The Arbor
Support for Technology in Teaching
by Aviva Luria

The Arbor is not your typical computing facility. With six computers, arm chairs, artwork, and a conference table that dominates the room, the place seems to bear little resemblance to the sites usually associated with the teaching and learning of technologies. At its official opening on the evening of September 30, the room was decorated with pots of flowers, and conversations were accompanied by a musician playing the lute.

Conceived as an extension of the Teaching Resource Center’s Summer Institute for Technology in Teaching, the Arbor’s purpose is to foster student learning by working with faculty to promote excellence in the uses of technology in teaching. Created by faculty for faculty, it will serve as a consulting rather than a production facility, offering guidance and training free of charge to any campus instructor, whether teaching assistant, lecturer, tenure-track professor, or dean.

What is served up at the Arbor also is not your usual technical fare. Drop-in visitors will receive guidance tailored to their specific needs, from an introduction to e-mail to instruction on incorporating animation into a Web page. For projects requiring ongoing guidance, a project team will be formed and a plan of action determined. Workshops and informational sessions, special-interest group meetings on specific issues or applications, seminars, and guest speakers are some of the events being planned. But perhaps most important, the Arbor will be a place for collaboration, where faculty can gather to exchange ideas, work out technical, philosophical and pedagogical issues, and learn from each other about the most appropriate and effective uses of technology.

Information Resources’ Faculty Support Program, which manages and staffs the Arbor, has been putting many of these principles into practice for some time. Computer consultants Maureen Coulson and Joseph Coulombe have already assisted faculty members.

Maximizing Network Access
Preliminary Usage Patterns

The beginning of Fall Quarter saw the arrival of record numbers of enrolled students on our campus—24,450 to be precise. These large numbers are likely to generate more traffic, both in the campus computer rooms and on the UC Davis modem pool. The data available for the first ten weekdays of the quarter (9/25 through 10/9/97) and depicted in the graph (see page 2) provide a basis for helping you find the best times to utilize the campus modems and computer rooms.

Modem Pool
The UC Davis modem pool is split into SLIP/PPP modems and regular modems. Commonly used for browsing the Web and for performing large data file transfers, SLIP/PPP connections are accessed by dialing 752-7925. With 70% of the total number of modems available, this pool is the busiest; it receives the most calls daily (approximately 79%) and the average call lasts longer (approximately 45 minutes). Busy signals are typically associated with dial-ins to this pool.

The other pool, available by dialing 752-7900, provides a more general level of service. It is typically used for accessing e-mail and newsgroups. Consequently, the average call is much shorter and lasts only about 18 minutes. This pool may prove easier to access if you do not need to browse the Web.

The graph shows that the majority of calls to the modem pool during the first ten weekdays of the quarter occurred between 3 p.m. and 4 a.m. Between 9 a.m. and 4 p.m., 50% to 70% of the modems were in service. Clearly, the quietest period was from 2 a.m. to 8 a.m., when the modem pool was utilized at less than half its capacity.

On the busiest 24-hour time period, approximately 25,000 calls were made. Yet the modem pool did not reach full capacity; peak usage slightly over 80% of capacity between 8 p.m. and 12 a.m., when more than 400 dial-in users were logged on simultaneously.

The volume of calls is expected to rise throughout the quarter as...
The Arbor
A Notable Experiment

by Kevin Roddy

The Arbor is a location, Room 174 AOB IV to be exact, but more precisely it is a notable experiment in the role that technology can play in instruction. And like all experiments, it runs a risk of failure.

A Real Challenge

Similar facilities have been developed at institutions all over the country. In fact, some have even reported a number of difficult issues relating to technology and teaching. Technology offers many solutions to instruction that seem to undermine the very personal and very human approach that exemplifies the best teaching. Since teaching is also difficult to evaluate objectively the addition of a technological component further complicates the process. Some students’ responses may be skewed to the positive simply because the experience has been new and different. Others may feel that technology mechanizes their classroom environment. Another difficulty is the role of teaching at a major research university.

No matter how extensive the local efforts are (and the University of California, Davis, is reckoned one of the best teaching universities in the country) there is a pronounced emphasis on research, which must necessarily limit the resources dedicated to teaching. No wonder, then, that a number of institutions have already had to scale back on their plans for such facilities.

Faculty Oversight Committee

From the outset, the Arbor was planned to take advantage of the strengths at UC Davis, and at the same time avoid—or at least lessen—these difficulties. While Information Technology supports the Arbor, it is directed entirely by a Faculty Oversight Committee. The twelve faculty who have been selected and have volunteered for this committee are some of the best instructors UC Davis has to offer. Among them are winners of the Excellence in Teaching Award in the Academic Federation, and the Academic Senates Distinction in Teaching Award. They have all spent an enormous share of their lives engaged in innovative teaching, solid research, and public service. They became accomplished in teaching and technology precisely because they have been dedicated to improving their own instruction. Moreover, they have volunteered in their departments, divisions, and colleges to help others learn these skills. Most participate in the successful Summer Institute on Technology in Teaching, a four-year-old venture created by the Teaching Resources Center and by Information Technology to provide a week-long intensive experience of technology in and beyond the classroom. By any reckoning, the Arbor’s Oversight Committee represents as powerful an array of teaching talent, experience, and commitment as exists on this campus. But there is still a risk, arising from the uncertainty associated with technology itself. There are too many variables, too many changes occurring too rapidly, too much hype, too many false leads, and too much early obsolescence.

Addressing Challenges

The Arbor Oversight Committee

Access

from page 1

e-mail and Web usage are incorporated into classes. The general trend continues and remains clear: what the graph depicts: more calls in the evening and late night time frame, and fewer calls in the early morning and regular daytime hours.

Regular modern usage statistics and network status information are available on the Web at http://netstat.ucdavis.edu

Computer Rooms

When the campus computer rooms are not used for class, they are available on a drop-in basis and fill up quickly in the daytime. As described on the graph, students finding a computer for drop-in use is in the evening. The number of available computers increases sharply after 5 p.m. when fewer labs are reserved for class use. The computer rooms are used at less than half their capacity from 7 p.m. until they close. On the other hand, mornings and 11 a.m.

Your schedule does not allow you to remain on campus during the day if you plan ahead. One of the best options is to check out the new open access lab in TB 314 where no classes are taught. If there are no open computers at the computer room you wish to use, the Site Administrator can direct you to one where machines are available. Or you can check the Web page developed by the Lab Management team to increase your chances of finding a computer when you need one. The Web page features frequent updates on seat availability and identifies which rooms are available for drop-in use each hour. You can access this information at http://lm.ucdavis.edu/rooms/available.

— Report submitted by Matthew Matuszak (Communications Resources) with contributions by Dave K. Wong (Communications Resources) and Tim Leamy (Lab Management).
Network 21

ResNet Nears Completion

Threoue, Segundo, Tercero, Leach, Regan, and Orchard Park are now connected to the fiber-optic backbone. The remaining two reside- nce halls, Castillan and Solano Park will be connected by mid- and late November, respectively. When complete, approximately 2,750 residence NAMs (Network Access Modules, or wall jacks) will have been connected.

Six Weeks Early!

All unconnected users in Net- work 21 buildings, together with DaFIS users and designated “prob- lem LANs,” were cut over to the fiber-optic backbone as of Friday. Technology Support Coordinators will be present prior to the projected completion date. A total of 4,000 NAMs were connected during this phase.

Phase 3 Electronics

Over the next two months, technical specifications will be de- veloped for the Network 21 ATM (Asynchronous Transfer Mode) routers and switches. Vendor selections will begin in November, nar- rowing the bids to two or three top candidates. Vendors will be re- quired to show that their equipment has been operating successfully on a similar network. They will also be required to prove that the switches and routers will be interoperable (i.e., will work together) and will work effectively on a large-scale network such as Network 21.

ATM will bring increased net- work performance, VLAN capa- bility, and the ability to interface with Internet 2 as quality of service fea- tures are developed. The star/network design of the network reduces the likelihood that a break in any one cable will impact service to the rest of the network.

Approximately 700 switches across the network, and the remainder of NAMs in Network 21 designated buildings will be cut over to the new ATM network backbone by the end of 2000.

Network 21 Billing

Department business offices will be contacted within the next two to three months to designate the accounts to which NAM fees should be charged. Charges will ap- pear on telephone bills beginning in January, with billing retroactive to July 1, 1997. Subsequent AP payments for NAM charges will be charged on a monthly basis. Instruction and Research (I&R) eligible departments will be charged $4.00 per month per NAM designated for Phase 3 cutover (or per device if the building contains no 10BASE-T facilities). Others will be charged 50% of the operation and maintenance costs ($11.87 per connection per month) for the first year. Any questions regarding bil- ling should be addressed to Com- munications Resources at 752-4603 or cr-service@ucdavis.edu.

NAM Status Database

To access the new online NAM database and the floor plans indicat- ing the location of each NAM, NAMs, go to http://cr.ucdavis.edu/ and click on “NAM Maps and Sta- tus.” The database is still under de- velopment. E-mail comments, com- ments to mjbenoit@ucdavis.edu.

Nancy Thompson, a fictional Management Services Officer (MSO) in the Department of Fore- sight and Planning Ahead. To fami- liarize herself with the Year 2000 problem, Nancy has decided to re- search what is known about her own machine and the software she runs on it so she can plan ahead and implement a course of action for Year 2000 compliance.

Starting an Inventory of Assets

Nancy uses a Power Macintosh with Mac OS version 7.6. The list she made of her system’s essential elements includes Microsoft Excel 5.0 and Word 6.0, Claris FileMaker Pro 3.0, and Adobe PageMaker 6.0. In her daily operations, Nancy ac- cesses DaFIS, the Student Informa- tion System (Banner), and the Em- ployee Database (EDB).

Conducting Research

After discussing the Year 2000 problem with her department’s Technology Support Coordinator (TSC), Nancy learns that various Web sites have already been set up precisely to help her research the problem. The UC Davis Year 2000 Web site (http://y2k.ucdavis.edu), currently under construction, fea- tures articles, reference materials, and a searchable vendor compli- ance database with information about products commonly used on campus. Status reports on the cen- tral administrative systems indicate that DaFIS and EDB applications are compliant, and that the Banner SIS application is expected to be ready by the end of 1998.

With the click of a button, Nancy goes to the UC Office of the President Web site, where a page has been created to foster sharing of relevant Year 2000 Information within the University and to refer- ence other Year 2000 documents and sites. The UC Davis Y2K site also includes direct links to ven- dors’ Web sites, where Nancy finds reports on the compliance status of various products she uses. There she reads compliance statements by:

• Apple: “The Mac OS and Apple Macintosh products do not have problems with the Year 2000.” A MacWeek article further states that “even the oldest Macs… handle the year 2000 with aplomb” (the only known systemwide data issue is that current versions of Apple’s Date and Time control panel don’t accept dates beyond 2019. That is- sue is expected to be fixed in a forthcoming Mac OS upgrade.”

• Adobe: The current versions “should be unaffected by the change to the year 2000, and will accurately represent date informa- tion within the constraints of the operating systems.”

• Claris: Nancy looks up File- Maker Pro 3.0 and learns that it will “correctly display both manually entered and calculated dates through the year 2000.” Earlier versions of 1984 were problematic.

• Microsoft: Most of Microsoft’s current products (including the Of- fice 97 suite) are set up to convert two-digit date codes between “00” and “29” to 2000-2020 dates. An Important Word of Caution

Although Nancy’s Mac and operating system are said to be compliant, a number of problems could still arise. Nancy was quick to note the broad generalities and vari- ous qualifying statements vendors make about their products’ readi- ness. The core issue lies in the for- mat used by the operating system and applications to store dates, or how the data were entered into each of the applications in her system. For example, Nancy knows that birthdates of retired employees have already been entered into an Excel document. If she updates to a Year 2000 compliant version of Excel, it will interpret these dates, which fall between 1900 and 1929, to years between 2000 and 2029. By re- searching both her applications and the form in which her data has been entered, Nancy is able to head off problems before they occur. Before upgrading to the Y2K compliant Excel, Nancy will need to convert the years in this database from 2- digit to 4-digit fields.

By conducting this preliminary research, Nancy has started to fol- low the Year 2000 5-stage plan recom- mended by the Garber Group. (An in-depth description of all the stages is available on the UCYD Year 2000 Web site.) In future I.T. Times articles, we will join Nancy as she and her TSC address similar sce- narios involving IBM PC com- patibles, UNIX systems, and applications developed by local pro- grammers.

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References

All vendors’ Web sites referenced in this article can be accessed from the UC Davis Year 2000 Web site at http://y2k.ucdavis.edu.
October

21
- Electronic Mailing List Administra-
tion: 8:30 - 11:30 a.m., TB 134.
- Web Interface to Melvyl - Advanced Class (prerequisite basic class or experience using Web version of Melvyl): 3:30 - 4 p.m., Carlson Health Sciences Library.

22
- Working in the Windows 95 Environment: 8 a.m. - Noon, TB 135.
- Fundamentals of Netctas: 1:30 - 4:30 p.m., TB 134.

23
- Library and Internet Services on the Web: 11 - 1:30 a.m., Shields Instruction Room, 2nd Floor.
- Congressional and Legislative Information on the Internet: 4:10 - 5 p.m., Shields Microcomputer Room (Rm 163).

24
- Using a FileMaker Pro Database: 1:30 - 3:30 p.m., TB 134.
- Web Publishing Working with Tables: 5 - 8 p.m., TB 134.
- Web Interface to Melvyl - Basic Commands and Features: 3:10 - 4 p.m., Shields Microcomputer Room (Rm 163).

25
- Web Interface to Melvyl - Basic Commands and Features: 11 - 1:30 a.m., Shields Microcomputer Room (Rm 163).
- Using Excel Functions: 1:30 - 4:30 p.m., TB 134.
- Web Publishing: Two-day course offered Oct. 27 & 29, 10:00 a.m. - 3:00 p.m., TB 135.
- Beyond Melvyl - Journal Article - CD-ROM Databases via the Web: 3:30 - 4 p.m., Shields Instruction Room, 2nd Floor.
- September 27
- Beyond Melvyl - Publications & PageMaker Fundamentals: 2:30 - 4:30 p.m., Shields Instruction Room, 2nd Floor.
- Beyond Melvyl - Journal Article - CD-ROM Databases via the Web: 9 a.m. - Noon, TB 134.
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November

November 3
- Hot Topics in Computer Graphics, Animation, and Video: 11 a.m. - Noon, Cabernet Room, Silo.
- Fundamentals of PowerPoint: 1:30 - 4:30 p.m., TB 135.
- Basics of Windows 95: 6 - 8 p.m., TB 135.
- Maximizing the Microsoft Office Suite: 9:30 - 11:30 a.m., 1113 Academic Surge.
- Fundamentals of Excel: 1 - 5 p.m., TB 134.
- Basics of MacOS: 6 - 8 p.m., TB 134.
- Fundamentals of Word: 8 a.m. - Noon, TB 134.
- Introduction to Eudora: 6 - 8 p.m., TB 134.
- Designing an Access Database: 9 a.m. - Noon and 1:30 - 4:30 p.m., TB 135.

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