



UNIVERSITY OF MINNESOTA

University Senate Consultative Committee  
210G Burton Hall  
178 Pillsbury Drive S.E.  
Minneapolis, Minnesota 55455  
Telephone (612)373-3226

SENATE CONSULTATIVE COMMITTEE MEETING  
AND  
DISCUSSION WITH THE PRESIDENT

April 4, 1985  
12:45 - 3:00  
Regents' Room, Morrill Hall

Approximate  
time

AGENDA

- 12:45 1. Minutes of March 14 (enclosed).
2. Reports:
- A. Student SCC Chair
  - B. SCC Chair
  - C. Senate Finance Committee
  - D. Self-Study Committee.
- 12:55 3. Senate and Assembly:
- A. Approval of Senate/Assembly meeting schedule for 1985-86 (enclosed). Choice required between two February dates.
  - B. Senate and Assembly agenda for April 18 (to be distributed at April 4 meeting).
- 1:00 4. Creating a Senate Committee on Information Systems: Preliminary discussion with guests from other Senate committees. (Three enclosures: Wolfe memorandum, Quie memorandum, and excerpt from SCEP report.)
- 1:15 5. Steps to take for improving governance.
- DISCUSSION WITH PRESIDENT KELLER
- 1:30 6. President's items.



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MINUTES  
SENATE CONSULTATIVE COMMITTEE MEETING  
AND  
DISCUSSION WITH THE PRESIDENT

APPROVED 4/18/85

April 4, 1985  
Regents' Room, Morrill Hall  
1:00 - 3:05

Members present: Cathy Birk, Shirley Clark, Beth Emanuelson, Charles Farrell, Phyllis Freier, Sue Gruenes, Joseph Latterell, Douglas Melby, Cleon Melsa, Jack Merwin (Chair), Irwin Rubenstein, Paul Schulte, David Shope, Frank Sorauf, Deon Stuthman, Wesley B. Sundquist, Bruce Williams.

Guests: President Keller, Vice Presidents Kegler and Murthy, John Aune (Daily), John Chipman, Jacque Jodl, F. Gerald Kline, Maureen Smith.

1. The minutes of the March 14 meeting were approved with the addition of Douglas Melby to the list of members present.

The agenda was then rearranged to accommodate guests' schedules.

2. Reports.

A. Student SCC. Mr. Melby.

- The SSCC will travel to Waseca, completing its round of visits this year to each of the coordinate campuses. SCC member Sue Gruenes has been elected Waseca student body president.

- The constitutional amendments regarding the Student Senate will be brought to the May Senate meeting instead of the April meeting.

- The poll among students on quarters vs. semesters showed a two to one preference for the quarter system.

- MSA Forum on this date will elect next year's Twin Cities student members to the Consultative Committee.

B. SCC Chair. Professor Merwin.

(1) Survey on sexual harassment.

Last spring the University Senate approved policies and procedures for dealing with sexual harassment; included in the motion was a resolution to study sexual harassment at the University of Minnesota. Professor Richard Purple, who chairs the Review Panel on Sexual Harassment, has reported to Professor Merwin that it has determined the kind of study it believes should be undertaken, and

seeks the SCC's approval of certain aspects. The Review Panel would like Mr. Darwin Hendel, a research associate in the Office of Academic Affairs, to be given the title, for the purpose of this one project, of "Researcher of the Senate." Central Administration has indicated its willingness to transfer \$40,000 from the Office of Equal Opportunity and Affirmative Action to the Senate. The Review Panel believes that the cost of a proper study would be higher than that and that they could succeed in raising supplementary funds in the private sector. The Panel believes it highly important to gaining good cooperation and a high rate of returns on the survey that it be conducted under the auspices of the Senate rather than of the administration.

Following brief discussion regarding how one elicits factual information regarding the problem, Professor Sorauf moved the SCC endorse the special title and the funds transfer. The motion carried with no dissenting votes. (NOTE: This vote was rescinded later in the meeting. See page 5 below.)

(The Consultative Committee interrupted the reports at this point to take up the item on a new computer committee at the time for which it had been scheduled.)

3. Creating a Committee on Computers and Other Information Systems. Guests: Professor Kline, Chair, Educational Policy Committee; Professor Chipman, Chair, Library Committee.

(The Educational Policy Committee and Assistant Vice President Wolfe each had independently written requests for the creation of some such new committee in the Senate. The Committee on Committees had asked for further guidance from Educational Policy and Consultative before proceeding.)

Professor Merwin asked SCC to consider who ought to be involved in establishing the new committee.

Professor Kline explained that computing issues come to SCEP (in whose charge they have been since the elimination of the Computer Services Committee during Senate reorganization in 1980). But, except for momentary crises, those issues do not surface in a very concrete way, and SCEP has an extensive agenda otherwise. Early in 1982, noticing the lack of attention to instructional computing, SCEP constituted a subcommittee for that subject, chaired by Lael Gatewood. SCEP adopted the subcommittee's report in the fall of 1984 and informally forwarded it to Academic Affairs and, more recently, to Dr. Wolfe.

SCEP's preference in present circumstances is for the establishment of a computer committee within the Senate in parallel with the Library Committee, rather than forming a committee which combines the charges in both those related areas. SCEP is apprehensive, said Professor Kline, that because computer services are charged for, while library services are free, moves which combine the two might erode free use of libraries. In fact, SCEP's starting position is that computer services should be free as well.

The new committee's domain should include instructional computing. SCEP is ambivalent about which other parts, if any, of the University's information systems (e.g., telecommunications) should be included.

Professor Chipman voiced his wholehearted support of the SCEP proposal. Then, regarding library automation, he announced that three demonstration teams would show their systems on campus in the week of April 8. The Library Committee, he said, would welcome faculty comment on the relative merits of the systems.

Professor Stuthman suggested considering the model of the Senate Finance Committee for a computer committee's composition (including both at-large members and members drawn from certain appropriate other Senate committees). He favored asking Committee on Committees to try to keep ex officio membership to a minimum, and recommended the committee report to the Senate through SCEP as do, for example, the Library and Research committees.

Professor Rubenstein remarked that one should not impede some eventual merger of the committees if closer integration develops between libraries, computers, and other information systems. Professor Kline said SCEP did not want to preclude a merger; but it did not want to overwhelm the Library Committee by adding the computerization area.

There was general agreement the new committee should report through SCEP. Professor Merwin asked Professor Kline to put the question before the Educational Policy Committee as soon as arrangements can be made for Dr. Wolfe and Professor Chipman to attend one of the meetings, and then to report to the SCC on progress.

Professor Kline acknowledged Professor Freier's point that Dr. Wolfe probably needs an advisory committee with which she can meet frequently, as needed, to respond to day-to-day needs. But, he added, a Senate committee can aid in setting the policy undergirdings. SCEP wants faculty to take the lead in setting policy, he said, but not to control implementation.

#### SCC DISCUSSION WITH PRESIDENT KELLER

4. President Keller joined the meeting for a short time at 1:40. He had hoped to discuss with SCC the Commitment to Focus, but instead felt pressed to report on the threatening rumors from the legislature and the ironies they convey.

Legislators have voiced much support for the Commitment to Focus and asked what they can do to help, the president reported. The state has a very large budget surplus. When the state had a severe deficit, the University took its share and more in retrenchments. Yet now, in the legislature's rush to cut taxes, the University is threatened. The House Appropriations Subcommittee on Higher Education is talking about a basic 0% increase, predicated upon a definition of inflation as zero. Certain budgeting and accounting technicalities would bring the University an increase of \$28 million over the biennium.

President Keller reminded the meeting that the University's request had been for a \$190 million increase, that the governor had recommended \$132 million, and that the University's standstill needs were \$100 million. He emphasized how strongly he felt that the legislative inclination, if carried out, would be an abandonment of higher education in the state of Minnesota. Among the consequences would be the University's inability to provide faculty salary increases, tuition relief, funding for engineering at UMD, deficit relief for Men's Intercollegiate Athletics incurred from subsidizing the Women's program, the planned level of support for computers, and would mean reductions for Agriculture, Supplies and Equipment, and computers. It would be a "retrenchment budget." The mood at the capital, he commented, seems to ignore the investment which higher education represents: the legislature would be putting money back in people's pockets and taking it away from their futures. There is no sector

of the University and of higher education in the state, he said, that would not be hurt. It's "putting us in contention for mediocrity," he continued.

The University will write to a number of groups it thinks can help. He asked rhetorically, "If, in a time of surplus we cannot support higher education, when on earth can we?"

When students inquired what student lobbyists could do to help, the president said the most helpful activity is for students and their parents to write their legislators.

Mr. Melby asked what the consequences would be in terms of tuition if the appropriation were minimal. President Keller said the administration had not done those calculations yet nor determined what parts of the University would have to take the greatest sacrifices. The University still wants to be able to hold a tuition increase to 5½%.

The president said he would talk soon with the Consultative Committee about what the next steps should be in consulting regarding the Commitment to Focus. President Keller and Vice Presidents Kegler and Murthy left the meeting at this point.

(The Consultative Committee returned to the point where it had interrupted the agenda.)

2. B. Report of the Chair, continued.

(3) The April 18 schedule includes a 2:15 Senate forum on Semesters vs. Quarters, followed by a Senate and then an Assembly meeting. The SCC agreed to advance its meeting of that date to run from 11:00 to 2:00.

The Educational Policy and Planning Committee chairmen will try to identify two opening speakers for the forum. Vice President Robinett will attend to answer questions and has offered the use of slides if they are wanted. The results of the MSA survey should be available as a hand-out.

(4) The Faculty Consultative Committee has identified a Medical School faculty member Professor Merwin will call to seek his willingness to be nominated to serve as vice chairman of the Assembly and Senate. That position includes ex officio voting membership of the Consultative Committee. Professor Freier spoke to the wisdom of including a Medical School faculty member on the committee, and Professor Stuthman noted the person elected must be a current senator. Professor Merwin will keep Mr. Melby informed.

C. Senate Finance Committee. Professor Stuthman.

At its March 14th meeting, the Finance Committee (1) received information from Assistant Vice President Wolfe regarding instructional computing and current computer availability for faculty and students, and (2) heard an update on retrenchment plans and got copies of a printed schedule showing what proportions of its dues each unit has paid. Today Finance will discuss what should be done if the resources are not available to fund the standstill budget: which high priority items should get some attention, and how much each should get.

D. Pre-Accreditation Site Visit Self-Study Committee. Professor Rubenstein.

The Committee is eliciting comments on research, graduate education, and

and planning at the University. Its first focus session went very well and the next one will be specifically for junior faculty. In response to a comment, Professor Rubenstein said participants had stressed the need for support services; they regarded support as low and also library resources as inadequate -- even though the faculty has been told that the special acquisitions budget caught University libraries collections up to where they should be.

5. Proposal for Amendment to Senate Constitution (addition to agenda).

In the interest of making it more possible for the Twin Cities student body president to sit on the Consultative Committee, Ms. Emanuelson proposed an amendment that would make that officer an ex officio, non-voting member of the Senate. Such a provision would give the MSA Forum the opportunity to select this person to be a student SCC member from the Twin Cities Campus. (A student must be a Senator to be eligible to run for the SCC.)

Professor Merwin asked Ms. Emanuelson to put her proposal in writing, seek the opinion of the Business and Rules Committee, and bring the proposal to the next SCC meeting.

6. Approval of the Senate and Assembly meeting schedules for 1985-86.

The Consultative Committee recommended February 20 over February 6 for the Winter Quarter meeting, and approved the other dates as suggested by the Clerk of the Senate: November 14, April 17, and (Senate only) May 15.

7. Agenda items for the April 18 Senate and Assembly meetings. Copies were distributed.

The Senate Committee on Faculty Affairs is bringing a motion that a faculty referendum be held and show at least a 60% majority favoring a semester system for such a change to be undertaken. Several SCC members voiced their opposition to the nature of the motion, both because it calls for the Senate to abdicate its legislative role and because it calls for an extraordinary majority.

FCC members would prefer to see the vote conducted in the Faculty Senate instead of by referendum. Professor Merwin will forward this view to Professor Clayton, SCFA chairman, and ask him to request the committee to consider changing its motion.

2.B.1. Survey on sexual harassment. (Return to earlier discussion.)

Professor Clark told that meeting that, in light of what the committee had just learned from the president, this must be considered a time of austerity for the University. \$40,000 to \$75,000 then becomes a lot of money to devote to a study on sexual harassment at the University of Minnesota. Something significant, she asserted, could be done on a smaller scale and the rest of the funds could be saved for other important purposes. The SCC members generally indicated their agreement with this view and asked Professor Merwin to communicate it to Professor Purple.

Professor Stuthman recommended SCC rescind its earlier action and lay the issue over to at least its next meeting, by which time the committee would need to have a better sense of what the Review Panel believes will be learned from

the study and how that will be used. Professor Purple should be invited to join that meeting.

Professor Clark moved the Stuthman recommendation be adopted. The motion carried without dissent.

8. Interviews with finalists for the position of Director of the Office of Equal Opportunity and Affirmative Action. All members were encouraged to come to as many of the interviews as they can even if they cannot attend all four.

9. Governance. SCC members set a special meeting date to address this agenda item alone: Friday, April 26, 1:15 to 3:00.

Professor Freier distinguished two issues and asked which one FCC and SCC are trying to improve: effectiveness of input to central administration in its decision-making, and the apparent workings of the Senate and its committees.

Professor Clark commented that neither the Consultative Committee nor the Committee on Committees give much help to the actual functioning of the committees of the Senate and Assembly. Many committees have a hard time getting started in the fall and some don't meet before Christmas. If SCC could organize an early fall retreat for chairs, it would help them get started early in the academic year. SCC should try to help committees with the hard task of setting an agenda.

Announcement: Professor Sundquist reminded those present of a workshop on Internationalizing the University, to be held April 12-13 at the Wilder Conference Center.

The meeting was adjourned at 3:05 p.m.

Respectfully submitted,

Meredith Poppele,  
Executive Assistant

university  
of  
minnesota  
memo

Date March 27, 1985  
To Senate Consultative Committee  
From Meredith  
Subject Meeting finalists for the position of Director  
of the Office of Equal Opportunity and  
Affirmative Action.

SCC is one of three groups President Keller hopes will interview, separately, each of the finalists for the OEO directorship. (The other groups are the vice presidents and the deans.)

The meetings will probably be scheduled for the week of April 8-12. I will let you know times and places just as soon as possible, and will send each candidate's vitae if available.



4/3/85

SCC interviews with the finalists for the position of Director of the Office of Equal Opportunity are scheduled for the following times:

- April 10 (Wednesday) 1:30 p.m.
- April 15 (Monday) 1:30 p.m.
- April 16 (Tuesday) 1:30 p.m.
- April 18 (Thursday) 10:00 a.m.

Unless you hear otherwise, all the interviews will be held in the Regents' Room.

mbp



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March 27, 1985

To: Professors Chipman, Kline, Quie, Sullivan  
From: Meredith Poppele, Executive Assistant, Senate Consultative Committee  
Subject: Creating a Senate committee on computers and other information systems

Professor Jack Merwin, SCC Chairman, has asked me to invite you to join the Consultative Committee in the Regents Room on April 4, from approximately 1:00 to 1:15, for a preliminary discussion on designing a new Senate committee on information systems.

Four items are enclosed, even where redundant: the SCC April 4 agenda, Assistant Vice President Wolfe's memorandum requesting a new committee, Dr. Quie's letter asking for SCEP and SCC review of the request and referring to SCEP's present charge relating to computers, and an excerpt from a SCEP report requesting a new committee.

If you are unable to attend on the 4th, please don't hesitate to call Jack Merwin at 373-1329 to report your current thinking on how to proceed and what to keep in mind.



UNIVERSITY OF MINNESOTA  
TWIN CITIES

Office of Academic Affairs  
Assistant Vice President for Information Systems  
143 Shepherd Laboratories  
100 Union Street S.E.  
Minneapolis, Minnesota 55455

(612) 373-9750  
January 25, 1985

TO: Jack Merwin

FROM: Barbara B. Wolfe

A handwritten signature in cursive script that reads "Barbara Wolfe".

SUBJECT: Senate Committee on Information Systems

Faculty consultation seems to be desirable in establishing policies for instructional, research, and administrative computing and for the new developments on campus for telecommunications and local area networks. Consequently, I think it might be reasonable to establish a Senate Committee on Information Systems, a title that not only reflects my title but also signifies the integration of computing and communications.

In our telephone conversation, you suggested that such a committee be established first as a subcommittee of the Educational Policy Committee. I leave it to you to further suggest procedures for establishing what I have described in the format of the "University Senate Constitution, Bylaws, and Rules". Please advise as soon as possible, keeping in mind my recent arrival on the campus. Thank you so much.

### **Information Systems**

The Information Systems Committee represents faculty and student interests in the information systems of the University. These encompass the application of computing and telecommunications technology to the educational, research, and public service missions of the University.

## **Recommended Membership**

The Information Systems Committee shall be composed of eight faculty members, one graduate student, one undergraduate student and ex officio representation by the Assistant Vice President for Information Systems, by the Director of University Computing Services, and by the Director of Telecommunications. Members shall be appointed by the Committee on Committees with approval of the Senate in consultation with the Assistant Vice President for Information Systems.

## **Duties and Responsibilities**

- \* To recommend policies to the Senate for the acquisition and use of computing and telecommunications technology in the instructional, research, and administrative programs of the University.
- \* To advise the Assistant Vice President for Information Systems and other heads of university computing and telecommunications services.
- \* To evaluate University-wide computing and telecommunications resources and services.
- \* To supply a coordinated voice of the faculty concerning levels of funding and related services for information systems technology.
- \* To submit an annual report to the Senate through the Educational Policy Committee.

BW/rf



UNIVERSITY OF MINNESOTA

Office of the Clerk of the Senate  
424 Morrill Hall  
100 Church Street S.E.  
Minneapolis, Minnesota 55455  
(612) 373-2125

March 11, 1985

Professor Jack Merwin  
Chair, Senate Consultative Committee  
College of Education  
210E Burton Hall

Dear Professor Merwin:

At our February 27 meeting Committee on Committees had an opportunity to discuss the request that a committee on information systems be established within our Senate structure. It was the consensus of our committee that before any decision be made both the Consultative and Educational Policy Committees should review the request. We are concerned about the impact the establishment of this new committee might have on the Library Committee in view of the fact that one of the responsibilities of the Information Systems Committee would be to make policy recommendations on data-base systems which are clearly becoming more a responsibility of the libraries.

In addition, it appeared that Article III. 1. B. of the Senate Bylaws, which reads "to advise the University Senate on policy matters related to both the research and instructional uses of computers" already charges SCEP with these tasks.

We would appreciate your consideration of this matter and will await your reply.

Sincerely,

Professor Paul Quie  
Chair, Committee on Committees

:mk

D R A F T M E M O

TO: Dr. Kenneth Keller

FROM: Senate Committee on Educational Policy

SUBJECT: Computers and Other Information Technologies

The Senate Committee on Educational Policy has several duties and responsibilities, which include "advise the University Senate on policy matters related to both the research and instructional uses of computers". Previously the administrators responsible for the University policy have been the Special Assistant to the Vice President for Academic Affairs, responsible for both computers and libraries, and the Director of University Computer Services. Under the leadership of Dr. Peter Roll and Dr. Frank Verbrugge respectively, the University has developed instructional timesharing for the University and the entire State of Minnesota, provided large-scale computers for advanced research, and introduced microcomputers for academic purposes such as computer-assisted-instruction (CAI).

Now, however, since Dr. Verbrugge's retirement last year, many faculty and students have perceived an erosion of support from the University Computer Center, a lack of direction concerning computer services, and diminished national stature regarding new computer resources. Currently we are seeing tremendous technical and social changes affecting the entire environment of automation and information management. This has the potential to greatly increase our effectiveness and thus productivity as a faculty. We need planning and coordination to absorb this change and to realize the full implications of technology for information management.

In the past few years, two major groups have reviewed plans and progress related to computers and information technologies, and have issued substantive reports. The Committee on Computation, Communication and Information (CCI) chaired by Professor Carl Adams made a number of important recommendations to President McGrath in March 1982. These centered around the need for increased support for computation, and the provision of an office for computers, communication and information directed by an associate vice president. The Task Force on Information Processing Management chaired by Professor Thomas Scott reported to you in June 1983 its recommendation that the Library School be replaced by a new program in information studies. Both reports have many far-reaching implications which are discussed below. Since many of the recommendations are still to be implemented, we would like to call your attention to these and related issues. We are concerned about the effect of current planning on the future resources of the University, and thus have added several recommendations on the part of this Committee as well.

1. The search for a new Assistant Vice President for Computers and Communication was delayed while an administrative structure could be found to ground a new organization. This position was advertised as reporting to the Vice Presidents for Academic Affairs and for Finance, as initially recommended by the Adams Committee. Reporting to two Vice Presidents may have its bureaucratic and logistic problems. The recent search announcement for the new Vice President for Planning and Academic Support may have modified this in part, since this new Vice Presidential position appears to have been assigned responsibility for both computers and libraries. These vitally needed resources for research and instruction should remain tied to the academic programs, rather than becoming services which exist separately.

RECOMMENDATION: We support the second organizational structure, since it appears to maintain responsibility for computers and libraries in a single office with an academic

orientation.

2. The All-University Advisory Committee for University Computer Services was disbanded the previous academic year. Previously this committee was formed mainly of computer center directors and large users, thus overseeing the technology, but without broad-based representation from the faculty and students. Special subcommittees which often involved affected users were formed in response to need. One of these, the Timesharing Subcommittee, reconstituted itself briefly during the year to try to provide a "forum for input from instructors and administrators into instructional computing resources and policies for the University". However its membership was again made up of those who direct Computer Centers and Instructional Laboratories on the Twin Cities, Morris and Duluth campuses.

RECOMMENDATION: A Senate-based Computer Committee similar to the Senate Library Committee should be formed, which could review the policies of the all-University computer resources and help plan for the future. This committee should be broadly constituted to include faculty, students and staff.

3. "Deep Discount" contracts have been signed with numerous vendors to provide microcomputers for purchase by students, instructors, researchers and departments. This action tends to persuade users that these systems are supported by the University, and only looks at the first part of the need for computers, namely the equipment and some software. As discussed by the Adams Committee, disregarded are the following requirements for user training, system maintenance, and eventual linkage to other University computers. 1) User Services must be available to answer questions and help new users for every system for which there is to be a "deep discount". 2) Supplies and manuals must be available through a knowledgeable support group, such as the Computer Store provided in the past. 3) A mechanism for computer maintenance must be developed and supplied centrally to obtain economies of scale. 4) Enough computers of each type must be bought and made available, probably through the existing Instructional Computer Laboratories and/or the Learning Resource Centers, for students who cannot afford to buy or maintain their own microcomputer. 5) Specifications must be developed which will help establish communications with the varied campus computer systems. 6) Faculty training must be initiated and funded centrally, if the computers are to be used in support of classroom instruction. All of this is far more expensive than the original discounts obtained, and requires central funding to realize the benefits of the new technology.

RECOMMENDATION: An Advisory Committee should be looking at the long-range implications of the discount policy, and developing recommendations for identifying and funding the additional resources needed.

4. Computer usage is currently charged through many types of mechanisms. In addition to direct charges for instructional and research computing, there are indirect charges which affect students. These include the student service fee at Duluth which pays for new equipment purchase and maintenance, the dorm rent which helps to provide facilities in the dormitories, and the access card which must be purchased for CAI and microcomputer use in some departments. This latter appears to be a usage fee, which is contrary to the Regent's policy. All of these charges should to be examined to assure equity of access, monitoring of utilization and knowledgeable subsidy of direct instructional use where required.

RECOMMENDATION: The entire costs and mechanisms of support of instructional computing need to be examined. Policies regarding charging and subsidies must be explicitly outlined for students, faculty and administrators so that planning for these costs can take place.

5. Currently there are more than twenty introductory credit and non-credit courses in computers and programming, which are offered through a number of different units. More

courses are being developed, especially through the aid of Educational Development Grants. Some coordination mechanism may be necessary, both to develop the literacy and liberal arts requirements which may require computing skills, and to examine whether there is an expensive redundancy inherent in the present offerings. Further explication of the undergraduate and graduate requirements for computer skills would help focus the need for competency-based instruction which could be taught across academic units. In addition, these courses could help to upgrade faculty knowledge and skills regarding computing, a necessity for developing instructional tools.

**RECOMMENDATION:** A survey of present computer-related courses should be made available to faculty and students.

6. Learning Resource Centers are scattered throughout the campuses, and some are currently providing computer-assisted-instruction (CAI) in support of classroom instruction. The BioMedical Library has developed an excellent model of integration of computer and library resources with its Health Sciences Learning Resource Center, which houses the Instructional Computing Laboratory for the Health Sciences. This model, which provides both library and computer functions in support of instruction and research, would be a desirable one to emulate in the future.

**RECOMMENDATION:** A survey should be made of the current Learning Resource Centers and their mechanisms of support. An attempt should be made to tie together or at least catalog all departmental and/or collegiate resources which support instruction and research.

7. As we plan for the next decade, it is appropriate that libraries continue an intimate association with computing. Libraries have been using advanced technology for information management for many years, and University Libraries are proceeding with their own plans for automation. Our libraries provide access to data bases both within and between institutions and nationally, and it is natural to expect that this access will be available from user computer terminals in the future. Some campus libraries have been associated with the development of Learning Resource Centers, where CAI has joined the other print and non-print resources. Finally libraries understand the concept of service for both instruction and research, and mechanisms for support of the library resource could serve as a model for computing resources as well.

**RECOMMENDATION:** We support the sequestering of control for both libraries and computers in the new Vice President's office. It is hoped that this will not erode the academic mission of either of these two resources.

8. The move from centralized computer resources to decentralized ones that are managed at the departmental or unit level is a difficult one because of the problems involved. Departments that bought minicomputers through project or grant assistance found that they were able to finance the original purchase but were unable to maintain the facility. Those that are buying microcomputers are now finding that they have only financed the tip of the iceberg, namely the inexpensive hardware and minimal software. At this point, departments often turn to central administration for support, for a facility which had been originally unanticipated, unplanned, and uncoordinated.

**RECOMMENDATION:** Guidelines are necessary which state the types of funding needed for departmental computers and individual work stations, the specifications which help tie the remote facility into central computers, and the possibility for outside support.

10. In addition to their computer needs for research and instruction, departments should also be using computers to support office automation and data base management. This would help to provide word processing for faculty and student researchers. There are many stand-alone and turnkey computer systems offered for these purposes, but the department



usually has little knowledge with which to evaluate each offering. It would be most useful if these departmental systems could tie into the central administrative data bases and help to provide communications between individuals, departments and the community outside of the University.

RECOMMENDATION: Technical guidelines would help evaluate resources which may eventually be used for centralized management functions.

11. Many computer networks are being established within and between academic institutions to enable the community of investigators and instructors to communicate with one another. Electronic mail, teleconferencing, and automated bulletin boards have been successfully implemented at many other universities. The new communications service being contracted at the present time (even before the new Assistant Vice President for Computers and Communication is appointed) must have the present and future capacity to enable this type of networking. It's not clear whether the present specifications enable the type of communications presently supported at other universities as far as computer linkage is concerned. The ten-year usage projections seem inadequate, given today's microcomputer environment and need to access external data bases and communication services.

RECOMMENDATION: A more up-to-date survey should be conducted to determine current and future communication requirements of the computer users on the Twin Cities campuses.

\* \* \* \* \*

It is important that the University provide sufficient levels of computer support, as well as appropriate and adequate capacity at each level. Many of the faculty and students have been disappointed with the discussion with the Governor and the Legislators concerning supercomputer resources, at a time when they could not realize the potential of computers at the micro or minicomputer level. There has been a tendency to respond to external pressures, to install resources for computer graphics, computer assisted design/manufacturing (CAD/CAM), and large scale computing. Still not available, however, are better statistical packages, data base management programs, CAI development facilities, etc., which are needed by a majority of faculty and students. In addition there are many needs for standardized microcomputer software which would tie into these central resources, but provide off-line use to the collegiate units. These would be far more supportive of classroom instruction and course management than the super resources projected for advanced academic, governmental and industrial research. The advisory group recommended above, with representation from faculty, students and staff, would hopefully help us to focus on the critical problems for the University as a whole, as well as the ones presented by individualized applications.