Personal Computers and the Practice of Law

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The legal profession was one of the first groups to recognize the value of technology and office systems. Recent growth in personal computers in our society will have an even more dramatic effect on the legal profession. Many lawyers have acquired personal computers for uses other than their professional activities, the overall impact of which has been to create a series of unanticipated questions relating to their introduction and use in the law office. The purpose of this article is to place personal computers in perspective and define their role as tools for the legal profession.

The first part of this article will discuss planning and buying personal computers for the law office. Included is a discussion of personal computer hardware/software configurations and applications. The latter part of this article outlines future requirements and legal practice applications that should be understood to develop an overall plan for the use of personal computers in your firm. Many firms today have developed their office systems over time, without the benefit of planning, but the continued introduction of personal computers will require that law firms implement some degree of planning. The role of planning, especially where the investment in technology will be significant, is to reduce the need for experimentation. Many large corporations and governmental institutions have the resources and the time to develop extensive plans, pilot technology programs and application development, while most law firms cannot afford the luxury of pilot programs and extensive development. The time and effort invested in planning office systems greatly reduces the problems frequently associated with the introduction and implementation of technology in the law office. There are several excellent sources for understanding, developing, and writing technology plans for law firms. A list of publications related to planning is included at the end of this article.

Once a written plan has been agreed upon, the next step is the identification of personal computer vendors that can best meet the firm's objectives. Recently, financial stability in the personal hardware business has made the hardware selection difficult. Should the software be chosen that best suits the firm's needs or should the hardware be chosen, and the software selected later. As a result, the process should be to select first a hardware vendor whose financial stability will offer some guarantee for the future. It will be far easier to find software for stable hardware vendors than to have to shop for hardware that is compatible with the firm finally selects. The personal computer hardware consists of a display, a processor, storage device, printer, and keyboard. There are many different configurations of this basic personal computer hardware. There are optional printers, keyboards, color displays, diskette storage, hard disk drives, etc. Many of the options are either available directly from the manufacturers or from independent peripheral hardware manufacturers. Additional research may be required to identify the appropriate independent manufacturers. Several personal computing magazines and newsletters which may be helpful are listed at the end of this article.

A tried and proven method for vendor selection is to use the AR.F.P. (Request for Proposal) bid process. A law firm R.F.P. should represent the current and anticipated needs for the firm. This document could also serve as a statement of the technology requirements, i.e., features and functions that the firm will require for its system. Most hardware vendors have had experience in developing system requirements from law firm R.F.P's. Another method

is to hire a qualified consultant to develop a technology plan and the appropriate R.F.P. The advantages in using a qualified consultant are twofold, 1) a good consultant know both the requirements of law firms and keeps abreast of systems and technology and 2) the lawyers' time remains free to practice while the planning and evaluation process is taking place. The major drawback to this approach is many times the lawyers are not involved until after the R.F.P. has been issued and the requirements, firm's direction or personnel may have changed, making the result less reflective of the firm's needs.

Another criterion for hardware selection should be user requirements. Will the devices be used by: attorneys, bookkeepers, secretaries, paralegals, or clients? Each of these users has different needs. For example, consider the keyboard. Many personal computers do not have a secretarial keyboard as an option. The selection of such a vendor may prove to be counter-productive in certain environments. Such human factors issues should be included as part of the R.F.P. document.

The same planning process applies to the acquisition of software. A plan, plus the understanding of the technology, will enable even the most technologically naive firm to develop a workable system. Very often the hardware vendors can, and will, bid for the software needs. One of the main concerns law firms should have regarding software is vendor support. Does the vendor update, modify, and rewrite its software?

Many firms find their particular firm's approach to management issues require a tailored software package rather than "off the shelf" offerings. This is a two-edged sword. Although custom software can be very productive, the development can be expensive, time consuming and may not always yield the desired results. Many of the newer software programs have flexible report capabilities that will often serve the custom programming requirements without modifying the original software program.

Generally, in the past, development of legal

software has been a limited economic opportunity for software vendors. Recently, however, with the introduction of personal computers, a number of software packages for law firms have been introduced. Many of these offerings are developed by lawyers and legal professional associations for the benefit of their membership. The financial and time billing packages have seen the most significant growth as the applications that can be used by all lawyers regardless of geographic location. Even though many of the current word processing packages are not designed for law firms, they can be used very effectively by the solo practitioner and smaller firms (one to three lawyers). Lawyers can expect to see significant vendor efforts for the medium and larger law firms that want to use the personal computer as a secretarial word processing workstation. Substantive systems for personal computers have not been widely introduced, but this application appears to have the most promise for the practice by reducing document preparation time and effort.

The following is a list of suggested software needs for law firms:

ATTORNEY SOFTWARE

- Litigation support
- Docket control
- Financial analysis
- Internal document retrieval
- Research
- Administrative records management
- Substantive systems
- Conflict of interest

SECRETARIAL SOFTWARE

- Word processing
- Calendaring
- Administrative records management

PARALEGAL SOFTWARE

- Litigation support
- Internal document retrieval
- Research
- Financial analysis

ACCOUNTING AND BOOKKEEPING SOFTWARE

- Time billing
- Financial analysis
- General ledger
- Payroll
- Accounts Payable/Receivable

A significant area of evaluation should be the communication capability of hardware. Communications with clients, courts, other law firms and electronic libraries may be an evaluation point in selecting the vendor. The growth of electronic libraries, called data bases, will have a significant impact to the practice. Some examples of data bases are LEXIS, WEST LAW, AUTO CITE and AMBER. A recent consultant's report indicated there are 1,320 data bases available in the U.S. The growth rate for new data bases is approximately 50 percent annually. Data communication will grow dramatically in the next several years, especially with electronic libraries. Anticipated law firm expansion to additional geographic locations might call for interoffice communications of accounting information and documents. Personal computers can be used as a communications terminal for a larger computer where large volumes of documents, depositions and related facts might be stored. This application can be used on a time-sharing basis which will limit cost, but not capacity or function. It is this last area, communications, that will provide the lawyer with an integrated system. Dr. Gary R. Garrett, a member of the Association of Legal Administrators and frequent lecturer on law and technology, says there are five layers of automation:

1. The collection, processing and storage of numerical data [e.g., data processing (D.P.);
2. The collection, processing, storage and printing of textual information [e.g., word processing (W.P.), typesetting information, retrieval];
3. The integration of discrete processing functions to allow existing office functions to be performed more efficiently (e.g., D.P. and W.P. for report writing, W.P. and communications for electronic mail; electronic mail and calendars for scheduling; voice, data, text and graphics for information management);

4. The tailoring of office communication and control systems to support a wide range of activities (e.g., multi-function workstations, personal computers, traveling and homework stations total information control); and
5. The integration of computer and communications technologies into management policy. This layer of automation allows for the expansion of human potential through automation. It is truly a management function.

Garrett's model provides the practice with a road map for future direction. Specifically applied to the personal computer hardware and software direction, it is this concept of systems integration that will help lawyers better utilize these tools. For example, integration of legal software would allow lawyers to select from a variety of legal forms stored in external databases and apply them t their client's particular matter. Merging this legal form with the client information collected during the interview process and keyed by the support staff a final document would be created. Then, by communicating the client data and lawyer time to the accounting department or computer, a bill would be produced.

Further steps in system integration, as Garrett points out, will not be limited to this scenario. Voice, image and graphics are just a few of the office functions that will be forthcoming in the near future. One application on the personal computer that graphically demonstrate systems integration is called "windows". This allows the lawyers to see many databases at the same time on the display by using program keys on the personal computer keyboard. The "windows" are actually reduced versions of each database screen. For example, it may be possible to view up to six or seven databases simultaneously on the same personal computer screen for the purposes of comparing the information or solution. An understanding of the concept of system integration is useful in determining how much can be accomplished by the firm initially and what can be done firm-wide when the entire firm's hardware and software have been integrated. Another application in the formative stage is personal computer "networking". It consists of newsletters, correspondence, publications and sending/receiving

messages by using the personal computer communication functions. The required hardware consists of a personal computer with the appropriate communication adapters to include using ordinary telephone lines as the method of sending and receiving information. The American Bar Association has announced a network called ABA/NET. ABA/NET will provide facilities for communicating information to other ABA members, other lawyers, and the public. Other capabilities will include electronic mail, on-line conferencing, and electronic bulletin boards. The ABA also has announced one of these networks for the personal computer. It is a user-group oriented newsletter titled ABA-PC. By using this networking approach, the members of the group can "meet" electronically via the CONFER II electronic conferencing system. Its purpose is to improve the quality and efficiency of legal practice. The legal practice will benefit most directly from the use of personal computer automation. Dr. Garrett, in an address to the 12th Annual Institute on Law Firm Management in Toronto in 1983, defined four classical sphere of legal automation:

1. LOMS (Law Office Management Systems): Traditional backup functions, focusing on the classic business functions: accounts payable, accounts receivable, personnel and billing, plus other management elements that a law firm happens to share in common with other businesses.
2. CALR (Computer-Assisted Legal Research): WEST-LAW, LEXIS and 30 other databases which are used by attorneys, legal assistants, etc., in a retrieval mode. Almost all are time-sharing systems to make available information which somebody has spent money to accumulate and to which access is sold.
3. LMS (Litigation Management Systems): Internal or external management of client data bases. What five years ago would have been called Space Age Techniques, including the automated capture of full text, and scanning for meaningful words and routing to various locations within and without the office.

4. APL (Automated Practice of Law): The actual use of computer technology in automating the dissemination of legal services.
   o Matthew Bender's automated will drafting.
   o Use of databases to crosscheck so that inconsistent statements are not made in response to interrogatories.
   o Computer modeling of court decisions, etc.

Because sphere 1 has been the target of most law firm efforts let us focus on spheres 2, 3 and 4, where lawyers, as end users of personal computers, will see the largest impact - financially and professionally. As previously mentioned, for computer assisted legal research there are numerous databases that lawyers can access now and find useful. Though currently only about 15 percent are using on-line database services. This number will increase as the proliferation of personal computers increases. Many of the legal database suppliers, to include New York Times Information Services, Lockheed's Dialog, and selected bibliographies. Some law book publishers have made their forms available through these database services. One challenge to practice is how to best use and bill the clients for automated research. A more difficult problem to overcome is the fear of using computers and computer terminals. This has been a significant barrier to the wide use of these devices by the profession.

Litigation management systems (LMS) currently account for an estimated $100 million a year and are increasing. Current estimates are that two out of 10 cases are currently using some form of LMS. By 1990 the number will be eight out of 10 cases. John S. Jordan, noted litigation support consultant, said in a speech at the Legal Info Conference held in San Francisco in June 1982, "What the computer adds is three things and three only: greater depth in indexing, very fast and simultaneous manipulation of indexes and formatting of indexes in input. By using software programs called database managers, a lawyer can enter information from documents in the client matter in any order. Then, by instructing the personal computer to search this collection of information (date of letter, author, addressee, subject, etc.), the lawyer can develop a better mental picture of the particular issue under consideration.

As mentioned by Jordan, the advantage of this approach is that, as the issues change, the lawyer can re-index the information by instructing the personal computer to search the database without having to re-key the information. As a practical matter, the use of automated litigation systems has traditionally been applied to very large cases involving a substantial number of documents (50,000 documents and more). But because of the availability of software to handle smaller databases the use of this application has increased. Many consultants are recommending using personal computers for matters that involve 50 documents. The threshold is not as important as the experience and results that come from using automated litigation support systems.

The last of Garrett's spheres is APL (Automated Practice of Law). This is a relatively new area of technology. Substantive systems are designed to allow the lawyer to answer a series of questions related to the client's matter, and, from the responses, an appropriate legal document would be created. Matthew Bender has announced a substantive system that helps lawyers' draft wills. Many state bar associations have under development substantive system for word processors and personal computers. The use of personal computers to check inconsistencies in depositions and interrogatories is a function that can be used with database management software similar to automated litigation support search capabilities. The modeling of court decisions, jury decisions and general litigation analysis has been used for some time by large corporations in product liability and antitrust matters, but the software offerings for the personal computer have been limited for these applications. However, it may be possible to modify a financial business application package to be used as a risk analysis program for lawyers.

In conclusion, it is difficult to make general recommendations about personal computer hardware and software for law firm without specific information about the particular firm. Additionally, the rapid changes in technology make virtually any article obsolete the day it is written. Personal computers should be considered lawyer/legal tools and, like any investment, carefully planned. A great deal can be learned regarding how to use these tools by attending personal computer seminars, developing dialogues with the hardware and software vendors and, finally, by networking you and your firm into the leading-edge users.

Planning Information

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Newsletters and P.C. Magazines

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- Automated Law Office Consultant, Roadrunner Publications, Inc., P.O. Box 13548, Austin, TX 78711.
- IBM Personal Computer User Group Newsletter, American Bar Association, Editor Daniel Fenton, Christian, Barton, Epps Brent, and Chappell, 1200 Mutual Building, Richmond, VA 23219.
- Legal Automation News, The Communications, Exchange, Inc., 1730 North Lynn Street, Arlington, VA 22209.
- Legal Systems Letter, The Medford Press, Inc., 270 Madison Avenue, New York, NY 10016.
- Personal Computer News, P.O. Box 848, Point Reyes, CA 94956.

Software Sources

- LOCATE, Edited by Bruce D. Hewitz and Lavina S. Gill. Monograph Series, Section of

Economics of Law Practice, American Bar Association.

- PCS Clearinghouse Software Directory, 11781 Lee Jackson Highway, Fairfax, VA 22033.
- **Author's Note: This article was included in this compilation to illustrate the rapid development and progress of technology, particularly personal computers, within law firms.**