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ESSAY

PLANNING AND DECISION-MAKING FOR LAW SCHOOL INFORMATION TECHNOLOGY

Donald J. Polden†

American law schools are increasingly turning to information technology¹ (IT) systems to accomplish a variety of important institutional objectives, such as preparing law students for the use of technology in the practice of law, improving communication within the law school community, and extending the geographic reach of faculty and student research and scholarship.² Additionally, these

† Dean and Professor of Law, University of Memphis. Earlier versions of this paper were delivered at the New Deans' Workshop in Winston-Salem, North Carolina in June of 2001, and at a meeting of the Southeastern AALS in Panama City, Florida. The author benefited greatly from sharing the podium at these conferences with real "visionaries" in the introduction of information technology to the law school, including Deans Jonathan Varat, Janice Griffith and Joan Wexler, and Professors Bob Berrens, Steve Nickles, and Richard Wright. Professor Kevin Smith of the University of Memphis School of Law and Deans Larry Dessem and Joe Tomain provided helpful comments on an early version of this Essay. Jim Penrod, Vice President of Information Systems and CIO at The University of Memphis, provided excellent insights into the importance of and techniques for planning for information technology. Of course, they remain blameless for any bad advice or errors in this Essay. Comments regarding the Essay are encouraged and can be sent to the author at djpolden@memphis.edu.

1. A brief note on the meaning of the term "information technology" may be helpful. Obviously, the first, and most basic, information technology is handwriting. Today, however, we tend to include within the description of "information technology" the application of computer hardware and software, networks, Internet facilities and telecommunications (voice and data) transmission systems to human processes for communication, analysis and information distribution. For a thoughtful description of the transformation of information technology from the printing press to its most modern manifestations, see Ethan Katsh, *Law in a Digital World: Computer Networks and Cyberspace*, 38 VILL. L. REV. 403, 405-09 (1993).

2. See Michael L. Dertouzos, *Communications, Computers and Networks*, SCI. AM., Sept. 1991, at 62, 69 (stating that an information infrastructure can assist an organization in relieving many of the repetitive and boring tasks, help improve the way we do things by speeding up and improving existing processes, and cutting through geographic barriers). See generally Nicholas P. Terry, *Bricks Plus Bytes: How 'Click-and-Brick' Will Define Legal Education Space*, 46 VILL. L. REV. 95 (2001); Richard Matasar & Rosemary Shiels, *Electronic Law Students: Repercussions on Legal Education*, 29 VAL. U. L. REV. 909 (1995); Richard A. Danner, *Facing the Millennium: Law Schools, Law Librarians, and IT*, 46 J. OF LEGAL EDUC.

systems are redefining the ways that law students are taught, access legal information, and seek employment.³ Legal educators, like their colleagues in other colleges of the university, are applying IT in many areas of the law school's mission and goals to advance their intellectual and professional interests.⁴ The movement toward IT in the law school, however, is expensive, complex, and requires the redesign of institutional decision-making and communication processes. Leaders in legal education must pull together many internal constituencies to plan for, implement, and ultimately apply IT solutions consistent with the purpose, ambition, and financial resources of the law school.

This article articulates some general perspectives by a chief administrator of a law school that has introduced IT systems into the communication, research, and education functions and goals of the school, and has been utilizing these systems for several years.⁵ Planning for IT requires a variety of skills and capabilities that many law school administrators have not developed through prior training or experience. This Essay does not intend to address all of the issues, problems, and pitfalls associated with an institutional commitment to IT systems; rather, it explains that the important skills can be developed and applied to the process of introducing and maintaining

43 (1993) (exploring issues associated with the roles that information technology can play in law schools and legal education).

3. See Paul F. Teich, *How Effective is Computer-Assisted Instruction? An Evaluation for Legal Educators*, 41 J. LEGAL EDUC. 489, 490 (1991).

4. See Katsh, *supra* note 1, at 408-10.

5. During a short period of time, The University of Memphis School of Law wired the building with cable and optic fiber, networked the faculty and staff on one network and two student computer labs on another network, and installed new computers in the student labs and faculty and staff offices. It also opened negotiations for installation of an on-line cataloging and serial management software system in the law library, and trained key administrative personnel on the FRS, SIS Plus, and specialized law admission process software systems. The responsibilities of the library director were changed to include management of information technology systems. A faculty and administrative staff committee is planning the next steps in the law school's information technology development, including technology in the classroom, the use of wireless technology, the next generation of software in administrative use, and the budget and fiscal implications of IT plans. The committee also will consider the development of the third generation of the law school web site and methods of extending the law school network into a regional legal community. This process of introducing technology into the life of the law school is probably typical of many other American law schools. Most have traversed, or are in the process of traversing, from individual PC use through integration of individual PCs via network to the current web platform networking, whether by intranet or otherwise. These technology changes have created in each law school a culture of and processes for technology decision-making that will affect their ability to adapt and change as technology changes. The Essay intends to assist schools in examining those processes and, to the extent necessary, change and improve the culture for information technology decision-making within the law school.

IT in law schools.⁶ Section I briefly describes the uses of IT in the law school while section II describes the various users of that technology. Section III addresses the major challenges associated with introducing technology into the law school. Finally, Section IV concludes with some suggestions for improving technology decision-making in the law school.

I. INFORMATION TECHNOLOGY IN THE LAW SCHOOL

The advent of information technology in a law school presents tremendous opportunities for the law school faculty, staff, and students.⁷ IT can improve communications between community members, link faculty with colleagues in other schools and disciplines, and foster greater research and scholarly opportunities for faculty and students.⁸ IT systems can also promote the administration of the law school by facilitating class scheduling, recruiting and matriculating students, and developing institutional discourse, among other goals. These systems can further improve the delivery of professional services to law students and alumni, for example in the areas of student and law firm career services.⁹ Perhaps most

6. Information technology in higher education institutions necessarily includes at least two “generations” of issues and problems. The “first generation” involves the introduction of the technology into the culture of the school, arranging the financing of the installation of the systems, and initiating the operation of the systems within the institution. After their introduction, information technology systems create a variety of “second generation” issues, including methods of supporting the technology, extending its effectiveness, planning for maintenance and depreciation, and upgrading and supporting the technology. This Essay addresses decision-making and planning processes applicable to both first-generation and second-generation issues. The process of planning for first generation issues will necessarily assist in addressing second generation issues, and the decision-making and organizational issues are common to both stages of IT development. The approaches to first generation problems advocated in this Essay—cooperation, new decision-making structures and processes, and new organizational approaches to accommodate IT—also evolve as the institution moves into its second generation of IT systems and challenges. More fundamentally, these approaches will be helpful to law school leaders as new paradigms of information technology are created and applied to higher education institutions and to legal education.

7. See Robert H. Thomas, “*Hey, Did You Get My E-Mail?*” *Reflections of a Retro-Grouch in the Computer Age of Legal Education*, 44 J. LEGAL EDUC. 233 (1994) (describing the “virtual law school” of the future and listing various uses of computer-based information technology, such as e-mail instruction, research, reasoning processes, and others).

8. See John F. Chizmar & David B. Williams, *Altering Time and Space through Network Technologies to Enhance Learning*, 19 CAUSE/EFFECT 14 (Fall 1996) (listing some of the learning activities possible in a networked academic computing environment), available at <http://www.educause.edu/ir/library/pdf/CEM9634.pdf>.

9. See, e.g., Gina Rowsam, *The Technological Transformation of Legal Recruitment and Career Services*, INSIGHTS, NALP 1997, at 4–6 (describing various uses of information technology systems to law student job searches).

important, these systems can assist in the development of new media for teaching law students and improving the quality of learning in the classroom.¹⁰

The use of IT in the American law school parallels, and in many instances is supported by, the application of IT equipment and systems in the modern American university. Universities are attempting to harness the considerable power of IT systems—whether in organizing its workforce or supporting its library—while managing their scarce resources.¹¹

The introduction of IT into the law school involves changes at a more profound level than facilitating communication, teaching, and research. Technology affects how information—including legal information—is organized and distributed, and, indeed, may contribute to changes in the law itself.¹² Further, the acquisition and distribution of IT systems can even redefine the physical space and functionality of the law school itself.¹³

Introducing IT systems in a law school also presents a number of difficult issues for most schools.¹⁴ Organizational problems may arise

10. Compared with students enrolled in conventionally taught courses, students who [use] well-crafted computer-mediated instruction (CMI) materials generally achieve higher scores on summary examinations . . . , learn their lessons in less time . . . , like their classes more . . . , and develop more positive attitudes toward [the subject matter they're learning]. These results hold for a broad range of students, stretching from elementary to college students, studying across a broad range of disciplines, from mathematics to the social sciences to the humanities.

Warren Baker et al., *Technology in the Classroom: From Theory to Practice*, 32 EDUCOM REV. 42 (Sept./Oct. 1997), available at <http://www.educause.edu/pub/er/review/reviewArticles/32542.html>; cf. Teich, *supra* note 3, at 490–91 (reporting that research on computer assisted instruction shows that it can improve student learning, particularly when it is used in conjunction with conventional methods of instruction). See also William R. Solmanson, *Electronic Lawyering and the Academy*, 48 J. LEGAL EDUC. 216, 220–27 (1998).

11. Brian L. Hawkins, President of EDUCAUSE, recently stated: “Technology is breaching the traditional disciplinary boundaries through which the institutions are organized and through which information is categorized and accessed. It has challenged and made obsolete many current practices of providing library services, budgeting resources, defining student constituencies, and handling tenure decisions, for example.” Brian L. Hawkins, *Information Access in the Digital Era: Challenges and a Call for Collaboration*, 36 EDUCAUSE REV. 51 (Sept./Oct. 2001), available at <http://www.educause.edu/ir/library/pdf/ERM0154.pdf>.

12. Katsh, *supra* note 1, at 409–10.

13. Terry, *supra* note 2, at 108–12.

14. Danner, *supra* note 2, at 44–48 (observing that information technology in law schools presents pervasive challenges requiring new and creative institutional responses. These challenges are to the administration of the law school, to the organizational structure of the institution, and to the fiscal integrity of the school).

because of conflicts between user interests and the school's technology capabilities, between competing demands of the budget, and between traditional and technology related methods of instruction and research.¹⁵ Technology can also implicate accreditation standards and compliance, particularly with respect to the law library¹⁶ and the institution's standards for academic honesty.¹⁷

New organizational structures must often be created to address the introduction of the new technology into the law school.¹⁸ New leadership and decision-making structures are being created at many universities to introduce IT systems to the campus and to lead the university as a whole to a greater, wiser investment in these systems.¹⁹ This movement, however, occurs at a time when many law schools—both public and private—are experiencing budget cuts, resource retrenchment, and program down-sizing. These national trends impose considerable difficulties on law school administrators.²⁰

The next section briefly describes the principal actors in the process of introducing and promoting the application of IT systems to successfully satisfy the functions and goals of the modern law school. Although general in nature, the typology of IT users is important to the proper construction of decision-making processes in the law school, and to an understanding of how individuals within the law school can promote or retard the uses of technology for institutionally important purposes.

15. See Robert Hahn & Gregory Jackson, *The Keys to Wise Investments in Technology*, CHRON. HIGHER EDUC. May 26, 1995, at A44.

16. Gail M. Daly, *Law Library Evaluation Standards: How Will We Evaluate the Virtual Library?*, 45 J. LEGAL EDUC. 61, 64–65 (1995).

17. David J. Shakow, *Computers and Plagiarism*, 42 J. LEGAL EDUC. 458 (1992) (pointing out that on-line databases make plagiarism and the detection of plagiarism easier and, therefore, forcing instructors to think more clearly about what they want their students to do and refrain from doing in accessing and presenting information). See also Marie Groark et al., *Term Paper Mills, Anti-Plagiarism Tools, and Academic Integrity*, 36 EDUCAUSE REV. 40 (Sept./Oct. 2001) (reporting an increase in academic cheating and use of computers to cheat, but suggesting that the culture of the institution may be a more significant determinant of cheating than prevalence of computer use), available at <http://www.educause.edu/ir/library/pdf/ERM0153.pdf>.

18. See Lee Sproull & Sara Kiesler, *Computers, Networks and Work*, SCI. AM., Sept. 1991, at 116.

19. Thomas Vernon, *Higher Education's New High-Tech Executives*, 23 PLAN. FOR HIGHER EDUC. 8, 9 (Fall 1994).

20. See Richard C. Reuben, *State Law Schools Squeezed for Cash*, ABA J., Apr. 1994, at 32; Daly, *supra* note 16, at 65–68.

II. A TYPOLOGY OF INITIAL RESOURCES: USER TALENTS AND INTERESTS

Organization theory informs that most groups possess a variety, and different degrees, of skills and talents that can be applied to a new task, function, or technology. The introduction of contemporary IT systems (for example, personal computers linked through networks) is fundamentally no different.²¹ It is possible to provide a general nomenclature for the structure of the law school workplace when IT is introduced to its participants. This nomenclature includes the principal actors in the institution and their use of IT. These actors include the following:

- *Users.* Virtually everyone in the law school is a user of technology. There are academic users and administrative users, there are users with technical curiosity and others that simply want to turn the switch. Further, there are varying *intensities* among users—some will use technology for word processing and others will use it for data manipulation; some will use it for basic communication and others for research and scholarship; some use it to check their stock portfolios; and others create communication systems for all students in their contracts class.

- *Techies.* There are usually people in the school who are technologically proficient and capable and who have a strong interest in acquiring new technology simply because it is new and it is technology. Techies may be faculty or staff members, but most commonly they are network administrators or computer staff people. Techies are always users, but not all users are techies.

- *Visionaries.* Many organizations considering or using IT systems include visionaries. Visionaries have the ability to understand what IT systems can mean to the way students are educated, the way that information is communicated, and the ways that administration of the organization becomes more efficient through application of IT systems.²² One role of visionaries is to

21. See Lawrence Tesler, *Networked Computing in the 1990's*, SCI. AM., Sept. 1991, at 86 (describing the evolution of computer use and users from the 1960s through the 1990s). Perhaps, more important, Tesler points out that computer use will become more significant in the future by playing a more active role in "collaborating with the user." *Id.* This vision of the future of computer use involves an evolved and evolving technology user of evolving types of increasingly sophisticated computer equipment and information technology systems.

22. NOEL M. TICHY & MARY ANNE DEVANNA, *THE TRANSFORMATIONAL LEADER: THE KEY TO GLOBAL COMPETITIVENESS* 130 (1990). According to Tichy and Devanna, the roles of visionaries include providing "a conceptual framework or paradigm for understanding the organization's purpose" and providing "a motivational pull with which people can identify." *Id.*

focus group attention on why IT is important to the institution's mission (for example, legal education, research and scholarship, etc.) and why it promotes effective institutional decision-making.²³ Visionaries are almost always users, but they may, or may not, be techies.

- *Resource gatherers.* Another type of individual—the “resource gatherer”—completes the organizational structure of the modern IT-oriented law school. These individuals are usually close to the dean's office and commonly include the dean, directors of the law library, development officers and assistant deans for budget or administration. Their chief function is to promote the fiscal integrity of the information infrastructure and acquire the resources needed to achieve institutional goals and maintain the system. Resource gatherers, however, may also include faculty or staff members who write grants or seek private or governmental support for IT research or other research requiring the use of IT. Resource gatherers may be, but often are not, visionaries, and are almost never techies.

This general description does not exhaust the various individuals involved in the application of IT in law schools, but it does describe the general typology of individuals whose uses for, and therefore interests in, IT systems advance law school efforts to develop IT capabilities.²⁴ Moreover, it may be a fair description of the types of individuals who are involved in decision-making and planning at the law school, and with whom the dean (or IT planning leader or group) must consult in planning for IT implementation at the school.

The need for a clear vision for the application of information technology systems is particularly great in higher education, where the impetus to change and the resources to support and encourage change often are in short supply.

23. See Mark Lipton, *Demystifying the Development of an Organizational Vision*, SLOAN MGMT. REV., Summer 1996, at 83–92 (discussing the important role of visionaries in today's organizations).

24. Most schools also have a few faculty or staff members who defy easy characterization. These “iconoclasts” will surely test the resolve of IT leaders and virtually always serve as a brake on progress. There may be a few Luddite/“computer phobes” who refuse to learn how to turn on a computer. Indeed, there are reports of these folks destroying computers with a sledgehammer. See, e.g., G. Pascal Zachary, *Digital Age Spawns 'Neo-Luddite' Movement*, WALL ST. J., Apr. 12, 1996, at B1, B4. Or, the school may have a “rugged individualist” who disdains communications from colleagues, harbors irrational fears about the advent of the technology age, and will not hook up with the network.

III. INFORMATION TECHNOLOGY DECISION-MAKING IN THE LAW SCHOOL ENVIRONMENT

These various actors in the law school organizational structure can make decision-making complex and challenge the most experienced senior administrator. Several challenging issues that directly affect the ability to make meaningful decisions regarding investments in IT are implicated by the presence of these actors within the law school. Those issues, revolving around the implications of and planning for the law school investment in IT, include the following:

- *Purpose and functionality.* How can efficient, institution-wide priorities be established between competing administrative and academic user groups? How will the fundamental culture of the institution be affected by introducing IT systems? This technology can improve teaching and learning, but how will those improvements be measured, and what tensions will arise from a resistance to change?

- *Communication and identification of common interests.* How does a dean get the techies and visionaries talking with resource gatherers about institutional values? It is often difficult to get everyone "reading from the same page" with respect to articulating standards for the introduction and maintenance of IT systems into the law school. Thus, what type of changes to basic communication approaches within the law school will facilitate the embracing of a common or shared commitment to IT?

- *Assessing costs and generating new resources.* How does the dean estimate the real resource costs of IT in the school? Investment in technology is often made without any meaningful assessment of the costs associated with the project. Networks need managers, faculty and staff need training, and equipment depreciates. This takes money, budget, and a planning process that addresses both budgetary concerns and strategic planning.

- *Creating processes to address technology issues.* How can the dean or technology leader bring the various user groups together to initiate planning for IT systems? Obviously, these individuals have different levels of expertise in the use of IT systems and the success of the school requires successfully creating new processes, or adapting existing processes, to address IT issues. Are there processes that are particularly conducive to the introduction of new and changing technology systems into the law school? What can law

schools learn from university leaders and from private institutions about the planning and decision-making processes?

- *Assessing the effects of the new technology.* Since educational institutions are responsible to state governments, trustees, and students for their pedagogical and operational policies, how will those institutions assess the effects of recently introduced technology? How can the educational institution gather meaningful information from other institutions on the impact of the new or changed technology? How will the law school use information gained from its IT self-assessment and from collaborative information sharing with other institutions?

Many of these questions have no easy answers. Successful integration of IT systems, however, will depend on how the law school addresses these issues and answers these questions. The next section provides some general answers and poses some tentative thoughts about these issues.

IV. ADDRESSING THE ISSUES OF INFORMATION TECHNOLOGY DECISION-MAKING

There are many ways to address the problems associated with, and the impacts of, the introduction of IT systems in the law school. A careful assessment of the personnel working on the process, thoughtful planning for the introduction and management of information systems, and a willingness to solicit assistance and support for the IT mission are generally required to adequately mitigate these problems. The following provides some advice on how to address these problems and issues.

A. Be realistic about what the investment in information technology can do for the school

There is often a tendency to assume that IT will resolve all communication, organization, and scholarly output problems at the school. On the other hand, some believe that IT will do nothing to bring the faculty and staff into closer communication and will merely be an investment in a fad. The truth, in most cases, lies somewhere in the middle, but probably closer to the first theology. It bears repeating, however, that IT will not solve all issues.²⁵ At a minimum,

25. Hahn & Jackson, *supra* note 15. The authors make the point that the benefits of information technology should not be confused with the economies of information technology systems. Indeed, there is reason to believe that the institutional commitment to information technology in universities is becoming increasingly expensive—in both absolute and incremental

the importance of IT may be oversold and, thus, blind us to rational decisions about modern legal education.²⁶ Therefore, planners and decision-makers must perform a careful and open assessment of the purposes for the technology and the functions it can perform at the school.²⁷

B. Be sensible about how quickly projects can be accomplished and how their effects will be experienced by the faculty, staff and students

Realization of the full effects of technology may take a long time; so all users must exhibit patience. It is particularly incumbent on technology users to develop patience concerning the rate at which the uses of technology are shared and inculcated into the law school. Patience, however, is often in short supply when new technologies are being introduced into the institution (particularly if they are replacing existing technologies), when technology support falls short of user expectations (or needs), and when users and techies cannot communicate effectively.²⁸ Institutional technology leaders must, therefore, effectively communicate realistic timetables and help develop realistic user expectations. One of the most effective ways of accomplishing this goal is to periodically communicate (via e-mail or intranet) with all law school faculty, staff, and students on plans and developments regarding law school technology. Similarly, publication of the IT plan on the law school's web site is another valuable form of communication.

C. Anticipate change in technology

Technology, as universally acknowledged, changes at an incredibly rapid rate. For most budget-conscious administrators, that

costs—while the case for the effectiveness and pedagogical usefulness of the technology is still being built. *Id.*

26. See Morris L. Cohen, *Research in a Changing World of Law and Technology*, 13 *DALHOUSIE L.J.* 5, 9–10 (1990).

27. See, e.g., UNIV. OF DAYTON SCH. OF LAW & MEAD DATA CENTRAL JOINT COMM., INTERIM REPORT OF THE UNIV. OF DAYTON SCH. OF LAW AND MEAD DATA CENTRAL JOINT COMM. TO STUDY COMPUTER TECHNOLOGY IN LEGAL EDUCATION, 4–5 (1993), available at http://www.law.cornell.edu/mdc_udsl/toc.html (last visited Apr. 24, 2002).

28. See Gregory A. Jackson, *Ya Can Talk All Ya Want, But IT's Different Than It Was: Conundrums in Support of Information Technology*, 36 *EDUCAUSE REV.* 16 (Sept./Oct. 2001) (describing some of these “disconnects”), available at <http://www.educause.edu/ir/library/pdf/ERM0151.pdf>. Jackson also uses the familiar “Who’s on First?” skit, made famous by Abbott and Costello, to caution IT staff about the importance of effective and clear communication with IT customers. *Id.* at 22.

can be a disturbing thought. It can also be liberating, though, by promoting faster decision-making in the law school. When decision-makers realize that choices concerning hardware, technology infrastructure, and software are not immutable, and that technology changes are inevitable, they can simply incorporate change and the prospect of errors into the planning and decision-making processes.

Changes in technology in the next decade will likely be more profound and far-reaching than the changes we have experienced in the past decade. IT applications and systems have evolved quickly from basic computer technology through stages or paradigms of networked computer systems leading to the current web based technology. We are entering a paradigm of integrated communication and IT systems, wireless technology, and collaborative knowledge and information sharing structures.²⁹ There is every reason to believe that the rate of change in technology capabilities will continue to increase, thus escalating the profound nature of these changing paradigms. Law school leaders, therefore, must learn to manage that inevitable change.³⁰

D. Study other information technology systems and build full costs into budgets

Effective budget planning for IT systems requires consideration of installation, planning, training, maintenance, and replacement costs. Technology can quickly become one of the most expensive operating costs in the law school budget, and effective budget controls are essential to effective financial decision-making in the law

29. See Terry, *supra* note 2, at 139–40 (arguing that a confluence of factors—the development of technology and e-commerce capabilities, competitive pressures on law schools, and growing resource issues facing law schools—will lead law schools to more clearly and fully integrate and apply Web-based technology into the law school curriculum and planning for their futures). Terry cautions, however, that the law school’s use of computer technology, to be successful in competing with distance learning law schools now just on the horizon, must be “deep-seated and robust.” *Id.* at 139. The legal education future that Professor Terry envisions will require considerable expertise and careful planning by today’s law school deans and information officers.

30. [M]anaging change is itself a technique, and a technique that can be taught like any other, but it is commonly ignored as teachers assume that the information retrieval techniques of today (or even worse, of yesterday) will be those of tomorrow. In order to avoid this trap, instruction should emphasize the skills and strategies of dealing with change.

Katsh, *supra* note 1, at 484–85, (quoting Virginia Wise, *Managing Information Inflation, in* EXPERT VIEWS ON IMPROVING THE QUALITY OF LEGAL RESEARCH EDUCATION IN THE UNITED STATES 122 (1992)).

school.³¹ These decisions are easier with adequate information about available computer and other equipment and technology systems. Perhaps the most sensible suggestion about budgetary planning is to establish a life cycle funding plan. This is a plan for continuous replacement of computers at the expiration of their expected life span and taking advantage of enterprise software licensing agreements.³² Institutions can achieve significant cost savings by planning for equipment purchasing, leasing or a combination of both and then building these expected costs into the base budget, like payroll and operating expenses.

E. Encourage participation and involvement of various user groups in planning and implementing information systems

A variety of methods exist to elicit participation and involvement of the various user groups and individuals in the processes of planning and decision-making concerning institutional IT systems. One traditional approach is to assemble a user committee to work with the dean and others in making decisions about the introduction of IT. The committee (or workgroup) may include students as well as staff and faculty, and the members should be asked to address important issues of equipment and software standards, training for the new technology, and planning for the system. Similarly, users should be involved in groups that engage in both long-term planning for technology and for short-term, operational decisions or recommendations to the institution's decision-maker.

The more important task of the law school dean or IT visionary is to create an organization where all participants in the educational enterprise are encouraged to learn about the utility of IT systems and their applicability to teaching, research and service functions of the law school.³³ These so-called "learning organizations" encourage the

31. Danner, *supra* note 2, at 52.

32. Laurie G. Antolovic & Michael A. McRobbie, *Implementing Life-Cycle Funding*, 36 EDUCAUSE REV. 28, 30, 35 (Sept./Oct. 2001) (describing the implementation of a life-cycle plan by Indiana University), available at <http://www.educause.edu/ir/library/pdf/ERM0152.pdf>. Life-cycle funding requires a careful assessment of buying versus leasing options and seeks to fund technology projects over the useful life of the hardware or software. It is superior to the full project funding approaches used by most higher education institutions. Law schools, however, are often dependent upon their University's Information Systems office for equipment and software funding, so they may not be in a position to unilaterally implement a life-cycle funding approach.

33. See Danner, *supra* note 2, at 53–55 (discussing various options available to law deans and information leaders in reposing responsibility for information technology functions, operations, and planning); see also Gary L. Donhardt, *Participative Planning: A Call for*

development of organizational skills that promote the goals of the institution while encouraging and fostering the personal development of employees.³⁴ The institution's leader must create "classrooms" to teach others—staff, IT specialists and support personnel, and key faculty—about the vision for the institution's future and how change will, and must, happen for the institution to grow and succeed. This leader must encourage a healthy discussion about purpose, function, and how individuals should be aligned so that their work promotes accomplishment of the institution's strategic vision.

F. Invest the law school IT leaders and planning groups with responsibility for making or assisting in the making of decisions about technology

The law school dean can employ many methods to effectively invest the various user interests with responsibility for IT decision-making. These groups or individuals can have responsibility for budget decisions (such as equipment, software or process purchases), for articulating training and staffing needs, for representing the law school on university or community technology groups, and for monitoring the effective utilization of IT systems. The groups can engage in strategic (or long-range) planning or they can meet to advise the dean or IT leader on specific IT issues at the school.

How a law school approaches these decisions depends upon its past practices and the culture of the institution. But every school, at a minimum, should do two things. First, it must involve users in a discussion or learning process about IT at the law school. Second, it must regularly engage in thoughtful planning for its technology future.

Planning for IT is a complicated, yet institutionally vital, activity. Most law schools engage in some form of planning: it can be long-term, short-term, or strategic; it can be fostered by the University budget process or by an ABA accreditation visit; it can be embraced by many in the school or it can be the responsibility of only one or a few people. Regardless of how planning is done, IT needs to be an integral part of the law school's planning process, and, indeed, a case can be made for an entirely separate planning process for IT.

Building Partnerships for Change, 16 CAUSE/EFFECT 47 (Summer 1993) (advocating the use of cooperative partnerships in higher education planning efforts), available at <http://www.educause.edu/ir/library/text/CEM9329.txt>.

34. See DAVID A. GARVIN, *LEARNING IN ACTION: A GUIDE TO PUTTING THE LEARNING ORGANIZATION TO WORK* (2000); PETER M. SENGE, *THE FIFTH DISCIPLINE: THE ART AND PRACTICE OF THE LEARNING ORGANIZATION* (1990).

Planning for IT basically forces the articulation of a cohesive vision for IT at the school, improves the knowledge base and self-confidence of those who carry out the IT function, and provides an informed context for allocation (or reallocation) of resources.³⁵ Thoughtful planning may improve the image of the organization, and, if successfully completed, may assist in generating new resources or support for the institution.³⁶

G. Periodically assess the effects of introducing information technology to the law school environment

The law school should regularly engage in a thoughtful analysis of the successes and failures of its IT systems, the price it is paying for its systems, and the future outlook for IT at the school. This analysis can occur through the creation of a special group, either in the dean's office or as part of a strategic planning process. Inviting the University CIO to informally evaluate the law school's strengths and weaknesses in the areas of technology processes, and report to the dean or IT planning committee on the status of the law school's application of IT, can also be useful.³⁷

Periodic assessment is especially important in two critical aspects of the law school IT plan: (1) evaluating the adequacy of support for technology and (2) planning for the next stage or platform of IT.³⁸ Deans, information officers and law school techies should be evaluating the quality of their support of technology services on a regular basis through the use of user surveys or focus groups.

35. James Penrod & Thomas W. West, *Strategic Planning for Computing and Communications*, in *ORGANIZING AND MANAGING INFORMATION RESOURCES ON CAMPUS* 117, 118-19 (Brian L. Hawkins, ed., 1989).

36. *Id.* at 119. Professor Richard Danner also made the point that the most significant aspect of institutional decision-making about information technology is a determination of how important information is to the institution's ability to accomplish its mission. Danner, *supra* note 2, at 52-53. Indeed, the articulation of an institutional mission must be a central and driving factor in information technology planning and in technology budgeting. Danner explained that: "What it comes down to is the need for the law school to have a networking strategy that aligns investments in computing to the goals of the school and shows how networking will contribute to the school's performance in meeting its goals." Danner, *supra* note 2, at 53.

37. My thanks to Jonathan Varat for reporting this idea. At the University of Memphis, key university Information Systems staff meet annually with law school information technology staff to review the law school IT initiatives, programs and planning. The purpose of the visit is to offer assistance and advice to the law school, identify ways to support the law school's IT planning and operations, and gather information about the effectiveness of the University's campus-wide support of information technology.

38. Jackson, *supra* note 28, at 18 ("Success in IT support therefore requires self-analysis, clear communication, and pragmatism."); *see also* Danner, *supra* note 2, at 50.

Further, the law school's planning group should evaluate the existing technology infrastructure (networks, Web access and browsers, hardware, etc.) on a regular basis to assist in planning for the next generation of law school technology.

IV. CONCLUSION

These are exciting times for IT users in law schools. The power and scope of IT in higher education are growing at accelerating rates, and the use of technology in the traditional competencies of the Academy—teaching, scholarship, and community and professional service—is becoming commonplace. These are also times that challenge law school administrators and tight budgets. Higher education is experiencing the powerful transformation of IT through the Internet-based paradigm into the digital paradigm. Further, as tuition increases and technology access fees increase, university IT leaders must improve support for a more student-centered technology environment. At the margin of legal education, private education corporations are sponsoring experimentation in “virtual” legal education causing the traditional notions of legal instruction and student/faculty communication to be reexamined and challenged.

Law school IT leaders are learning that more sophisticated organizational structures and better internal communication capabilities are needed than any that the schools currently have in place. Therefore, the leaders are exploring ways of assembling effective groups of technology users to introduce IT into the law school and further extend it to the next level of understanding and functionality. For many law schools, though, the traditional decision-making and governance structures are not appropriately designed for the rapidly changing world of IT. New structures must be designed, implemented, and funded to support the law school's investment in technology.

The development of these decision-making structures and institutional capabilities demands careful planning by the dean, staff and faculty, and a widely shared commitment to advancing a realistic use of IT in the law school. This is hard work, for which administrative leaders in the law school often lack the basic planning skills and the necessary information about technology to design appropriate planning and decision-making processes. The payoffs for the school, however, particularly in its abilities to achieve the great promise of IT, are significant enough that the enterprise should be nurtured and promoted.

