XIII. COMPUTING AND TECHNOLOGY

Computers and technology are integral to the teaching, learning, and research activities at the Law School. Since the last site inspection, the Law School has made tremendous progress in building a technology infrastructure, expanding the use of computers in all of its facilities, and implementing a student and faculty-centered technology environment that can be used both inside and outside the classroom. In its “Most Wired Law Schools” issue, the National Jurist ranked Temple Law School 16th in the country for information technology resources.

A. Faculty

Every faculty member is provided a computer with network access, monitor and laser printer. Since the last site visit, all faculty and staff offices have been networked and connected to the Internet. In selecting a computer, a faculty member can choose between a notebook computer with a docking station or a desktop computer. For the past two years, more than 70% of the eligible faculty have selected notebook computers. The faculty computers and other technology requests are approved by the Associate Dean of Academic Affairs. The Law School’s current refresh cycle on notebook computers is four years, while desktops are refreshed after three years.

Faculty members typically have access to:

- Legal Research using Westlaw and Lexis-Nexis. The law library also subscribes to a number of electronic databases (See Section on Library) that faculty members can access from their offices.
- Word-processing software (Corel WordPerfect and/or Microsoft Word)
- Spreadsheet software (Corel Quattro and/or Microsoft Excel)
- Presentation software (Corel Presentations and/or Microsoft Powerpoint)
- Law Library catalog (Diamond)
- Internet - World Wide Web
- Email - (Eudora Client and Web based TUMail)
- Blackboard - Temple’s Course Management System
- Express0 - Law Review Submission Institutional Account

Faculty members also have access to fully computerized secretarial assistance. ¹.

¹ Since 1991-92 faculty have been offered the option of being included in either a “high-tech” or “low-tech” group. Faculty in the “high-tech” category are provided with the latest computer equipment and enhanced software capability. In exchange, they have reduced their reliance on secretarial support for day-to-day activities, and share secretarial staff with a larger number of other faculty. “Low-tech” faculty usually use recycled computers from “high-tech” faculty, but they have access to more extensive, traditional secretarial support services. Faculty may move from the “low-tech” to the “high-tech” group at any time.
In Fall 1999, the law school decided to use Blackboard as the course management system. We also decided that it would be best for our students to have all our courses on Blackboard so that the students would have one website on which to look for all course related information. This user-friendly system enables our faculty to post their class announcements and syllabus, and upload course documents to the web. It can be accessed by our students from anywhere with an Internet connection. The e-mail and the discussion board features of this system have allowed for an exponential increase in electronic communication between faculty members and students. Some faculty use Blackboard to post quizzes for their courses and to provide reference materials on topics that could not be covered in class. Also, in many sections of our Trial Advocacy skills classes, taped student performances are uploaded to Blackboard with instructor critiques. This can be viewed or downloaded any time by the student. The Computer and Information Technology (IT) department provides regular training workshops in using Blackboard. In addition, the secretarial support staff and some faculty Research Assistants are also trained in using the Blackboard and can help faculty members with their courses on Blackboard.

All of the Law School’s classrooms are equipped with some level of “smart-technology” (projectors, screens, cameras, VCR’s, Internet access, etc). This has allowed faculty members to easily use multi-media in their class. From complicated animations and Powerpoint presentations to playing movie clips, many faculty members use the technology in the classroom for their classes. Group and one-on-one training sessions for both full-time and adjunct faculty members on how to use the “smart-classrooms” are offered regularly.

E-mail is the medium of choice for communication at the Law School. All faculty members have access to Temple University’s TUMail system, that can be accessed with a client software (Eudora) on their office computers. TUMail can also be accessed via the web. Faculty use e-mail to communicate with one another regarding committee work, scholarship and the like, as well as to communicate with students and colleagues at other schools. The law faculty listserv is an active forum for discussion on a variety of topics. Beginning in fall 2003, the Law School obtained an institutional account with Express0 for article submission to law reviews and journals. About 20% of the faculty used this service during the 2003-2004 academic year to submit their articles. Their comments on the use of the system were considered by Express0 in its software enhancements.

Encouraging the faculty to incorporate technology in their teaching and research and providing the appropriate infrastructure are critical for the success of any technology infusion program. The Faculty Technology Committee, headed by Prof. Jane Baron, drives this effort at the Law School, by providing regular input into the technology planning process and also providing the Assistant Dean for Computer and Information Technology with information on faculty needs and desires.

Faculty training is vital to the Law School’s technology plan. We have divided the training into a technology track and a pedagogy track. Numerous seminars and workshops are offered on software
and classroom technology by the IT department. We also encourage peer-peer training and technology demonstration sessions. In the spring of 2004, we started an unique experiment using “instant surveys” to gauge the teaching and learning environment in a classroom. Two volunteer faculty members (Post and Baron), with the help of our IT department, created on-line “instant surveys” for two of their courses. This provided the faculty member with instant feedback on the class and insight into the topics that the class did not understand. It also elicited student opinions on whether and how technology could be used to improve the classroom experience. We plan to continue to involve more faculty members each semester in this project and enhance the teaching and learning environment at the law school. We are also conducting a pilot test of a “Classroom Performance/Participation system” software and hardware solution to enhance classroom participation.

B. Students

Computer and technology skills are important assets for our graduates as they enter and continue in the legal profession. While in the past we have urged students to have access to a computer, beginning in Fall 2003 we strongly recommended that our students have access to a notebook computer. Almost all of our first year incoming students have notebook computers.

With the implementation of an industry standard wireless network (802.11b) in Klein and Barrack Halls in Fall 2003, students now have access to all Law School resources “anywhere anytime” in both of our buildings. The wireless network is configured to allow law students access to it from all “wireless zones” in the University. The Law School also provides wired “high-speed” connectivity for student computers from more than 160 library carrels.

At the time of our last site inspection, we had five computer labs. We currently need only three computer labs – a central Student Research Lab, a Lexis Lab for Lexis training, and a Westlaw Lab for Westlaw training. The Student Research Lab now is used more as a training / printing /scanning lab. With more students bringing their own notebook computers, and with a reliable network infrastructure, we have moved away from the “lab model” to a “distributed computers” model. By providing enough access points and computers in public access areas, students can easily access any Law School resource on the web. In addition, the Law School’s PC loaner program, started in 1993, continues to allow students to borrow, at trivial cost, fully loaded notebook computers for short periods of time.

During the last four years, the Law school has increasingly provided student-related information on the web that faculty and students can access from school or home. Using Blackboard, faculty members can now easily add class announcements, syllabi, class handouts and other course related information to their course website; and these materials can be easily accessed by our students. Some students download the materials directly to their computer and annotate them for their classes, while others print them out. All the communication features of Blackboard, including e-mail, discussion groups, and virtual chats, are also used by faculty and students. The “Internet Video” project for Trial Advocacy courses allows our students to view
their trial skills performances with instructor critiques and to track their learning over the length of the course.

All law students are automatically assigned an AccessNet Id and e-mail address. This enables them to register for classes, print rosters, check financial aid information, access Blackboard and check their e-mail. All administrative announcements are communicated via e-mail, and students are expected to check their e-mail on a regular basis. TUMail, the web based e-mail system, allows students to access their e-mail from anywhere with a browser and a Internet connection.

In Fall 2000, we started offering computer based exams (CBT) for our upper-class students in select courses. In Fall 2002, we expanded the program to include all classes and all exams. For the Spring 2004 semester, more than 600 students took over 2200 exams on computers using Examsoft software. The substantial increase in students using computers for their exams has been made possible by the refurbishment of most of our classrooms to provide electrical power to each seat.

The Law Reviews and all student organizations have access to computers with Internet connection in their own offices. All Temple law journals produce camera-ready copies of their publications, before they send them to the printer. Many student organizations also create and maintain their own websites. The Student Bar Association is very supportive of the use of technology in the Law School and takes an active role in informing the administration of student needs.

Finally, all students also have access to a wide range of on-line databases through the Law Library, CALI (Computer Assisted Legal Instruction), career planning resources and other similar databases. The Law School’s IT department handles the law student support and is constantly seeking ways to expand the services available to students and faculty.

C. Administration

All administrative offices are networked and connected to the Law Administrative Network (LADNET). Each office makes extensive use of computers in day-to-day operations. The Admissions Office keeps track of the prospective students, applicants and admitted students using ADMIT-M, an integrated software application from Law Services (LSAC). This software is used by many other law schools and has helped us to better manage our applicant and recruitment information. We also use the on-line application form, and the data is directly uploaded to the Admissions database. The Admissions Office has also created a comprehensive website with information for admitted students. Admitted students also have access to a listserv/discussion board to help them in their transition to law school. The Graduate and International Programs Office use a version of ADMIT-M to manage the LL.M. programs.

Information on matriculating students is uploaded to the University’s Student Information
System (ISIS). Every semester, the data is downloaded into the Law School’s On-line Priority Registration system. This web-based system allows students to select courses for the next semester from any computer with an Internet connection. The system processes this information based on student priority numbers (numbers randomly assigned to students to assist selection of courses with limited enrollments), class year, availability, pre- and/or co-requisites, time conflicts and so forth, and develops a roster for each course. This information is then uploaded to ISIS, and students can view their class rosters on the Web. Course changes are allowed during the drop-add period at the beginning of the semester, and most changes are made on the Web.

Beginning in 1999, the Law School decided to make student grades available only on the Web. This data base can be accessed only with an AccessNet Id and password. The Registrar’s office also publishes the class rank report on the Web. The Law School IT staff works very closely with University’s administrative computer services staff to ensure that transfer of data from and to the University’s system is secure and accurate.

The Career Planning office uses computer technology extensively, from keeping track of job postings to scheduling on-campus interviews. The E-Attorney system is used to help students select and register for on-campus interviews. The firm bidding process and interview scheduling is also done by this Web-based program. EmplawyerNet provides our students with access to a nationwide list of job postings along with our own (Temple) job postings. This service allows students to tailor their profiles so that the system will automatically e-mail the student whenever there are postings that match the student’s profile. The Law School also subscribes to Attorney-Jobs online to provide our students with additional job listings. The Career Planning Office has also developed a Web-based judicial clerkship database and registration system to help our students to apply for judicial clerkships. The Career Planning Office also subscribes to a number of on-line directories and provides video conferencing facilities for interviews with out-of-state employers.

To comply with the “Y2K (year 2000)” issue, Temple University purchased an alumni development system “Millennium” from JSI Systems. The Law School moved its data to this new system to take advantage of its enhanced capability. Despite some initial problems, we have now been using the “Millennium” system for all our alumni data transactions and reporting. In addition, the Law School website provides information for our alumni. Electronic communication has become a key to keeping in touch with our alumni, and we plan to create an on-line alumni newsletter to foster stronger connection with the law school.

As described more fully in the section on the Law Library, we integrated the law library cataloging system with the Temple University Library system in 1999. The Law Library data is “scoped” to allow direct access to the data by law library staff, faculty and students. The Assistant Dean (IT) and the Director of the Law Library work very closely with the University Library staff to ensure proper functioning of the library system.
With classes being held in both Klein and Barrack Halls, it is necessary to provide the same information on events, class cancellations, make-up classes, etc., in both buildings. Information monitors spread across Klein and Barrack Halls provide this information daily. Conveniently located touch screen kiosks with a web-based interface provide students easy access to grades, rosters, class assignments, news, etc. We are also currently working on redesigning the Law School website to provide better navigation, state of the art design and tools to easily retrieve information.

**D. Staffing and Infrastructure**

The Assistant Dean for Computer and Information Technology is assisted by an Information Resources Coordinator, who deals primarily with training and student computing; a Computer Supervisor, who assists with computer hardware and software installation and trouble shooting; and a Media Services Assistant who assists with all audio-video setups and smart classrooms.

For the past several years, the Law School has focused its technology investments primarily on network and classroom technology infrastructures. The wired and wireless network enables our students to connect to the Law School’s electronic resources with ease. Providing electrical power to each seat in most classrooms has enabled us to offer computer-based testing and allowed students to use their computers in the classroom. Since all of our classrooms are “smart” classrooms, faculty can easily offer multimedia presentations in any class. We have also moved many of our applications to web-based apps.

**E. Future Challenges**

As we plan for the future, the challenge for us is to identify key technologies and match them to opportunities, while maintaining a strong level of support. Despite limited resources, the Law School has tried to stay ahead of the curve and use technology tools effectively. With the increased use of computer technology in all facets of law school teaching, research, learning and administration, the need for good technical support, training and reliable infrastructure is critical. Deficiency in any of these aspects will affect the confidence in technology.

Our challenges include:

- Hiring and retaining competent support staff to maintain a high level of support;
- Training and keeping the staff up to date in new technologies;
- Training faculty members with a range of technical skills, aptitude and inclination to use technology inside and outside the classroom;
- Integrating technology into the curriculum;
- Converting legacy applications to current state of the art technologies;
- Working closely with University computer services to monitor and maintain reliable network and classroom infrastructure;
Providing continuous funding cycle for upgrading/refreshing hardware and software and infrastructure.

We intend to meet these challenges and continue our efforts to expand our information technology resources to satisfy the teaching, research and learning needs of our faculty and students.