If we can view solutions as temporary while we are instituting them, however, we have taken a long step. Secondly, decisions should be made which are flexible enough to be useful and productive in more than one social configuration. We should also experiment with innovations that provide the mechanics around which broader courses may mobilize and which, at the same time, legitimatize failure (which has not been a distinctive part of our society).

JOHN P. MCDONALD
Director of University Libraries
University of Connecticut
Storrs, Connecticut

Response

I have been much taken with the high quality of word play at this conference. “Paradigm Lost” is sheer genius, as is George Bonn’s “Foresight Saga.” A story occurred to me as a result of all this talk about the future; it concerns the futurist writers. Some time ago, the crime writers of America got together and decided that they needed a motto. After they brainstormed
awhile, they coined the phrase “Crime doesn’t pay . . . enough.” This phrase so successfully insinuated the need for better remuneration for crime writers that the science fiction writers became envious and decided that they, too, needed a motto. They put their heads together and decided on: “The future isn’t what it used to be.”

My participation in these sessions has convinced me that this particular line, “the future isn’t what it used to be,” is becoming more and more apt. We have all been trying to see what the future holds, and I am afraid that most of us are not quite sure that it is what we once imagined or hoped it would be. I have been told that Arthur Miller in his new play has used the line, “For Americans the past is a rumor.” There is probably a counterpart saying dealing with the future, but I leave it to you to invent.

I want to begin my remarks with a disclaimer. My comments here are bound to be quite disjointed and may not always deal directly with what Lynn Carroll has said. I only met Carroll last night and just read an outline of his talk at breakfast. I made copious notes as he talked, and I hope that my remarks will relate to what he has said. It seems to me that his presentation forms a useful bridge among the various discussions that have taken place thus far.

We have heard much about technology, and Carroll has illustrated how technology has been used to display ideas. I think, however, we do want to get back to ideas. We should, if possible, try to see how the many ideas we have heard relate to the alleged theme of this session: the humanities, use of leisure time, and morals. I do not think that any of us is ever very comfortable in dealing with moral and ethical issues. I certainly am not, and do not plan to say much about them, but I will try to work them in as I go along.

One of the thoughts that occurred to me about libraries and the humanities is that much of the technology that has been and is being developed for libraries seems to be better able to serve the needs of science and technology than of the humanities and the social sciences. I am not quite sure what the implications of this may be, but I am a bit worried about it. One example of this phenomenon is that, for years, we have been devoting a growing percentage of our acquisitions funds to periodical literature, and particularly to journals in science and technology. A lesser portion of the budget has been allocated to other fields; consequently, a diminishing amount of money has been allocated for monographs and other materials that serve the more bookish fields of history, philosophy and the humanities. Where this trend will end, I am not certain, but I think we may have supported the sciences in university libraries for many years at the expense of the humanities.

Jesse Shera once wrote an article entitled “How Much is a Physicist’s Inertia Worth?” He wrote about the expense of maintaining and providing
departmental libraries to accommodate the physicist who had only to walk down the hall to get the literature he needed, in contrast to the historians and the humanists, who had to use the central library to find their resources. I think that this concern about how we spend our money — our institution's money — is analogous to that earlier argument about centralization and decentralization. Although people like Hugh Atkinson tell us that arguments about centralization or decentralization of library resources will be irrelevant in the new electronic future, we still have much money to spend now for materials in academic libraries. We must be more careful and understand how we are spending our funds and why. We need to find ways to involve more people in the process, i.e. more people than are currently involved.

Kenneth Thompson talked about the necessity of finding better ways to integrate research and teaching. We have heard echoes of this idea in subsequent presentations at this conference. As I think about the future of universities and of their libraries, it seems possible that the research capacities of universities may be oriented differently in the future than they have been in the immediate past. In many universities, for instance, the number of unemployable Ph.D.s is already forcing the curtailment of doctoral programs. A recent issue of *Chronicle of Higher Education* indicated that Louisiana had joined New York State in ending a number of doctoral programs.\(^2\) One result of this kind of policy may be that university-sponsored research will be increasingly undertaken not by graduate students and faculty members, but by postdoctoral fellows and research specialists. Without graduate students to carry part of the teaching load, there will be a major shift in the lifestyle of universities. This may in turn result in some redistribution of funds that university libraries expend for instructional versus research materials.

I would like to comment, too, on some other educational trends. The trend in this country toward universal higher education may mean that most of our people will soon be "degreed." When this occurs, the emphasis will inevitably shift toward in-service training. Indeed, it is already apparent that there is a bullish market in continuing education with implications for libraries that are only now beginning to be understood. Academic libraries are not presently organized for outreach services, but they should investigate alliances with public libraries and other agencies in order to overcome obstacles to the effective delivery of library and information services to off-campus students and groups. This possibility has been mentioned, but it has also been suggested that competition may develop among different types of libraries. That is a luxury we cannot afford. What is needed is cooperation between academic libraries, which may in some cases have the necessary resources, and public libraries, which in most cases have the necessary staff skills and experience to meet these new community needs.
Another problem that libraries may be expected to address is the integration of research and teaching. As a nation we have rightly paid attention to research, but we have not paid comparable attention to the process of diffusion. Carroll has told us how much money the National Science Foundation spends on research, and I think we should ask the complementary question of how this research reaches society and produces whatever benefits might flow from it. The knowledge gained from research has not always been disseminated in the most useful forms. The mere preparation of research reports is not sufficient. Better ways must be found to bring the benefits of research to society, and at this point libraries may find themselves in an altered role. Obviously, some techniques that have been demonstrated and discussed here may play an important part in the future. How can these newly-created tools be used by libraries to meet very heavy mass needs? It seems clear to me that the whole process of the creation and distribution of scholarly knowledge is currently subject to tremendous strain, and it also seems inevitable that great changes will soon alter the ways in which information is produced and disseminated.

In that connection, some comments about Sherwood’s presentation of the PLATO system seem appropriate. I might note here that last week, partly in preparation for this session and partly at the insistence of one of my colleagues at the University of Connecticut, I went to the university’s Health Center in Farmington — forty miles away from the main campus — to learn what is being done with computer-assisted instruction. Among other things, a number of PLATO terminals are being used by the students in the medical and dental schools. After seeing Sherwood’s demonstration, I have a few thoughts on this. (Incidentally, I decided to summon up a lesson on PLATO to see what I could do with it; I did not do well.) The power and promise of PLATO and other interactive media are impressive, but I see some possible problems of equity in their use. Just as the major share of our investment in abstracting and indexing services and on-line bibliographical systems has been devoted to the literature of science and technology, so, I suspect, will the principal efforts to provide courseware for interactive systems be devoted to scientific and technical fields. I do not mean to revive the “two cultures” argument, but I feel that the “have-not” disciplines (history and the other humanities) and, to a lesser extent, the social sciences will not soon share proportionately the benefits that these systems offer.

Another problem may occur with the development of courseware for these systems. It seems clear that the fashioning of effective courses should not be left entirely to the entrepreneurs. Talented faculty members must be involved along with those who have the graphic and visual skills to help make the teacher’s knowledge come alive. A dilemma arises for the college and
university teacher who takes time to assist in producing good courseware, however. The academic reward system, at least at present, does not place a high premium on such activity. "Publish or perish" is still a way of life, and despite evidence of change, the college professor will still find it safer to work on a book or article than on interactive courses, if he or she is seeking promotion or tenure. This could change and probably should, but until it does it may be a serious barrier to the creation and availability of a wide range of effective courseware. Of course, Brong knows more about this than I do, but it is an observation I felt should be made here.

There have been a number of references throughout the conference to copyright and the effect of copyright on the software used in interactive systems. It is by no means certain that the new copyright law is clear about this question. The fact that the law is not clear may be inferred from the establishment of the Commission on the New Technological Uses of Copyrighted Works which will grapple with some of the implications of these techniques. I think it is important to bear in mind that the new copyright law does not go into effect until January 1978, so we have some time to prepare for future fallout. It has been suggested that there might be a road-show on copyright implications, which will be good as long as all of the constituencies are adequately represented.

The particular copyright arguments going on between publishers and authors on the one hand and libraries on the other is really a conflict between two goods. Copyright is clearly necessary and beneficial to the creation of new knowledge, or to the provision of an incentive for the creation of it; however, copyright was designed to promote the dissemination of new knowledge, and librarians who have been arguing for freedom of access to information had hoped to achieve it without undue penalty to those who created the knowledge. The authors and publishers have very skillfully manipulated the argument and made it appear that libraries were participating in a big ripoff of starving authors and poets and depriving them of their livelihood. The fact of the matter is that nobody buys poetry except libraries, and libraries by and large do not photocopy it. Libraries photocopy quite different things — scientific and technical articles, for example. A good case can be made for generous photocopying rights when: (1) an article has been produced as a result of government-sponsored research; (2) an article is published through a subsidy in the form of page charges from a grant-making agency; and (3) the motive of the author is to disseminate the results of this research and not to gain profit from royalties (indeed, he probably doesn't even hold the copyright; the journal publisher does). Thus, it was ludicrous when publishers gathered people like Art Buchwald, Irving Stone, Barbara Tuchman, and Kurt Vonnegut (all millionaires) at a legis-
lative reception, and then tried to convince Congress that authors are suffering and that librarians are responsible. What is most interesting to me is that it didn’t work. All the power and influence of these people—who have access to the media—was not sufficient to persuade Congress to pass a law which would seriously inhibit the public’s access to information. The voices of librarians, and of the societies and the associations to which they belong, finally prevailed, and in the eleventh hour secured a compromise bill from the House subcommittee dealing with copyright. I think that it is a credit to librarianship and to our democratic system.

During the copyright debate I was executive director of the Association of Research Libraries in Washington, D.C., and I wrote a letter to Senator McClellan that I hoped would have some effect on the Senate subcommittee that was dealing with copyright. The letter did not actually make any points with the Senate, but one of the things I said in it touches on the question of pay libraries. There is a real policy issue here about information. Carroll alluded to knowledge power, and information is unquestionably equivalent to power. That is the idea I tried to convey to Senator McClellan in my letter:

In our technological society there can be no doubt that information is the equivalent of power—economic power, political power, and intellectual power. Information is the essence of education and it is as desirable that the citizens of this country have free access to information through a healthy and unencumbered system of libraries as it is that each person have access to a good education at public expense. But information, like education, is costly, and not every citizen is equally able to afford it. It is crucial therefore that information be viewed as a national resource to be used for the benefit of all and not as a commodity to be sold to the highest bidder. To repeat, there is a public interest in information and that interest must be preserved and safeguarded from those who would profit from every citizen’s natural desire to enjoy the economic, political and social benefits that information can bestow.

I would like to comment on another topic discussed at this conference. Given the tendency of any organization or bureaucracy to adhere to the status quo, do librarians do much, if anything, to effect change? I believe that they can, and in academic libraries, for instance, there are literally dozens of examples to prove it. As executive director of the Association of Research Libraries, I worked closely with the Office of University Library Management Studies administered by the association. That office is supported by a Council on Library Resources grant. One of the principal achievements of that office was the development and application of the Management, Re-
view and Analysis Program (MRAP), presently being applied in more than twenty large research libraries. MRAP is a guided self-study technique for evaluating and exploring management practices at all levels, and for bringing about constructive change based upon the findings of the self-study. Management practices at all levels, from the director down to the departmental level, are examined. Every policy is scrutinized; committee structure is studied, and communications systems are tested. Staff at all levels are involved in the process and the resulting changes ensure future staff participation in decision-making, particularly those decisions which affect staff members directly and personally. MRAP has been fully described in the literature, and it is hoped that the knowledge that has been gained from the application of this program in large libraries can be modified and used in smaller libraries. The process was applied and implemented, among other places, at the University of Connecticut libraries. It seems to me that the results, at least in our situation, have been extremely fruitful. The staff believe that change can be brought about partly through their own efforts, and therefore they want some access to decision-making. Staff members have an increasing sense of self-worth, and one of the greatest benefits, as I see it, is the surprising strengths which are revealed once people are permitted to assert themselves. Unless this kind of change takes place in libraries, people will be pigeonholed and categorized and their qualities may never be appreciated, understood or utilized.

In the debate about leisure time and its uses in our society, it seems that there are a number of countervailing forces. Although workweeks are apparently shorter for many people, there is a growing tendency among this same group to use newly available time for moonlighting. This may in part be a response to the economic situation, including the effects of inflation, but it may also be a response to the uncertainty of how to use available time—or it might simply be disenchantment with the nature of many leisure-time activities. On the other hand, many professionals and administrators seem to have less leisure time rather than more. Academic people, who are believed to have a soft life with vast stretches of time for deep thought, seem rather to be busier than ever, so much so that they may not now be doing enough thinking of any kind, deep or otherwise.

A third observation has to do with what I think is a somewhat new spirit among young people, born perhaps of student activism (even though it no longer takes the same form). I am speaking here of involvement—sometimes real commitment, but often just healthy activity of one kind or another. Consumer advocacy, political involvement, environmental awareness, outdoor activities such as backpacking and bicycling rather than spec-
tator sports—all of these and more seem to be responses to additional leisure time. This might be called constructive leisure and seems to be a positive new element.

Kenneth Thompson brought up what appears to be the makings of a substantial debate on the subject of morals and ethics, i.e. whether they can or should be taught in universities. He mentioned Paul Freund, and I noticed that in the latest issue of Change magazine, Derek Bok, the president of Harvard, has written an article entitled “Can Ethics be Taught?” In short, Bok joins Freund in supporting the notion that morals and ethics can be taught in universities, and he very clearly feels that they should be. Bok concludes his article as follows—and I will make this the end of my presentation:

But is the effort [to teach ethics] worth making? I firmly believe that it is. Even if courses in applied ethics turned out to have no effect whatsoever on the moral development of our students, they would still make a contribution. There is value to be gained from any course that forces students to think carefully and rigorously about complex human problems. The growth of such courses will also encourage professors to give more systematic study and thought to a wide range of contemporary moral issues. Now that society is expressing greater concern about ethics in the professions and in public life, work of this kind is badly needed, for it is surprising how little serious, informed writing has been devoted even to such pervasive moral issues as lying and deception. But beyond these advantages, one must certainly hope that courses on ethical problems will affect the lives and thought of students. We cannot be certain of the impact these courses will have. But certainty has never been the criterion for educational decisions. Every professor knows that much of the information conveyed in the classroom will soon be forgotten. The willingness to continue teaching rests on an act of faith that students will retain a useful conceptual framework, a helpful approach to the subject, a valuable method of analysis, or some other intangible residue of intellectual value. Much the same is true of courses on ethical problems. Although the point is still unproved, it does seem plausible to suppose that the students in these courses will become more alert in perceiving ethical issues, more aware of the reasons underlying moral principles, and more equipped to reason carefully in applying these principles to concrete cases. Will they behave more ethically? We may never know. But surely the experiment is worth trying, for the goal has never been more important to the quality of the society in which we live.9
This is a trend. It is one that will deeply affect libraries of all types, and it is one that we should all watch and observe carefully.

REFERENCES