Under the Faculty Senate Rules, formal notification to members may be accomplished by publication in *Almanac* in lieu of direct mail. The following is published under that rule:

**TO:** Members of the Faculty Senate  
**FROM:** Roger D. Soloway, Chair  
**SUBJECT:** Senate Nominating Committee

1. In accordance with the requirements of the Faculty Senate Bylaws, notice is herewith given to the Senate Membership of the Senate Executive Committee's 9-member slate of nominees for the Nominating Committee for 1986-87. The Nominating Committee nominates candidates for election to the Offices of the Senate (chair-elect and secretary-elect), to the at-large positions on the Senate Executive Committee, and to the Senate Committee on the Economic Status of the Faculty and the Senate Committee on Academic Freedom and Responsibility. The nine nominees, all of whom have indicated their willingness to serve, are:

   - Regina Austin (assoc prof law)  
   - James Davis (prof history)  
   - Louis A. Girfalco (prof materials science)  
   - Joan Lynaugh (assoc prof nursing)  
   - Daniel Malamud (prof biochem dental)  
   - Martin Pring (assoc prof physiology med)  
   - Phyllis Rackin (assoc prof English)  
   - Susan Wachter (assoc prof finance)  
   - Walter D. Wears (prof physics)

2. Pursuant to the Bylaws, you are herewith invited to submit additional nominations, which shall be accomplished via petitions containing at least twenty-five valid names and the signed approval of the candidate. All such petitions must be received no later than fourteen days subsequent to the date of this notice. If no additional nominations are received, the state nominated by the Executive Committee will be declared elected. Should additional nominations be received, a mail ballot will be distributed to the Senate Membership.

The closing date for receipt of nominations by petition is Tuesday, November 25, 1986. Please forward any nominations by petition to the Faculty Senate Office, 15 College Hall/6303.

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**In Endowed Chairs: Dr. Daly, Dr. Rescorla**

Two major endowed professorships have been filled this semester—the Jonathan E. Rhoads chair in surgery by Dr. John Michael Daly of Cornell and the James M. Skinner chair of science by Dr. Robert Rescorla of psychology.

**Rhoads Chair:** Dr. Daly, a 1962 Swarthmore alumnus with highest honors who took his Ph.D. here in 1966, joined the Penn faculty as full professor in 1981 after 15 years at Yale. Last year he became chair of the department as well.

A Woodrow Wilson, NSF and later Guggenheim Fellow, Dr. Rescorla is a member of the National Academy of Sciences, winner of the American Psychological Association's 1986 Distinguished Scientific Contribution Award, president of the Eastern Psychological Association, and a prolific writer and consultant editor on experimental psychology, animal behavior and learning. The Skinner professorship, previously held by Emeritus Professor Richard L. Solomon, was established in memory of the late alumnus for whom the Faculty Club is also named.

**Rhoads Chair:** Dr. Daly is the first incumbent of the Rhoads Professorship of Surgical Science, established in honor of the former Provost (1956-59) who was also John Rhea Barton Professor and Chair of Surgery until 1978. Dr. Rhoads has been with the University since June 1932 when he arrived as an intern. Dr. Daly is a Philadelphia who graduated cum laude from LaSalle in 1969 and was named one of the Outstanding Young Men in America in 1972 while completing his M.D. at Temple (1973). Relocating to Houston for his internship, residency and chief residency with University of Texas units, he joined the Texas faculty in 1978 and held various appointments in its Medical School and M.D. Anderson Hospital and Tumor Institute. In 1980 he returned to the east as assistant professor at Cornell University Medical College, with additional affiliations at Sloan-Kettering in New York, Rockefeller University Hospital and the New York Hospital. He is a Fellow of the American College of Surgeons who has won a dozen medals and awards and published some 85 research papers, primarily in cancer and related nutrition studies.

**Approval of Penn's Animal Welfare Assurance**

In a November letter to Vice Provost for Research Barry Cooperman, the University was advised that its new Animal Welfare Assurance has been approved by the Office for Protection from Research Risks (OPRR).

“The Assurance is a key document defining the relationship of your institution to the Public Health Service,” said OPRR Policy and Assurance Chief Dennis J. Doyle, “since it sets forth the responsibilities and procedures of your institution regarding the care and use of laboratory animals.” He called attention to reporting requirements, which call for annual reports on or before the anniversary date of the Assurance (set as October 21, 1986). The overall approval period is three years, with September 30, 1989 as the end date.

In the annual filing, Penn is to report any changes in accreditation by the AAALAC (American Association for Accreditation of Laboratory Animal Care) or changes in membership of the IACUC (Institutional Animal Care and Use Committee); verify that the IACUC has conducted annual evaluations of programs and facilities; and “provide the OPRR promptly with a full explanation of the circumstances and actions taken with respect to (1) any serious or continuing noncompliance with the PHS Policy, (2) any serious deviations from the provisions of the Guide, and (3) any suspension of activity by the IACUC.”

In the structure presented in the Assurance, two Associate University Veterinarians—Dr. Moshe Shalev of Medicine (covering also the psychology department of SAS) and Dr. Stephen F. Schiffer of Veterinary Medicine (covering also Dental Medicine, SEAS, and the biology department of SAS)—report to a University Veterinarian who in turn reports to Dr. Cooperman.

The University Veterinarian, retitled Director of Laboratory Animal Resources, will be Dr. Harry Rozniarek of Ohio State, who takes office in January (see *Almanac* September 9).
November 19 Senate Meeting: Anything but Humdrum

In theory, Faculty Senate meetings should provide the opportunity for members of the standing faculty to voice their opinions on current issues and, of even greater importance, to hear the richness and variety of their colleagues' opinions. In recent years, much of the meetings have been occupied with repeating already published reports with relatively little time for opinion or discussion. This year, I plan something different. Reports by the President, Provost, Senate Chair and selected committee chairs will be brief, allowing maximum time for discussion of the issues. I have been impressed that in past meetings, positions developed in committees have been enriched, expanded, and revised by ideas and comments contributed from the floor of the Senate. I will attempt to maximize this activity at both the Fall and Spring Meetings of the Faculty Senate. As with any session, advance preparation is needed.

For our part, we have been debating the issues through the fall and I will try to outline the various positions that have been developed in my introduction to each topic with the aim of minimizing polemics and maximizing your ideas.

For your part, you should review the recent issues of Almanac which contain the Sexual and Racial Harassment Reports, the proposals to change the Senate Rules and the viewpoints of a number of your colleagues in the Speaking Out section.

An interim report from the Chair of the Committee on the Economic Status of the Faculty, Professor James Walter, will also be featured. The faculty salary targets and a review of the recent and impending changes in your benefits will be discussed. The docket does not seem long but that has been designed to maximize time for discussion.

The proposals to alter the Senate Rules represent widely divergent views of how the Senate should be governed. 1. What is the role of at-large representatives to the Senate Executive Committee (SEC)? Do they represent different faculty constituencies or do they reflect the views of members already on SEC? 2. Should the Senate Nominating Committee be predominately independent of SEC so as to get the largest turnover of faculty leading the Senate, or should its composition reflect that of the Executive Committee which is likely to be knowledgeable about those individuals with experience who might best lead the Senate?

In my column in last week's Almanac, I focused on the continuing discussions about the Sexual and Racial Harassment Reports. These discussions are continuing in Council, the Senate Executive Committee, in Almanac and across campus. Many legitimate but differing points of view have been voiced. There is a need for improvement in the area of harassment but we must be wise enough to address this problem without over taxing our service to our colleagues through membership on committees and without compromising that most fragile of faculty rights, academic freedom.

For these reasons, the Fall Faculty Senate Meeting should be anything but humdrum.

Inventory of Periodicals

Almanac is preparing to update its occasional list of Periodicals on the Penn Campus, last published February 23, 1982. By December 10 we will appreciate information and/or recent sample copies from editors of periodicals whether published by a University unit, or published at the University under other aegis.

For a separate section, information is requested on any one-time or as-needed manuals, directories, catalogs or guides published by or at the University.

We are not requesting ephemeral printed matter such as direct mail pieces, brochures, flyers, course schedules, etc.

Note: If a publication was in the February 23, 1982 listing, or if you are certain Almanac is currently on your mailing list, you need not send a sample—particularly if your periodical or manual is expensive or in short supply. But we would appreciate in all cases the information below:

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Send to: INVENTORY, Almanac, 3601 Locust Walk 6224

Reminder: Faculty are invited to attend the reception for Parents immediately following the Harvard/Penn football game, Saturday, November 15. Hosted by the President, Provost and Faculty, the reception will be in the University Museum's Rotunda. Call the Parents Program at Ext. 8445.

Correction: In the list of Appointments and Promotions in the Standing Faculty published last week, Dr. Elizabeth Bartman's title should have read Assistant Professor of History of Art, in the School of Arts and Sciences Appointments section.

Almanac

3601 Locust Walk, Philadelphia, Pa. 19104-6224
(215) 898-5224 or 6224

The University of Pennsylvania's journal of record, opinion and news is published Tuesdays during the academic year and as needed during summer and holiday breaks. Guidelines for readers and contributors are available on request.

EDITORS: Karen C. Gaines, Marguerite F. Miller
ASSISTANT EDITORS: Mary Corbett, Mary A. Clark
EDITORIAL ASSISTANTS: Catherine E. Clark, Mary A. Downes, Amy E. Gardner, Michele Y. Holloway, Michael S. Markowitz, Leonid S. Perlman, Daniel B. Siegel
STUDENT ASSISTANTS: F. Gerard Adams, Dan Ben-Amos, Linda Brodkey, Jean Crockett, Michele Richman, Roger D. Solomon, Michael Zuckerman, for the Faculty Senate; William G. Owen for the Administration.

For the A-3 Assembly: Joseph Kane for the A-3 Assembly.
Highlights of the Class of 1990

The Class of 1990 was selected from the largest number of applicants in the University's long history. The number of students seeking admission has risen dramatically over the past eight years to this year's 13,019. This is thanks to the close cooperation of the entire University community—administrators, faculty, students and alumni—as well as to the continued work to improve and enhance our recruitment and enrollment efforts. Penn's level of visibility among the college-bound population appears to be increasing each year.

We were able to offer admission to approximately 37% of our applicants, matriculating a class of 2,260. This represents a significant shift from 1978's admit rate of 56% and is a reflection of the increased selectivity made possible by the broadening of our applicant pool from 1978's approximately 7800. These students represent the University's continuing commitment to the idea that "diversity of student background is a positive educational value." This diversity is two-fold—a broad geographic representation and a wide range of ethnic and cultural backgrounds.

The West, South and Midwest continue to increase their numbers in our matriculants, with California ranking as our fourth largest feeder state, after the traditional feeder states—Pennsylvania, New York and New Jersey. This year 158 members of the class are from the Far West—more than double 1982's 86. Of the 158, California contributed 132.

This progress is a giant step forward but still only a step in the direction we must go if we are to continue to compete for the strongest of the nation's young people. Most of our Ivy League colleagues matriculate greater percentages of their class from outside of the East. We continue to draw the greatest number of students from the Northeast even though almost 40% of this year's class comes from outside this traditional feeder area.

Another strong area of growth continues to be in our international pool of matriculants, with an increase of 38% over 1985 (111 to 153). These students represent 7% of the class and come from 44 countries on six continents.

Admissions staff members presently are travelling over ten weeks visiting countries in Europe, Asia, Central and South America, as well as Canada in order to increase and enhance the University's visibility abroad.

We continue to be concerned by the overall results of our recruitment and matriculation of minority students. Progress over the last two decades of a formal recruitment effort has been mixed, despite concerted efforts of both this office and our minority alumni as well as other members of the University community. There has been a gratifying increase in the number of Asian-American applicants and matriculants each of the past six years, and the Hispanic numbers are holding firm.

There was, however, a puzzling drop in numbers of black students choosing to matriculate at Penn—127, down from 160 in 1985, and 151 in 1984. It is clear that we must redouble our efforts toward this group, especially in areas of strong concentration of black students such as our home area of Philadelphia and the metropolitan areas of New York and Washington. A bright note, however is that the Class of 1990 boasts 35 graduates of the LEAD program. LEAD selects top minority students from around the country to participate in summer programs to introduce them to the world of economics, business, management and finance as well as exposing them to a collegiate setting. Penn's Wharton School hosts such a program each summer.

As always, the class represents a remarkable range of interests and achievements outside the classroom. For example: The freshman class includes 1,141 presidents of various honor societies, and 524 captains and/or stars in one or more varsity sports, including 4 with Olympic or world class potential. There are 214 with leadership roles in journalism, including a number of published writers. In the field of music and the performing arts, 388 have held first-chair positions, starring roles in dramatic works, and state or national lead positions in many areas of performance. The class has a strong entrepreneurial flavor with over 200 members who work more than half-time and 27 who own and operate their own businesses. One such young person became the fourth-ranked Apple Computer salesman in the United States at the age of 12! Another is the youngest chanter of Byzantine music in the United States and yet another is a working journalist, writing regular columns for two local newspapers.

Almost 15% percent of our class (or 334) have alumni ties to Penn while 70 (or 3.1%) are children of our faculty and staff. Approximately 44% of the class are women, about the same as last year.

As Penn has become a school of choice for more and more of this nation's top academic students, another challenge has become clear. We are competing for these young people with the nation's other premier institutions, including our Ivy League colleagues. The task for all of us—Admissions Office, faculty, administrators, students and alumni—is to persuade these students to matriculate. The Admissions staff is already traveling and visiting over 2000 schools and hosting more than 100 programs to seek out the brightest and most talented of this year's high school seniors for the Class of 1991.

Willis J. Stetson, Jr. Dean of Admissions
Speaking Out

This is Decline?

I read with pleasure the report of the Community Relations Committee (Almanac, October 26) and learned of the efforts by the University to reach out and impact positively on the community. I was then dismayed to read the report on Student/Faculty Interaction in which reference was made to Penn’s location “in a declining urban environment.” As a resident of the neighborhood, I am angered and hurt. But I also think the ignorance revealed by the comment is widespread within the University community. How many of us believe that the wasteland begins at 40th Street, a view held staunchly since we last ventured there in 1973? Perhaps the Community Relations Committee should accept as part of its charge education of the University community.

Is University City declining? In the sense that disorder in the Universe is increasing, I suppose so. In the City of Philadelphia, the City of University of Pennsylvania is a declining university, and heaven knows, western civilization has already declined. But I decline such a pessimistic view. My house has appreciated $20,000 in the past year. The house on my block that stunned us so when it sold for $98,000 a year ago now seems like a steal at that price. A house on the next block that could have been picked up in 1965 for $10,000 is now on the market for $225,000. This is decline!!

University City offers many charms, starting with a superb stock of Victorian housing on tree-lined streets. There is something of the small town here: we know our neighbors and we walk to work. University City is the paradigm of the urban environment that works. In fact, ABC 20/20 decided a few years ago, based on US Census Bureau data, that we are the most socioeconomically integrated neighborhood in the nation. Here doctors, lawyers and faculty live side by side with Vietnamese, Cambodians, Koreans, Haitians, Ethiopians. My block is half black, half white. The blacks include an architect, a banker, an accountant, a contractor and several schoolteachers. We include four Penn faculty and a newspaper columnist. My local church has one of the finest French organs in the country and a classical chorale that matches. We are served by an excellent trolley system, have easy access to some of the finest medical care in the world, and to the downtown stores, cultural institutes, etc.

Are there any problems in University City? Of course. Is University City for everyone? Of course not! That is why they make chocolate, vanilla and strawberry. But those of us who choose to make it our permanent home find it congenial, challenging, stimulating. If you do not choose to be our neighbors, please do not find it necessary to insult us!

—Peter Dodson, Associate Professor of Anatomy/Vet

Response

We sincerely apologize for our blunder. We were in error by not acknowledging the recent strides that have been made in the revival of University City. We stand corrected.

—Linda P. Nelson, Assistant Professor of Pediatric Dentistry
—Vivian Selzter, Associate Professor of Social Work
—John Anderson, Assistant Professor of English

Keep New Senate Rules

I am writing to urge members of the faculty to attend the Senate meeting on November 19 and to vote against the proposals for the restoration of members-at-large in the Senate Executive Committee and of the former nominating committee procedure.

The effectiveness of the Senate Executive Committee (SEC) depends on its representative character. Many of the issues discussed by SEC do not arouse the interest of many of the faculty, but it is important to have a SEC that really is representative when gut issues such as those relating to academic freedom and the economic status of the faculty arise. On all issues the influence of SEC will be greater if it is seen clearly to represent the faculty.

Under the new arrangements, approved by the Senate last Spring, SEC consists only of six officers of the Senate (past, current, and elect chair and secretary) and 36 representatives, each elected by a constituency (the faculty of a department, group of departments or a school). This provides direct representative government with each faculty member having the opportunity to cast a ballot for a person likely to be known to him or her. If you favor representative government in the Senate, it is hard to improve on this simple and transparent system.

Why then do we have a proposal (from the School of Nursing) to return to the old system in which nearly a third of the members of SEC (excluding 6 ex-officio members) were members-at-large? I have heard three arguments.

One is that the at-large members provide a welcoming influence bringing SEC views that would not be encountered among the relatively homogeneous representatives elected by constituency majorities. It may be questioned whether setting aside seats for off-beat views improves the representativeness of SEC, but a philosophical debate on this issue made superfluous by the fact that the at-large members are not in practice leaveners and that the constituency representatives are not in practice homogeneous in their views. Right now the constituency representatives include persons with a broad range of views on the issues that confront the University as can be found in the faculty. They include the most outspoken long-time advocate of a conservative approach to the agenda of University governance and an equally ardent and consistent leader of a liberal approach. What then of the at-large members? Do they increase the heterogeneity? The answer is that in the past the intricate nominating process made it possible for faculty members with active interests in Senate affairs to influence the nominations which were until recently tantamount to election. Judging from the results, the active persons sought clones, not diversity. In any case, the results did not increase the diversity of membership in SEC and certainly did not enhance the representativeness of Senate governance. At present, there are no minority faculty members in the at-large group, and the proportion of women is about the same as that among the constituency representatives.

Another argument made on behalf of the provision for at-large members is that they give out added representation to small schools. Indeed, the School of Nursing has had an at-large member of SEC for half of the last 10 years. Is it equitable for the Nursing School, with a faculty of less than 40, to have two representatives while groups several times as large have only one? (Under the old arrangement with at-large representatives, over 300 faculty members in a group of clinical departments in the Medical School have one representative).

Another claim made on behalf of the at-large members is that they are more faithful in attending SEC meetings. Now I must say that my participation in Senate affairs has led me to respect the pragmatism and good judgment of members of the Nursing School faculty, but as a choice between a second Nursing School faculty member attending all the SEC meetings and a member elected by my own department attending only half the meetings, I am cautious enough to prefer a representative who lives in my milieu. If the principle in question had been adopted by the founding fathers in the U.S. Constitution, they might have given the prevailing stereotypes, assigned more representation to the vigorous North and less to the easy-going South in order to increase the proportion of hard working representatives.

Representative government is best for the Senate. Among the forms of representative government, one that is simple and transparent is best. Letting everything depend on the voters and the representatives they directly elect meets these optimal conditions. Don’t be led down a path in which elaborate mechanisms are again established to choose representatives. This has the disadvantages of obscuring the lines of representation and of enhancing the possibility of behind the scenes influences in the selection of Senate officers and SEC members.

—Irving B. Kravis, Professor of Economics

Response to Dr. Kravis

We urge faculty to vote in favor of Resolutions 1 and 2 that are on the agenda of the Faculty Senate Meeting of November 19 from 3-5:30 p.m. in 200 College Hall.

The resolutions would provide for the composition of the Senate Executive Committee...
that the membership at large will turn out
and vote to restore these positions under the Senate
Rules.

From the chair of Senate one sees at close
range that the at-large members make up a
valuable component of the advisory
process: they tend to be very diligent; they
generally have all-University service records
that bring their names forward for nomi-
nation in the first place; and they help con-
vey the thinking of the large and diverse
Senate membership in a way that comple-
ments the constituency-based representation
by school and department.

As announced at the March 1986 special
meeting, SEC itself supported the continua-
tion of the at-large seats. Their first-hand
knowledge of the workings of Senate leader-
ship is even more recent than mine but SEC
came to the same conclusion about their
value.

It is not clear to me why their elimination
was thought necessary in the Committee on
the Faculty's initial recommendation. The
argument for elimination given at the March
meeting, that SEC would be "too big" if we
both retained the at-large seats and increased
the representation from the large schools,
deserves discussion on its own terms.

The proposition that a larger SEC is viable
had very little time on the agenda before the pro-
cedural vote that bound the elimination of the
at-large seats to the creation of new seats for
Medicine and SAS.

In the new motion to restore these seats
and thus have a larger SEC, we are now
talking about a change of degree, not of
kind. The Senate made its substantive deci-
sion on size of leadership in 1980 when the
12-member Senate Advisory Committee (all
at-large) became the present Senate Execu-
tive Committee with its 26 constituency reps,
12 at-large members, 3 associate professors
and 6 elected officers. The larger SEC with
its mixture of constituency and at-large dele-
guies has been highly effective. Senate has
been more representative, better able to
respond to the membership at large and in
a far stronger position to address the Admin-
istration on behalf of the faculty. Certainly in
my experience as Chair, it was advantageous
to have a large body to hear from, and to
draw upon when forming committees and
task forces to do the Senate's work.

The at-large seats were abolished at the
special meeting by the narrow margin of 8
votes (56 for, 48 against, and 5 abstentions).
Restoring the at-large seats, now that the
larger Schools' representation needs have
been met, would give the approximately
18-member Senate an executive body of 57
rather than 47. Far from seeing any particu-
lar strength to be gained from dropping the
number to 45, I suggest there is merit in hav-
ing 57 voices able to discuss issues monthly
at SEC, and adding weight to the faculty
position both in the Consultation Committee
meetings with the Administration and in the
mixed forum of University Council.

—Phoebe S. Lehoy,
Professor of Biochemistry/Dent
(Faculty Senate Chair 1981-82)

Earthquake Relief

Professor Anna Marie Chirico, Professor
Thomas Reiner, Dr. Robert E. Coughlin,
and I have formed a committee to help the
victims of the El Salvador earthquake that
came to the same conclusion about their
value. It is not dear to me why their elimination
was thought necessary in the Committee on
the Faculty's initial recommendation. The
...
Data Network Design Standards for The University of Pennsylvania

Summary

This report covers concerns important to offices or research groups planning to interconnect terminals, microcomputers, computers, or data networks. It addresses data transmission protocol standards for new data networks in offices or laboratories ("local area networks"), it reports on data wiring standards that have been developed by a group of engineers and analysts headed by the Office of Data Communications and Computing Services, and it outlines the process now underway to lead to a decision on standards in these two areas by February, 1987.

Current Network Status

Construction of the University data network is well underway. By December, services on the network will include access to the University administrative data files for direct review or for downloading to microcomputers, access to three major academic computer centers, access to the Library's main catalogue, access to the national super-computer network, connection to a residential data network available to the residence halls and to homes in the University City area, connection to TYMNET (a communications service providing access to a variety of commercial data services), connection through academic or administrative computers to BITNET (a messaging service for over 1200 universities), and connection among a number of office mail systems. By March, additional services, such as medical literature search and ARPA-NET access, will be available and the network will be brought to wiring closets within approximately 200 feet of any location in the 130 academic buildings of the University and Hospital.

One principal objective of the network is to bring all of these services, and the many others that will evolve around the net, to the desktop of each network participant. This is technically a demanding task, since all services and participants potentially have their own ways of talking over the network. An electronic tower of Babel is not what we seek: some decisions are needed to determine the electronic protocols governing conversations over the network.

Background for Decision

The University of Pennsylvania began its data networking effort in 1984, following a long-range planning study by the Academic Computing Committee in 1983. The data network was planned as an hierarchical network consisting of five parts: local area networks or terminal clusters in individual offices, laboratories, or departments; student residence hall data networks; links to Philadelphia residences; links to national data facilities; and the backbone, or spine, which was to interconnect all of these elements.

Initial planning centered on the nature and structure of the spine. AT&T's packet switching Information Systems Network (ISN) was selected as the technology for the spine because AT&T was one of the few vendors that had extensive fiber optics installation capability and, out of that set, AT&T alone had the research capability and corporate commitment to respond to particular University needs. In addition, the network was less expensive than most spines installed at other universities, and its technical specifications provided the potential for the eventual inexpensive provision of the range of interfaces and protocols required at Penn.

In early 1985 planning turned to the interaction of the other parts of the network with the spine and with each other. It became clear that one of the major problems would be the difficulty of ensuring that various offices and departments allocated sufficient funds for attaching microcomputers to the spine and maintaining its operation. Many people did not know what the network would do for them, and initial costs to build local area networks attached to the spine were significant. These considerations led to two decisions. First, the spine would be brought to each floor of each building to lower the financial barrier to individual offices for connection. Second, a series of focus meetings were held with the University community to learn campus priorities for networking and to discuss the ways in which a data network could address those priorities.

Experience with the technology of the ISN spine and its interfaces accumulated during late 1985 and early 1986. A pilot ISN network connecting eleven buildings was installed in December, 1985 and was opened for general use in April, 1986. Facilities and procedures for operating and administering a multi-node network were worked out. The design of the final network was completed and construction is underway throughout the University's 130 buildings to install the network on each floor by March, 1987.

In early to mid 1986, independently of the development of the spine, departmental and office interest in local area networks grew strongly. The University word processing net, based on Wang equipment, was discontinued giving impetus to local area nets in the Provost's Office, the Office of General Counsel, the Law School, and the Office of Research Administration. The Hospital began its own local area net effort and the School of Medicine began its own parallel planning. The Wharton School and the School of Engineering and Applied Science planned their own networks. Dining Services put in an order for a network to support their own operation. The Senior Vice President sponsored studies of networks for administration. The Laboratory for Research on the Structure of Matter and the School of Arts and Science continued to build connections between research groups and off-campus computer centers. Radiology extended its research network. Many other offices and departments indicated to the University network engineering team that they were anxious for help and guidance in determining their network directions. In each case, these local area networks were proposed for the purpose of communication among the components of an individual office and not for intercommunication with other offices or services.

In April, 1986, in response to the need to limit the number of protocols transmitted over the spine and the growing proliferation of local area networks, the University network engineering team began a technical study of protocols, wiring design, and connection strategies that would provide local area networks and host computers with the maximum of interconnectivity. This study called for a cost equivalent to that needed to establish a high performance, multi-room, stand-alone local area network without significant overhead on host computers. Various University offices, including the Wharton School, the School of Engineering and Applied Science, and the University Management Information Services Office were an ongoing part of the study.

Recommendations

The technical study leads to the proposal for two general methods for data transmission in newly constructed local area networks: asynchronous and ethernet protocols. It also leads to standards for wiring buildings and offices that would assure lowest cost for wiring changes over the years and maximum flexibility for present network installations. These proposals are currently under discussion with the University community in a process that will lead to a decision on network standards by February, 1987. [The detailed study results are available from the Office of Data Communications and Computing Services (Ext. 2883).] An overview of the recommendations and the decision procedure follows.
Recommended Protocols for Use in New Office and Laboratory Networks

Asynchronous transmission protocols operate at 19,000 bits per second or less and typically cost less than $700 per connection. They support microcomputer-to-mainframe connections at lowest cost; most personal computers come with asynchronous interface hardware built in; and emulation of IBM terminals connected to UMS is available to them. Asynchronous protocols are not suitable, however, for frequent transmission of files among mainframes and personal computers.

Ethernet protocols, using “TCP/IP” standards, will support frequent transmission of files among microcomputers and mainframes at rates above 600,000 bits per second. Using the proper microcomputer interface, TCP/IP ethernet protocols are simultaneously consistent with the Department of Defense suite of functions that are presently the inter-university standard, with the IBM PC local area network standards, and with the standards for connecting IBM 3270 full-page-display terminals to IBM mainframes. The cost for building an Ethernet is between $1,500 and $2,000 per connection. The TCP/IP ethernet protocols and a specific Ungermann-Bass interface board are recommended as the basis for local area networks that involve file sharing functions.

As the networking technology evolves, over the next year, we expect to propose two other standards: a high-range service costing about $1000 per connection and operating above 150,000 bits per second, and a version of the IBM token ring network. The mid-range service is meant to fill the cost/performance gap between the asynchronous and ethernet services in order to allow a wider range of choice. The IBM token ring network is likely to become a significant software base and, although its costs and performance are no better than the ethernet, it will probably be needed at the University. Neither of these products presently offers a wide range of software and interfaces from a number of vendors; and we do not yet see a way to bring them to consistency with the bulk of the University’s communications needs.

Proposed Schedule for Connection of Buildings to Operation ISN Buildings

<table>
<thead>
<tr>
<th>Operational . . .</th>
<th>By 11/15/86</th>
<th>By 12/1/86</th>
<th>By 12/15/86</th>
<th>By 1/15/87</th>
<th>By 2/1/87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blockley Hall</td>
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<tr>
<td>W-15 Hall</td>
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<tr>
<td>By 1/15/87</td>
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<tr>
<td>By 11/15/86</td>
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<tr>
<td>Roxenthal</td>
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<tr>
<td>Van Pelt House</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>By 1/15/87</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Class of 1925 House</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>By 12/15/86</td>
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<tr>
<td>McKnight Hall</td>
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<td></td>
<td></td>
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<tr>
<td>By 12/15/86</td>
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<td></td>
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<tr>
<td>By 1/15/87</td>
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<tr>
<td>By 1/15/87</td>
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</tr>
</tbody>
</table>

Standards for Wiring Buildings and Offices

The basic scheme is to establish wiring closets within 200' of every part of a building as part of the installation of the University spine. Optical fibre, and thick coaxial cable, will be run to these closets by the University network engineering group, and electronic interfaces and patch panels will be provided. A department will then wire a local area network by laying “radial” runs of multi-purpose cabling from these closets to the specific offices that need service. These radial runs can be laid as they are needed; they do not require a major initial wiring investment for the entire building. Once laid, the wiring will support any of the present and future recommended protocols interchangeably: converting offices to new networks is a matter of changing connections at the wiring closets, not running new wires. The Office of Data Communications and Computing Services (Ext. 8171) will provide the exact specifications for this radial wiring and will install it, together with the needed electronic interfaces and software, at the costs outlined above.

Decision Procedures

The presentation of the results of the technical study to the University for discussion and comment began in August with a series of focus meetings with key individuals. During October a subcommittee of the Academic Computing Policy Committee, consisting of Ronald Arenson, Barry Cooperman, and Carl Abramson, will be working with an external consultant to review the proposed standards. The results of the consultant’s review will be sent to the Academic Computing Policy Committee as well as to a management team consisting of the Provost and the Senior Vice President. In early 1987, the technical study results as modified by the comments of the focus groups, the external consultant, the Academic Policy Committee and its subcommittee, and the management team will be sent to the deans. Final recommendations will be published in Almanac as proposed standards for comment. Final standards for University local area networks are expected to be adopted in early 1987.

—David L. Stonehill, Vice Provost for Computing
Curtis Organ’s 60th Anniversary

The Curtis Organ Restoration Society is sponsoring a concert series celebrating the 60th anniversary of Penn’s organ, the 11th-largest pipe organ in the world. The first benefit will feature Diane Bish in a program including French romanticists and America’s Charles Ives November 12 at 8 p.m. in Irvine Auditorium. The Mayor’s Office designated that day as Curtis Organ Day and will present the Society with a proclamation. The Society has grown, since its inception in the early 1970’s, to 75 members who have spent $22,000 and nearly 5,000 hours of unpaid labor to restore the 10,731 pipes and console.

Upward Bound Visitors

Launching a new form of exchange for high-school students affiliated with the pre-college Upward Bound programs of the area, Penn Upward Bound will host students from the East Stroudsburg Upward Bound on Saturday, November 15. Penn students interested in volunteering as tour guides, or anyone wishing to take part in the day’s activities, can call Randall Sims at Ext. 3185.

United Way/Donor Option Campaign 1986-87

Sixth Report, November 7, 1986

The University community’s recent surge of gifts has moved the United Way/Donor Option Campaign well over the 50% mark with a total of $136,539 contributed. Leading the schools is Annenberg with 71% participation. The largest administrative department, Vice President for Facilities Management, has reached 73% participation. Departments that have reached 100% include the following: Admissions, Alumni Relations, Office of Affirmative Action, Archives, Corporate and Foundation Relations, Planned Giving, Internal Audit, and Wharton On-Campus Recruiting. The 90% bracket includes at least 10 others.

<table>
<thead>
<tr>
<th>School/Department</th>
<th>Number Solicited</th>
<th>Percentage Contributing</th>
<th>Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annenberg Center</td>
<td>26</td>
<td>0%</td>
<td>$ 0</td>
</tr>
<tr>
<td>Annenberg School</td>
<td>52</td>
<td>71%</td>
<td>3,158</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>941</td>
<td>15%</td>
<td>19,010</td>
</tr>
<tr>
<td>Dental Medicine</td>
<td>274</td>
<td>7%</td>
<td>711</td>
</tr>
<tr>
<td>Engineering</td>
<td>209</td>
<td>7%</td>
<td>7,697</td>
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<tr>
<td>Fine Arts</td>
<td>85</td>
<td>5%</td>
<td>895</td>
</tr>
<tr>
<td>Graduate Education</td>
<td>65</td>
<td>29%</td>
<td>1,071</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>94</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Law</td>
<td>74</td>
<td>14%</td>
<td>1,130</td>
</tr>
<tr>
<td>Libraries</td>
<td>317</td>
<td>32%</td>
<td>4,170</td>
</tr>
<tr>
<td>Medicine</td>
<td>1,688</td>
<td>12%</td>
<td>34,662</td>
</tr>
<tr>
<td>Morris Arboretum</td>
<td>37</td>
<td>73%</td>
<td>2,113</td>
</tr>
<tr>
<td>Museum</td>
<td>95</td>
<td>18%</td>
<td>1,282</td>
</tr>
<tr>
<td>Nursing</td>
<td>90</td>
<td>26%</td>
<td>1,552</td>
</tr>
<tr>
<td>Prodest</td>
<td>192</td>
<td>67%</td>
<td>10,207</td>
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<tr>
<td>Senior Vice President</td>
<td>630</td>
<td>9%</td>
<td>5,286</td>
</tr>
<tr>
<td>Social Work</td>
<td>39</td>
<td>38%</td>
<td>1,712</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>542</td>
<td>9%</td>
<td>2,327</td>
</tr>
<tr>
<td>VP for Dev. &amp; Unix. Relations</td>
<td>176</td>
<td>51%</td>
<td>4,837</td>
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<tr>
<td>VP for Financial Mgmt</td>
<td>594</td>
<td>73%</td>
<td>3,679</td>
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<tr>
<td>VP for Finance</td>
<td>145</td>
<td>19%</td>
<td>3,212</td>
</tr>
<tr>
<td>VP for University Life</td>
<td>272</td>
<td>23%</td>
<td>5,066</td>
</tr>
<tr>
<td>Wharton</td>
<td>480</td>
<td>67%</td>
<td>15,791</td>
</tr>
<tr>
<td>Other</td>
<td>491</td>
<td>1,128</td>
<td></td>
</tr>
</tbody>
</table>

TOTALS: 7,337 22% $136,539

Department of Public Safety Crime Report

This report contains tallies of Part I crimes on campus, a listing of Part I crimes against persons, and summaries of Part I crimes occurring in the five busiest sectors on campus between November 2, 1986 and November 9, 1986.

**Total Crime**

**Crimes Against the Person — 0, Burglary — 2, Theft — 14, Theft of Auto — 0**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time Reported</th>
<th>Location</th>
<th>Incident Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-07-86</td>
<td>12:41 PM</td>
<td>Houston Hall</td>
<td>Unattended purse taken during party 11/1/86</td>
</tr>
<tr>
<td>11-07-86</td>
<td>7:56 PM</td>
<td>Dahng Wing</td>
<td>Unattended knapsack stolen from desk</td>
</tr>
<tr>
<td>11-08-86</td>
<td>11:00 AM</td>
<td>Houston Hall</td>
<td>Jewelry taken from cart/Phil. police notified</td>
</tr>
<tr>
<td>11-08-86</td>
<td>5:40 PM</td>
<td>Houston Hall</td>
<td>Pioneer Disc Player taken</td>
</tr>
<tr>
<td>11-08-86</td>
<td>11:38 PM</td>
<td>Houston Hall</td>
<td>Purse taken during dance in Doked Lounge</td>
</tr>
<tr>
<td>11-03-86</td>
<td>8:37 AM</td>
<td>Anah-Chem Wing</td>
<td>Clock taken from secured office</td>
</tr>
<tr>
<td>11-03-86</td>
<td>4:36 PM</td>
<td>Richards Bldg.</td>
<td>Cash and weapon taken from locker/locker &amp; lock forced</td>
</tr>
<tr>
<td>11-04-86</td>
<td>3:09 PM</td>
<td>Nursing Ed Bldg.</td>
<td>Wallet from unattended briefcase/room unsecured</td>
</tr>
<tr>
<td>11-03-86</td>
<td>12:10 PM</td>
<td>Steinberg-Dietrich</td>
<td>Petty cash box taken from desk</td>
</tr>
<tr>
<td>11-04-86</td>
<td>1:50 PM</td>
<td>Book Store</td>
<td>Wallet taken from wallet while at cashiers window</td>
</tr>
<tr>
<td>11-04-86</td>
<td>2:17 PM</td>
<td>Van Pelt Library</td>
<td>Locked bike taken from rack 1 month ago seen at library</td>
</tr>
</tbody>
</table>

**Safety Tip:** During the last four weeks, reported crime at Penn has decreased when compared to the same period in 1985. Let’s work together in order to continue with this trend. Think prevention—public safety.

**Films**

**Update November on Campus**

**FILMS**

**International House**

General admission is $3.50, $2.50 for members, students and senior citizens. The first show begins at 7:30 p.m. Information: 387-5125, Ext. 204.

**12 Sensei:** An experimental essay about the experiences of a young Japanese American as he tries to remember a father he never knew. Yuki Shimoda: Asian American Actor; a tribute to Shimoda depicting the achievements and disappointments of the minority actor in America.

**Jazz is My Native Language:** A documentation of the life of Toshiko Akiyoshi, world renowned pianist, composer, producer and band leader.

**13 Naked Spaces:** Living is Round: An analysis of the relationship of people to their habitat. A reception with film-maker Trinh T. Minh-ha follows; 7 p.m.

**Penn Union Council**

Shown in Irvine Auditorium. Admission $2.

**15 Trading Places:** 7:30 p.m., 9:45 p.m.

**16 The Pink Panther:** 8 p.m.

**FITNESS/LEARNING**

**14 Morris Arboretum Safety Program:** A day-long seminar on accident prevention in the tree care industry; 9 a.m.-4 p.m., Morris Arboretum; admission, including lunch: $25. Information: 247-5777.

**MEETING**

**19 Faculty Senate:** 5-5:30 p.m., Room 200, College Hall.

**ON STAGE**

**16 Martha Graham Tribute:** Presented by Dance Celebration, in honor of Martha Graham’s 60th anniversary by Dance; 6 p.m. reception, 7 p.m. performance, followed by supper and dancing, at the Annenberg Center. Admission: $100 or $200, $25 for the performance only. For tickets call Ext. 6791.

**TALKS**

**12 Radiographic and Endoscopic Correlates of the Post-Cholecystectomy Syndrome:** Craig Aronich, gastrointestinal section, Pennsylvania Hospital; 2:30-3:30 p.m., Hope Auditorium, CHOP (Gastrointestinal Section, HUP).

**Anthropos and Sophia: How to Study Gnosticism Heidegger or Jung:** Duis Quipsilp, professor emeritus, University of Utrecht, Netherlands; 4 p.m., Gates Room, Van Pelt Library (Department of Religious Studies).

**14 The Soviet Union and International Trade:** Kathy Quinn, Ph.D. candidate in international relations; 4 p.m., B-32, Stetler Hall (Graduate Student Colloquium Series).

**18 Effective Diffusion Area For CO2:** Mark Schreiner, department of anasthesia, CHOP; 12:30 p.m., Physiology Library, Richards Building (Respiratory Physiology Group, Department of Anesthesiology).

**19 Issues of African-American Leadership:** Sies Post-Choicer Syndrome: 4:30 p.m., 14 B-32, Stetler Hall (Graduate Student Colloquium Series).

**20 Quiet Rage:** Bernad Goetz in A Time of Madness: Lillian Rubin, sociologist, therapist and author of Worlds of Pain, and Intimate Strangers; 4:30 p.m., Room 17, Logan Hall (Dept. of Urban Studies).