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Suffolk University Law School

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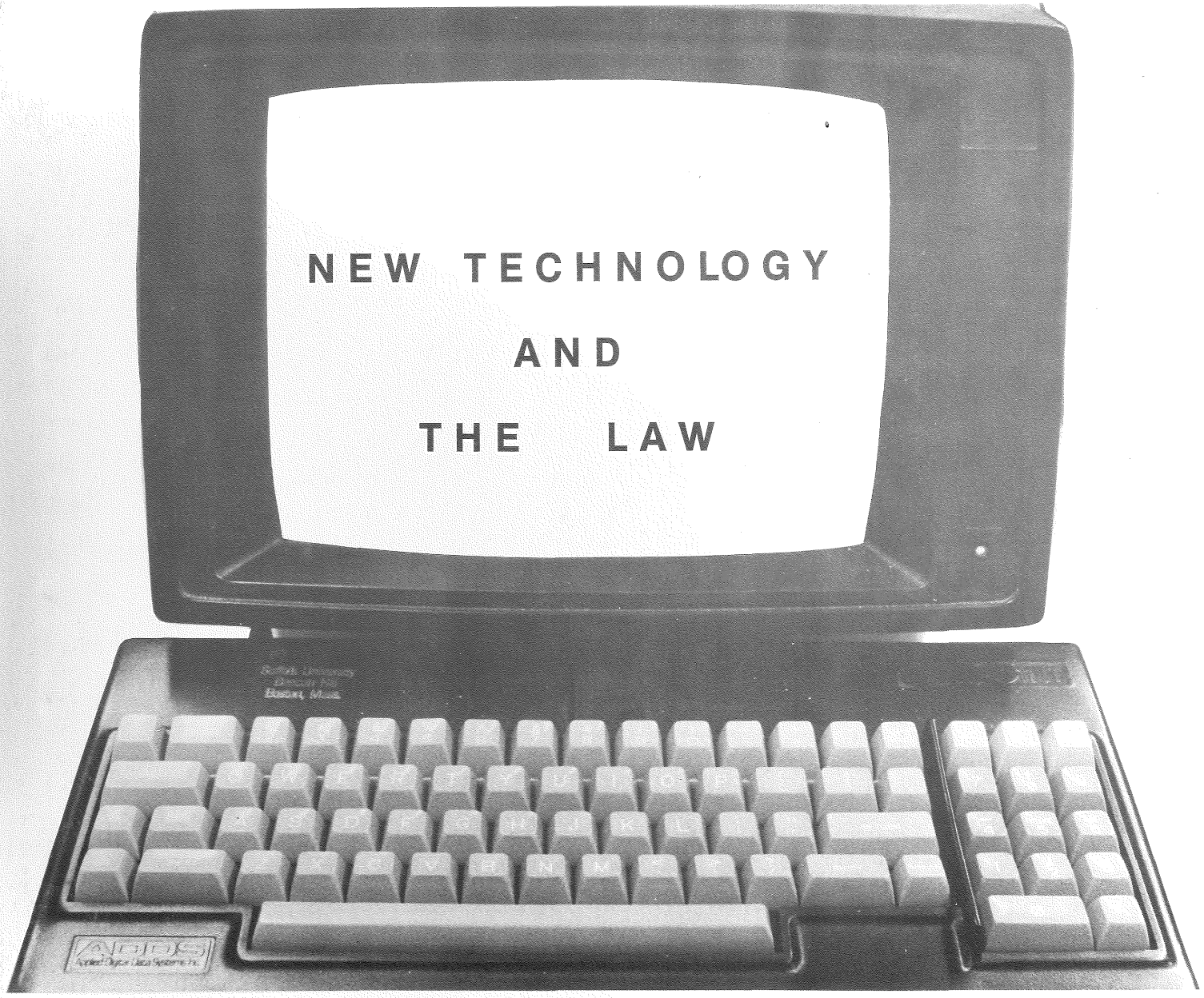

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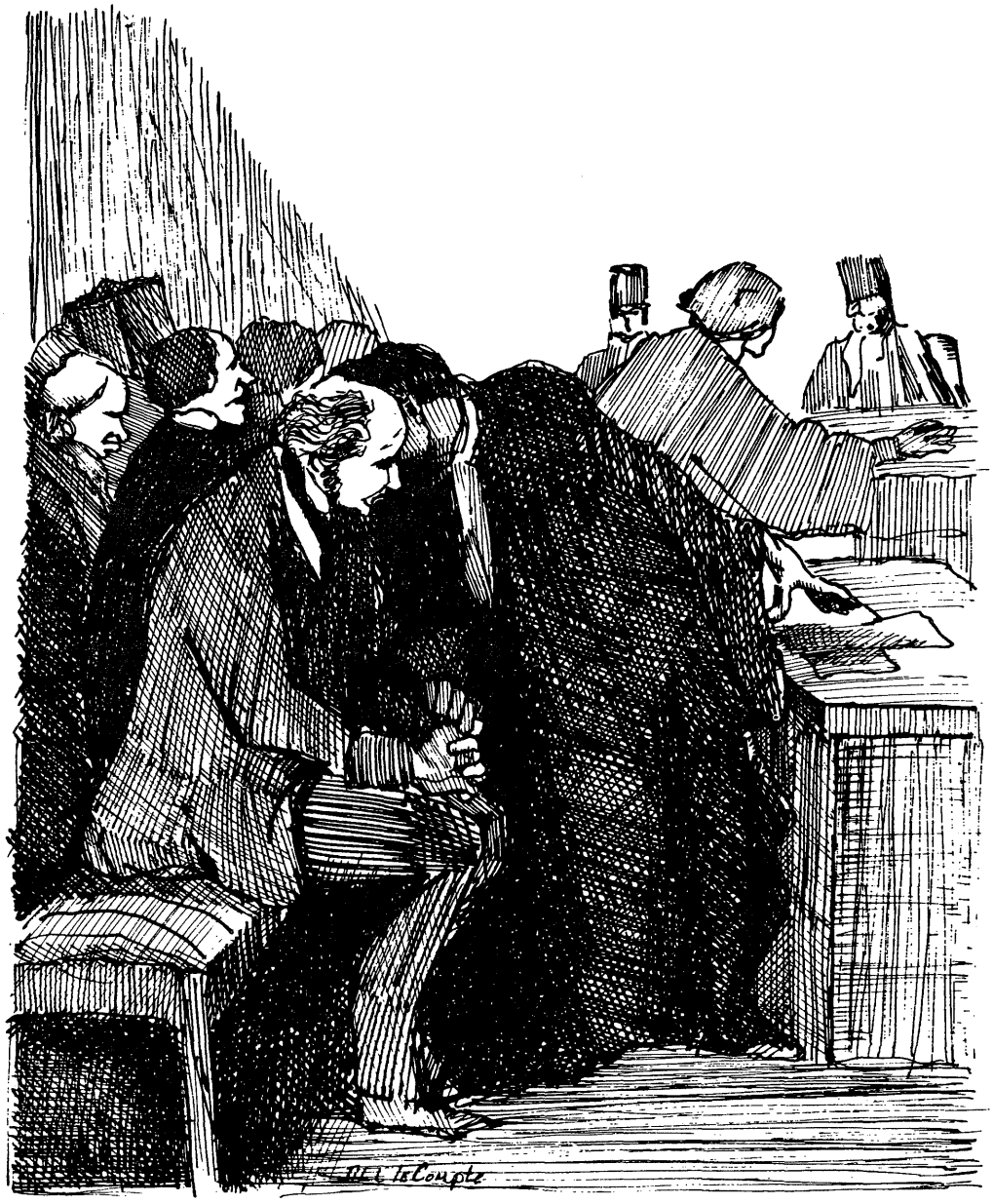

Relax . . . we have a Bateman & Slade brief and appendix!

theAdvocate

Volume 14 No. 2 Spring 1983

The Suffolk University Law School Journal

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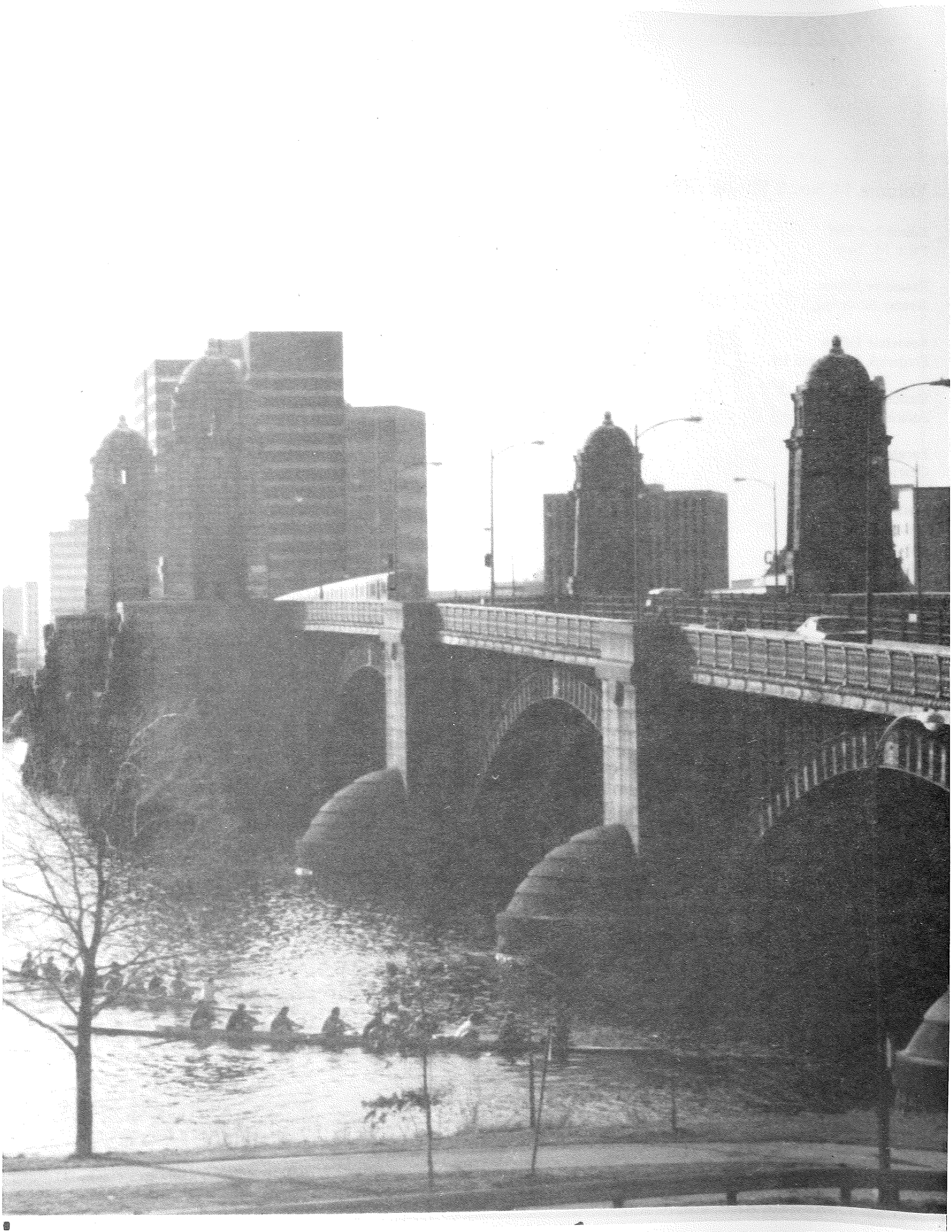
The ADVOCATE is a publication of Suffolk University Law School. Our current circulation is 11,000. The ADVOCATE is published three times a year: orientation, fall and spring issues. The orientation issue is distributed to law students only.

The objectives of The ADVOCATE are to publicize the activities and outstanding achievements of the Law School and to present articles by students, faculty and guest writers on timely subjects pertaining to the law.

All articles and editorials reflect the personal views of the authors and are not necessarily the views of the administration or faculty of Suffolk University Law School.

Guest editorials by students and faculty are welcomed by The ADVOCATE, which recognizes its obligation to publish opposing points of view. Persons desiring to submit manuscripts, to be put on the mailing list or to communicate with the staff please address all letters to: The ADVOCATE, Box 122, Suffolk University Law School, 41 Temple Street, Boston, MA 02114.



Cameras in the Courtroom

by Professor Kindregan

Realities for lawyers and realities for the general public are two very different kinds of things. Reality for lawyers is based on what we sometimes call the legal mind. We think of the world not how it is but in terms of how it effects our practice, how it effects our clients, and how it effects the legal system in which we make our living. Novelty and sensationalism are alien to lawyers. Lawyers work within a very narrow framework. Law has been described as the second oldest profession, and it has also been described as the most noble profession. I lean more heavily towards the second view than the first but I think the public sometimes has doubts. I think those doubts arise from the fact that the way that lawyers think is very different from the way that non-lawyers think. For example, we profess to be very much concerned about the truth and yet we spend most of our time, or much of our time at least, trying to keep evidence out; keep evidence away from the jury. Of course the jury is charged with finding the truth. I think it's no wonder that the public is often confused as to what we lawyers are doing. To some extent I think reality for lawyers is premised on what the legislatures and courts tell us is real. Lawyers don't make the law. Judges make the law, legislators make the law. I think it's understandable that lawyers are sometimes uncomfortable with things that haven't been given validity by the courts or by the legislature. Television is such a reality.

Aside from the fact that we are not really sure how cameras in the courtroom effect our clients' rights, we are also not sure it effects jurors, effects witnesses, effects ourselves, and effects the public's perception of what we are and how we operate. Aside from all of that, courts and legislators have not given us very much encouragement to accept the idea of video in the courtroom. Indeed for several decades the courts told us that video in the courtroom was a wrong. So also were radio microphones and cameras and other devices meant to record in some way what was happening in that courtroom not permitted.

Because it was a notorious case you are probably familiar with *Estes v. Texas* (381 U.S. 532, reh. den. 382 U.S. 875 (1965)). In that case the Supreme Court of the United States reversed a criminal conviction on the grounds that there were television cameras present in the courtroom. Those massive television cameras of the time, the Court indicated, had turned a notorious public corruption trial into a notorious circus and thereby denied the criminal defendant due process of the law. The Court did say that its attitude might change with "ever advancing techniques of public communication."

But lawyers tended not to look at the implication of this dictum. I think most of us tended to look rather at a conviction reversed by the Court based on the presence of television cameras. It wasn't until the late 1970's that our thinking began to change a little on this. As often happens when change is on the way in our profession, it began with small groups of people: lawyers, judges, people from the news media and others interested in the subject, beginning to talk to each other about it. A particular interest group within the bar began to push it. It was the Free Press Committee of the American Bar Association which finally, in 1978, said maybe we should think about this again. The committee finally recommended the adoption of the rule which would allow television and photographic coverage of trials. Of course, as also happens in the internal politics of the modern bar, other interest groups began to feel threatened by that proposal. The lobbying began, and eventually that proposal was defeated in the House of Delegates of the American Bar Association only a few years ago, February 1979.

No one ever accused the American Bar Association of moving too quickly on anything, but the fact is that things were happening that had nothing at all to do with the national bar groups, such as the ABA, things that would eventually change the reality with which we're now dealing. What happened was that a number of state courts and local bar groups began to study the issues of video in the courtroom for themselves.

Professor Kindregan has taught at Suffolk University Law School for 16 years in the areas of Equity, Family Law, and Professional Responsibility. The following is a portion of a panel discussion to which he contributed, held at Suffolk on March 19, 1982, at a Law Librarians of New England conference entitled Video and the Law. Other panel participants were Massachusetts Superior Court Judge Travers, Attorney P.J. Piscatelli and television news director James Thistle.

The Chief Justices' Conference voted 44 to 1 to permit experimental television coverage. Some states actually began to experiment. In introducing me, Professor Bander mentioned one very small experiment that was done in Massachusetts in 1976, the first video-taping of an oral argument in a courtroom proceeding in which I happened to be one of the attorneys. I recall very clearly when I walked into the SJC that morning, even though I had been told a few days before that there would be cameras present, feeling surprised, feeling a little uneasy, feeling that this wasn't appropriate, wasn't proper. And yet when the argument began I completely forgot about those cameras. They just weren't there anymore because there were more important things to deal with, that is, the argument before the court.

I'm not sure that all lawyers, all judges, all witnesses, all litigants, all courtroom observers, all courtroom officers, would react in the same way and that's one of the things I think we have to be concerned with: What effect the presence of the camera has on those that are observed by the eye of the camera.

Committees, often appointed by local courts, began to study this question in detail. I think these committees gave the subject the coloration of validity to lawyers. We know that one such excellent study and one of the most comprehensive was that undertaken by the Travers Committee Report here in Massachusetts. This was entitled "The Report on the Advisability of Permitting Electronic Recording of Court Proceedings for New Purposes".

Often these state committees focused on the effect which the presence of television cameras would have on the participants of the trial. I still think that this is a valid subject for further analysis. The effect on the public of seeing a 90 second newsclip, or less, on the evening news is also of concern, then and now. Due process issues were examined by groups such as Judge Traver's committee and I am sure that there are some lawyers who are going to go to their graves convinced that the mere presence of a television camera in the courtroom is an inherent denial of due process. But most of us, I think, have gotten past this point now. Some of these committees concluded that the public aspects of the trial should be opened to immediate coverage, subject of course to the right of the trial judge to protect the fair trial of the defendant. Some propose that the cameras be introduced on an experimental basis. Others were sufficiently convinced to write a permanent rule allowing video coverage. I recently looked at a study in the *News Media and the Law*, November 1981 issue, which reported that 18 states had permanent rules allowing television coverage, 14 had experimental rules, 5 had pending rules, and 14 have no plans at all. There were a few other states where the matter remains under study by committee.

For some lawyers, however, nothing is real until the Supreme Court says it's real. In 1981, the Court decided the case of *Chandler v. Florida* (449 U.S. 560 (1981)). While the Court did not technically overrule the decision in *Estes v. Texas* (although Justice Stewart and Justice White wrote that is exactly what the Court should do) it did rule that broadcasting of a criminal trial is not inherently prejudicial. There was a trial broadcast in Florida; the defendants were charged with burglary, grand larceny and possession of burglary tools. Portions of that trial were televised by the local Florida media. The trial was of great public interest. The defendants were police officers who were arrested while committing a burglary and they were apprehended because they broadcast the details of the burglary to their fellow conspirators over the police radio. That broadcast happened to be overheard by a local ham radio operator. The trial got a great deal of publicity and two minutes and 50 seconds of that trial were broadcast on the local news. It just happened that all of the material broadcast related only to the prosecution's side of the case. No portion of the defense case or the defendants' argument was televised. The defendants claimed they had been denied a fair trial. The Supreme Court rejected their claims. The Supreme Court said that the mere presence of cameras and the broadcasting of the tape over the air did not prejudice their trial.

It is important to note two things about the *Chandler* case, however. First, it left opened to a criminal defendant the right to challenge the presence of cameras in a case where it would be prejudicial. However, the defendant must show actual prejudice. Secondly, the *Chandler* case relates only to criminal trials. Yet to be considered is the question of whether or not civil cases, such as for example, a notorious divorce case based on adultery, may be publically televised. Also left undecided by that case is the appropriateness of televising appellate arguments, administrative hearings, (for example, disciplinary hearings against a lawyer as to a lawyer's conduct, or a judge's conduct or a physician's conduct, or even the coverage of the pre-trial aspects of a criminal proceeding in such delicate questions as to whether or not a confession should be suppressed). Should the public be allowed to see that on the local news? All of this remains, I think, unanswered from a constitutional point of view. We will, no doubt, have further cases testing out some of these questions.

At the outset I said I was going to express a few ideas about what reality is for the general public as well. I have an idea that for many people something isn't quite real unless it's seen on television. I've had occasion to appear on various television talk shows in Boston, Chicago and other cities. The remarkable experience for me has always been to meet someone afterwards and they say "I know you." The fact is they don't know me, they never met me before, but they saw me on television and that makes me real. That to them is an experience. They saw me on television, they met me in their living room. I think there is something to be learned from that. One thing we can learn is the opportunity which television has for making our legal system more real, more meaningful to our fellow citizens.

Some of the judge's work and most the jury's work and a great deal of the lawyers' work during the course of a trial remain hidden from the camera's eye. However, much of it will now get into the public eye through the television tube. How the system actually works will come across to the public and will heighten public awareness of the importance of what goes on in our courts. No longer will the courts be the forgotten branch of the government. I happen to think that's a good thing.

Now I know that the camera's eye will reveal that not every lawyer is a Perry Mason and not every judge is a King Solomon, but I don't think that's so bad either. A little de-mythologising is probably a good thing for all of us. I hope what the camera will reveal is that through the legal process, as observed by the camera, the people will come to a recognition that the courts preserve our fragile rights as citizens. We learned in our civics classes as youngsters that ours is a system of laws, not a system of men. But what we weren't taught very well is that the system of laws is administered by men. It's administered by fragile human beings, men and women who serve as lawyers and judges and jurors and court officers, and they're not supermen or superwomen; they are human beings trying to preserve a system of justice through the process or the procedure of law.

I hope the television camera will enable the public to put that into a more realistic perspective. Even if it is just 90 seconds of the Von Bulow trial on the news, even if it's only the most sensational portion of the most sensational trial, it nonetheless will bring our legal system before the public and it will keep it there, and I think, that's a very important means of preserving in the public consciousness the significance, the importance of our legal system.

Electronic Transfer of Funds Demystified

by Alfred I. Maleson

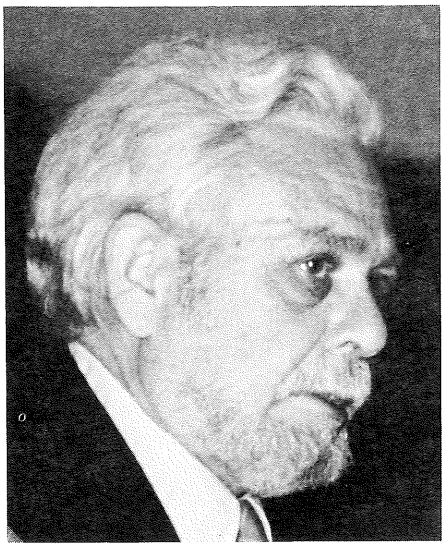
Transfer of funds in response to messages transmitted electronically rather than by paper is as old as the telegraph and as new as the microcomputer. It has been with us unnoticed in some forms for a very long time, but its burgeoning within the past few years has been so great that it can no longer be ignored. Yet, its technology intimidates us so that its impact on our legal system leaves many of us in bewilderment. The purpose of this article is to demystify the term, though not the technology, by considering these questions: What kinds of transactions are "electronic transfers"; what institutions are involved in the transactions; what legal problems may arise; and what sources of law are to be applied to these problems?

Electronic transfers are messages sent by electrical signals. They are not like pipelines through which funds are transmitted, but they depend upon a network of financial institutions and clearing houses. Some parts of the network are the same financial institutions which transfer funds in response to written messages in the form of checks and other drafts. Other parts, particularly the automated clearing houses through which many of the messages are sent, are separate institutions.

The transactions themselves and the legal structures superimposed on the transactions are of two general types: transactions between separate financial institutions and transactions between consumers and financial institutions.

In 1978, Congress enacted the Electronic Fund Transfers Act (EFTA) as Subchapter VI of Chapter 41 (Consumer Credit Protection) of Title 15 (Commerce and Trade) of the United States Code. As the name of the Chapter implies, this act applies only to consumer transactions. The act defines an "electronic fund transfer" as "any transfer of funds, other than a transaction originated by check, draft, or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument, or computer or magnetic tape so as to order, instruct, or authorize a financial institution to debit or credit an account. Such term includes, but is not limited to, point-of-sale transfers, automated teller machine transactions, direct deposits or withdrawals of funds, and transfers initiated by telephone." *The definition is solely for the purposes of this Subchapter.* Generally, the term might include inter-bank transfers, or commercial transfers. However, the general use of the term Electronic Fund Transfers to include inter-bank transfers, which are unaffected by this act, might well cause confusion. For this reason, the commercial transaction is better called a Wire or Cable Transfer, however sophisticated the equipment at the end of the wires and cable may be.

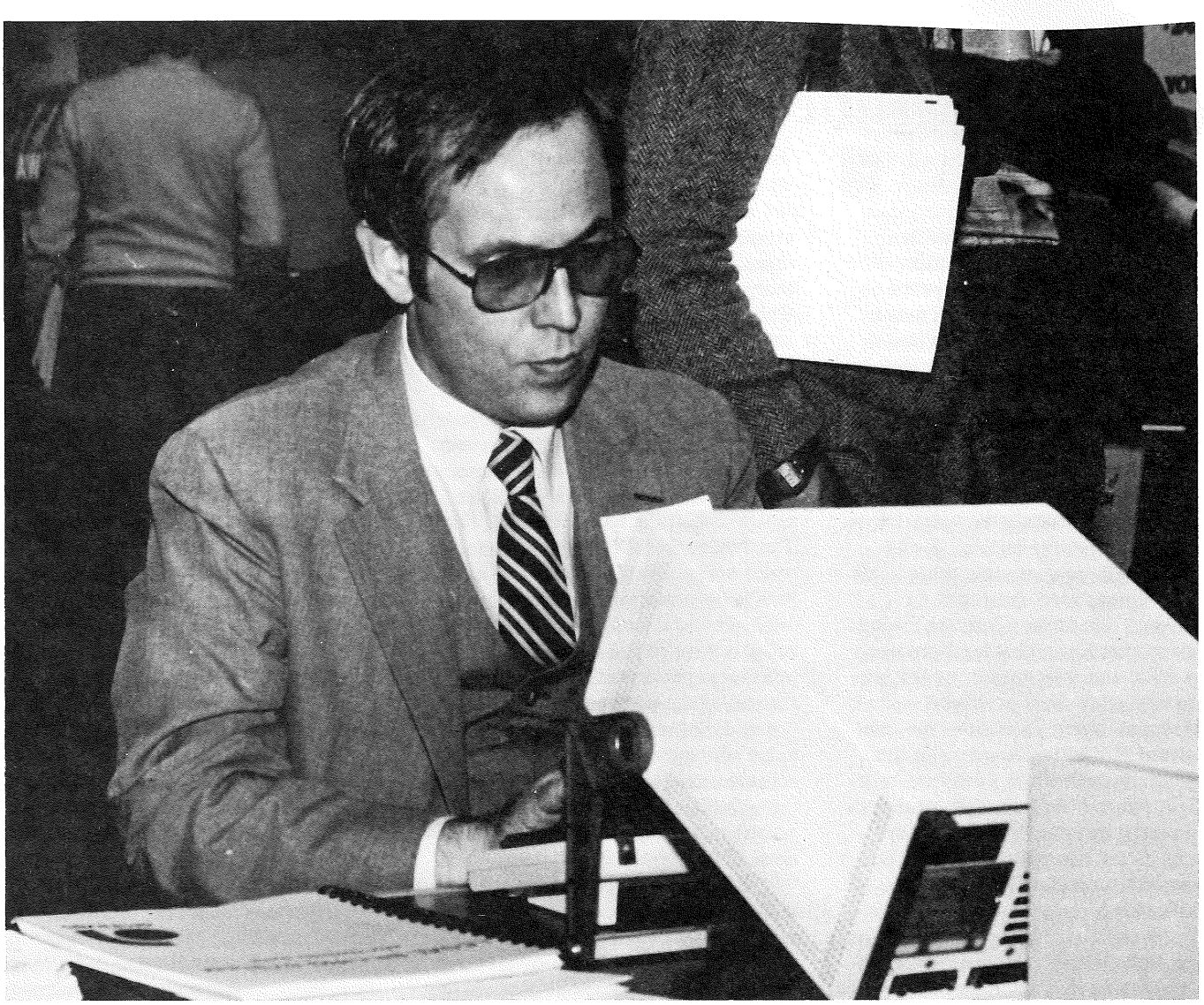
The definition of the EFTA shows the scope of the transactions possible. A consumer may send messages to a bank through his own computer terminal or telephone, or through a terminal not his own. The *Point-of-Sale* transfer, or "POS," utilizes a terminal in a retail store through which a consumer sends a message to the computer of a financial institution to charge his account and credit the account of the retailer. Access to the terminal is by a magnetically encoded card called a "debit" card, and activation of the computer mechanism upon inserting this card requires the use of a secret password, called a *Personal Identification Number*, or "PIN." The *Automated Teller Machine*, or "ATM," is a terminal through which a user communicates with the computer of a financial institution to make deposits, withdrawals, and transfers among the accounts which he may have in the institution. Access again is through a magnetically encoded card and a PIN. Direct deposits and transfers initiated by telephone users are computer transfers initiated by the customer of the financial institution, but introduced into a computer terminal by personnel of the institution in response to a telephone instruction, or to a written general instruction. (Such an instruction, though written, is not like the specific instruction on a check.)



Professor Maleson teaches Commercial Law and Secured Transactions at Suffolk University Law School.

Wire and cable transfers among financial institutions are handled through a variety of networks. Within the United States, the Federal Reserve Board maintains a network known as "Fedwire," through which accounts of member banks may be transferred to one another by communication between Federal Reserve banks. A private network known as "Bank Wire" provides for interbank communication and fund transfers. International transactions are handled by two private systems, "CHIPS," for *Clearing House Interbank Payment Systems*, and "SWIFT," for *Society for Worldwide Interbank Financial Telecommunication*. Additionally, there are fully computerized clearing houses in the United States that process information submitted in magnetic rather than paper form. These are called *Automated Clearing Houses*, or "ACH's" and they are grouped in various associations with colorful acronyms, like "NACHA," for National Automated Clearing House Association, "GACHA" for Georgia ACHA, and "CACHA" for California ACHA.

The legal problems which arise from the use of these paperless transfer systems are different in detail from those that arise with check or draft initiated transfers, but they are not different in category. The ultimate question is



usually one of allocation of risk caused by human error (with or without negligence), system failures, contractual disputes, and fraud. Except for consumer transactions, there are no governing statutes (like Articles 3 and 4 of the Uniform Commercial Code) to solve any of the problems! Each of the organizations which handles these transfers has its own rules to which members or users may be obligated by the law of contract. The law of agency, tort, warranty, and so forth, may also be involved in the analysis of this allocation of risk. Courts have sometimes been urged to follow by analogy some of the rules of the Uniform Commercial Code for such things as finality of payment and warranty, but these urgings are usually without success. A new Uniform Act, to be called the *Uniform Payments Code*, is now being drafted, and it may some day replace parts of Articles 3 and 4 of the Uniform Commercial Code. If it does, there will then be a single statutory system. Until then, the legal system for paper is the Uniform Commercial Code, and for electronic transfers it is a conglomeration of common-law subjects, heavily influenced by private codes and rule books which may be enforceable through contract principles.

The federal Electronic Fund Transfers Act of 1978 covers only the consumer end of these transactions. It provides for mandatory disclosures of terms, documentation of transactions, and a system for error resolution which financial institutions must follow. In addition, it provides for some type of compulsory rules of risk allocation which may not be defeated by contractual terms, despite disclosure, for such things as unauthorized use of access cards, and it regulates liability of consumers who have disputes with the provider of goods or services. This act is administered by the Board of Governors of the Federal Reserve System. However, the Board may exempt from its application transactions in states which have their own approved acts. Massachusetts enacted its own Electronic Branches and Electronic Fund Transfers Act in 1981, as Chapter 167B of the General Laws. This act, which is administered by the Commissioner of Banks, is nearly identical to the Federal act, so that for most transactions only a single supervisory control will be required.

There has been no attempt in this article to explain the details of any of the rules of law, statutory or otherwise, which are involved in this transactional subject. If the reader is able to approach problems with a little less apprehension, it will have served its purpose.

Microcomputers and the Practice of Law

by Alfred J. O'Donovan

This is an unscientific attempt to state some general principles which I've abstracted from my experience with that creature of "hi-tech" known as the microcomputer. The reader is cautioned that these perceptions may relate only remotely with technical reality. It is at bottom a relationship that I'm describing — Me and My Micro. And all of us know how relationships can be tainted at times with imprecise thought and even emotion.

Among the questions evoked by the utterance of the word "microcomputer" are:

1. What is it?
2. What does it do?
3. Should I (a lawyer) get one?
4. What should I consider if I decide to get one?

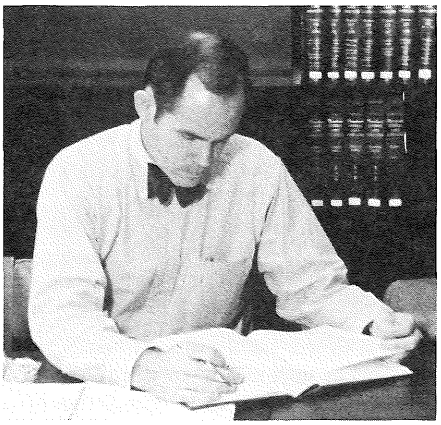
I provide you with my understanding of the term by examining these questions.

What is it?

"It's a piece of junk until you put something in it." A professor of mathematics and computer programming at one of Boston's leading universities told me this, perhaps revealing his bias. I think of it as an aggregate of components,[1] the most imposing of which is a TV-like screen called a cathode ray tube (CRT). Hidden in the recesses of the machine is the central processing unit (CPU). It contains the electronic circuitry[2] which, by directing the flow of small electrical impulses representing pieces of information, "conducts the symphony."

Information is introduced to the machine by way of a DISK DRIVE or a typewriter-like KEYBOARD. It is usually stored for immediate use and manipulation in an electronic memory (more chips) which may be accessed randomly. It is appropriately called a random access memory (RAM). A DISK DRIVE is an electro-mechanical device which accepts and mounts a flexible disk which is contained in a square (5¼" or 8" on a side) plastic envelope. Information is "written" onto or "read" from a disk (from or to the RAM) in approximately the same way a magnetic tape recorder operates. For example, operation of a typical word processor[3] is initiated by inserting a disk containing the word processing program into a DISK DRIVE and (by pushing a button) directing the machine to impress the program onto its memory.

The PRINTER is the device which "reads" information from the RAM or the DISK DRIVE and converts it to a document. The document could be a phone bill which does not require a refined presentation to be understood and paid. Or it could be a trust instrument that should appear crisp and neat. Lawyers usually produce documents of the latter kind and consequently require a LETTER QUALITY PRINTER.



Professor O'Donovan teaches Estate Planning and Federal Income Taxation at Suffolk University Law School.

"It's a piece of junk until you put something in it."

What does it do?

"It works miracles!" Thus spoke one of my former secretaries after using a word processor for only a month.

Short of miracles a word processor greatly facilitates the arrangement and rearrangement of text. Words are "typed" onto the CRT and may be "erased" electronically. If they're the right words but in the wrong place they may be transposed. A document, once produced, generally requires a single proofreading. If portions of it are used in other documents those portions do not require proofreading. A word processor can check spelling, properly hyphenate words and justify (line up) right as well as left margins. This is in addition to such mundane tasks as ensuring that each page is approximately the same length even if line spacing shifts from double to single several times on one page while the remainder of the document is generally double spaced. It can automatically number pages, insert footnotes and headnotes and search throughout a page or an entire document for a word or word group and replace it with another word or word group. One can rest assured that if an indenture for a trust having a single trustee was derived from a form contemplating multiple trustees, all references to the trustee shall be singular.

"It works miracles!"

It is to be remembered that a word processor is but a species in the family of microcomputers. Some can be reconfigured for use as a personal computer by the mere insertion of a different program disk. Thus, the same machine that produces the motion for the 10:00 a.m. hearing and the deed for the 2:00 p.m. closing can be used to manipulate data at 9:00 p.m. so that one might be prepared the following morning to answer all those "what if" questions propounded by his partner relating to a tax shelter offering prospectus being prepared by the firm.

For example, in a typical real estate transaction investors are often interested to know the economic and tax consequences of a given revenue stream matched against projected operating expenses, debt service and depreciation allowances. Changing a single assumption regarding these variables would require hours of manual calculation. This is not so with an "electronic spreadsheet" such as Visacalc or Supercalc. Assumptions may be modified and schedules revised with accuracy and speed.

Many law office management problems can be solved by using a microcomputer. Thus, client billing can be made easier by the use of data management-like programs which produce bills from time report information that is stored in random order but keyed to clients and producing attorneys and their time charges and billing rates.

Should I (a lawyer) get one?

"Don't leave home without it," is my advice to any lawyer, but especially one who specializes in the business, corporate or tax fields. A partner in a large New York City law firm with whom I'm friendly, conducts his securities practice in an office containing both a Lexis terminal and a word processor. Another friend, a Boston attorney, becomes frustrated when on Saturday morning his secretary is unable to come to the office. His frustration stems from the knowledge that the document he wants to read and perhaps edit is stored on a disk and he doesn't know how to operate any of the five word processors in the office.

Dictation and the use of forms will continue to play a part in the initial preparation of documents. However, I believe lawyers will come to realize that the quickest way to edit text to produce precisely what they want will be to conduct the editing process themselves at the CRT/KEYBOARD.

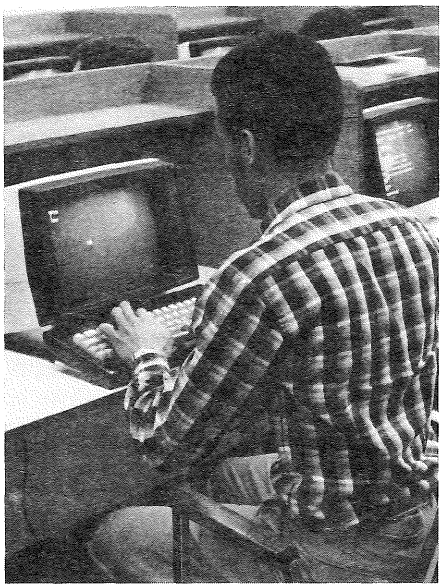
"Don't leave home without it."

What should I consider if I decide to get one?

Software available for use with a microcomputer will largely define its capabilities. The manner of its acquisition, i.e., purchase or lease, may have both an economic and tax effect.

Software

"Shop for software first," is the beacon to guide one interested in a microcomputer. Software is the means by which a microcomputer is directed to perform certain tasks, such as word processing or numerical data manipulation with an electronic spreadsheet. However, before one of these application programs can be implemented, a microcomputer must be provided with the proper "environment" in which to perform. This "environment" is known as an operating system. Application programs are developed to operate in conjunction with certain operating systems. CP/M (monitor control program for microprocessor) is a very popular operating system for which a wide variety of programs have been written. Thus, when shopping for hardware, one should be conscious of whether a microcomputer has or is adaptable to an operating system in which the software he intends to use will operate. Hence, one must first know what software he wants. This, of course, depends upon the tasks to be performed.



Purchase or Lease

The decision whether to purchase or lease a microcomputer is dependent upon a number of variables such as (i) prevailing interest rates, (ii) amount of cash available for a down payment, (iii) advantages flowing from depreciation allowances (which, in part, will depend upon the amount of one's other taxable income) and investment tax credits, (iv) whether the seller can or will arrange lease financing and the effective interest rate and other terms of such financing, (v) whether a lessor will "pass through" the investment tax credits and like considerations. Somewhat ironically, the decision is made easier if one has access to a microcomputer and appropriate software.

Conclusion

The microcomputer is changing the way that lawyers practice their profession. Long term relief from drudgery for lawyers and office personnel may be obtained at the relative small cost of the time involved in learning about the microcomputer.

Notes

1. I shall refer to the "components" in CAPITAL LETTERS.
2. The circuitry is etched on a small piece of silicon — the famous "chip."
3. A word processor is a mircomputer which is configured for and dedicated to the task of producing and editing textual material. A personal computer is a microcomputer which is adapted to the formulation and manipulation of quantitative data. To date no single machine has been developed to perform both tasks well. However, one is expected soon. White, *Rivalry Between Word Processors and Personal Computers Heats Up*, Wall St. J., Mar. 10, 1983, at 33, col. 3.

"The microcomputer is changing the way that lawyers practice their profession."

Westlaw and Lexis: A Comparison

by Edward Bander and Susan Sweetgall

The following comments were sent to an alumnus of Suffolk University Law School who requested our opinion on the relative merits of Lexis and Westlaw. This item is an updated version of one that originally appeared in the manual prepared for the COMPUTERS FOR THE SMALL AND MEDIUM SIZED LAW FIRM workshop given at Suffolk University Law School on November 5, 1982. The workshop was conducted by Mr. Bander and Professor Mirabito of Suffolk University Law School.

Dear _____,

As I have been using Lexis exclusively for the past five years in this law school, my comments may not be completely objective. However, as I recognize that Westlaw offers features of invaluable merit, I have installed it in the library. There is no question in my mind that I would prefer having both systems rather than multiple terminals of one. A survey by *Flite Newsletter* (published by the Department of the Air Force, Vol. 16, No. 1 Jan.-March 1983, p. 1) revealed that the level of satisfaction with both Lexis and Westlaw "seemed quite high."

I am going to begin at the beginning, as I have learned to my sorrow that many lawyers have not the foggiest notion of what I am talking about when I use words such as "user friendly", "dedicated terminal", and "telecommunications."

Let us start with our Lexis terminal. The computer that we lease from Lexis is connected by phone to a data bank in Ohio owned by Mead Data Central. After engaging the equipment, dialing a phone number, and typing in our ID number, we are ready to do research. The monitor (TV screen) welcomes the operator and after a few preliminaries made obvious by directions on the screen (the directions tell you to hit a "Transmit" key which propels you to the next set of directions), you are ready to do research. The next step is getting to the data bank in which you are interested. You can research Massachusetts law or all the states; you can research all the Federal Courts of Appeal or limit your research to the First Circuit; you can call up a data bank of only tax cases; and you can even ask a data bank to tell you the attorneys in certain cases.

Calling up data banks is easy. What is difficult is forming a query that the computer will understand. This requires an understanding of "connectors" and how to tell the machine to search for two words or two phrases that are within so many words of each other. The directions are all in the Lexis manual and "Briefs" that Lexis provides its users with. Let us say that you ask Lexis to find you cases involving search and seizure of an automobile, and that you only want Fifth Circuit cases. Your request may look like this: SEARCH w/2 SEIZURE and AUTOMOBILE or MOTOR VEHICLE and COURT (5th). The cursor (I can't explain everything) will start blinking on and off and you will know the machine is looking for those characters in the configuration that you requested. If it finds any documents that match your request, the monitor will tell you: "Lexis has found 115 cases" or language to that effect. There are blue keys off to the right of the keyboard that permit you to manipulate these 115 cases. You can see the full text, or only that part of the text that includes the words that you requested, or you can look for opinions by a particular judge. Or — and this is vital — you can modify your request. You can hit the "M" character and add "and drugs or marijuana or heroin." Press the transmit button, watch the cursor flash on and off and the machine may return with the information that it has forty documents that now answer your search. Lexis has multiple search levels, i.e. you can divide a search into separate thoughts or ideas and use each idea on a separate level. This enables you to better see errors in search strategy and you can truly "build" a search. It is as simple as that.

However, if you make one search every two weeks, you are going to forget all the nuances necessary for a speedy and expeditious search. At Suffolk we give four demonstrations a week for students who wish to learn how to use Lexis. What makes the system go at Suffolk is that our reference staff is available to help should a student run into trouble. Also, a great many students have used the equipment in summer jobs or part time jobs, and are happy to assist their colleagues with research for their papers or their courses, or to do research for their professors. My advice to anyone contemplating the purchase of either Lexis or Westlaw is to have someone responsible for knowing how to use the equipment. For instance, the use of the exclamation mark and the asterik can substantially alter your request. There are also common words that Lexis will not search and it will not do to ask a senior partner to commit them to memory. (Lexis will inform you on the monitor if you employ "noise" words but unless you become comfortable with a computer all the attempts by programmers to make their systems "user friendly" are futile.)

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While a busy attorney should not necessarily have to know such details as that Lexis is programmed to include regular plurals, he should be present when the search is taking place. A search that an attorney thinks will come up with all the vital cases, may produce absolutely none. If he is present, he may see the fallacy in the search and add or subtract words that will provide the necessary ingredient for recovering the cases that he needs. Also, the data bank consists of the words of judges, and lawyers are in a better position to know how the judges use language. Remember Lexis is only recovering words in the juxtaposition that you requested by using the language of Boolean logic. The Childress article, mentioned below, is very instructive as to the limitations of automated legal research, as well as posing some ethical problems related to this new medium. It must be emphasized that automated legal research does not replace the conventional methods taught in law school.

Lexis is also valuable for finding cases when all you have is the name of the case. Its data bank is a thing to behold, with such exciting items as United States Supreme Court cases within forty-eight hours of publication, the Code of Federal Regulations, briefs and records of the Supreme Court, Revenue Rulings, a Securities data bank with everything you will ever need in Securities and and Exchange Law, and other items and possibilities that will boggle the mind of one who has never seen a computer in action. One thing that it doesn't have, in general, is state cases that go back beyond the fifties (see Onove, A Comparison of Lexis and Westlaw Databases, *Legal Economics*, March/April 1983, p. 27-40 for a chart listing the specific dates of the databases). Lexis will tell you the inclusive period of coverage for each file. There is also an American Bar Association component, and for an extra fee you can search the Encylopedia Brittanica, Shephard's, Lawyer's Cooperative Autocite (history of cases taken from their data bank), and a number of Matthew Bender publications. Lexis also has English material and Common Market material at no added cost. And for an additional fee you can access non legal data banks such as the *New York Times*, *Washington Post*, and Dialog through Lexis' Nexis. I would love to add Nexis to the school's facilities, but as the additional cost is based on use (about $100 an hour), I am going to have to wait for some benefactor to come along and sponsor it.

"I know too many lawyers who haven't fully accepted the typewriter . . ."

Two last items before I turn to Westlaw. Lexis is available only on dedicated equipment, that is, when this computer is not used for Lexis, it is down (i.e. useless). And state codes, with three exceptions (Massachusetts not being one of them) are not available. The reason is obvious. Opinions are unchangeable making computers an ideal medium for storage, retrieval, and programming. Codes change every year, and I suspect it is expensive to update them. Just consider how long it takes to get your bill corrected or your address changed when you are dealing with a computer. On the other hand if the Massachusetts legislature's Committee on Codification offered its work product to Lexis, with a commitment to maintain it, I am sure that the Lexis people would accommodate the Commonwealth.

I have Westlaw on a Digital WT/78 Word Terminal (on which I am typing this article). When I am not using the terminal for Westlaw (and I can only use it for Westlaw during the evening under my present contract), I can type documents on it. This also means that I do not pay West for renting a computer, which should make my superiors happy, but doesn't endear me to the West people. Should I decide that I do not want Westlaw, I have lost a legal research data bank and gained a computer. The material I access from the Westlaw can go on a floppy disk and be utilized in all the ways that word processing can utilize a disk. With a dedicated terminal such as our Lexis terminal, I can print out whatever is on the monitor, but that is the end of it.

Before you run out and buy a Digital, a few caveats. It is much more difficult to access material by word processor than by a dedicated terminal. You must know how to word process. It is bad enough memorizing the techniques of doing automated legal research without adding a knowledge of the nuances of how to cut and paste a paragraph from one position to another, or how to search for the appearance of a particular word in a document. I know too many lawyers who haven't fully accepted the typewriter, and accessing Westlaw with a word processor may result in a lot of equipment being thrown out of windows on State Street. On the other hand, at the recent Association of American Law Schools Convention in Cincinnati, a number of professors expressed their displeasure with Lexis for not making their equipment available on word processors such as an Apple or the IBM PC. One even suggested to me that he was contemplating an antitrust action.

What does Westlaw have that Lexis does not? I recently returned from a Westlaw Seminar and some of the items that I will take up in this paper are not yet part of Westlaw, but will be soon. With Westlaw you can make a field search (i.e. key numbers and headnotes), a synopsis search (their copyright synopsis of each case), or a document search. The advantage of this is that with Lexis you are searching through the entire Massachusetts data bank for search and seizure cases, whereas with Westlaw you can confine your search to only those cases that West considers to be search and seizure cases. This makes it unlikely to come up with strange documents (in Lexis a search and seizure search can produce a case of John Search suing Mabel Seizure) when limiting your searches through the key numbers. I admit it can also be dangerous if you agree that the West digest system is no panacea for legal research. A recent search for cases concerning the use of an obscene digital gesture yielded nothing searching Digest topics but a plethora of cases when the word "finger" was included in a search through the cases.

The Westlaw search techniques are different in kind if not in substance from Lexis. Let us repeat the search that we did in Lexis in Westlaw. This would be how it might look: COURT (CA5) & SEARCH /s SEIZURE & AUTOMOBILE* VEHICLE* "MOTOR VEHICLE*". The slash "s" means that we want seizure in the same sentence as search. The ampersand means that the terms on each side of the ampersand be in the same document. The asterisk is necessary because, unlike Lexis, Westlaw does not automatically search for regular plurals, and the quotes mean that we are looking for a particular phrase. I should add that two words separated by a space

means that the computer will let us know if both those terms are in the same document. Westlaw will soon permit users to search for one word within a requested number of words of another word, a feature available on Lexis. One more thing, Westlaw provides its subscribers with a "Westlaw Query Planner" pad which is extremely valuable in helping the searcher to organize his or her thoughts. Lexis would be well-advised to provide its users with a similar planner pad.

Westlaw also has a wide array of data banks. Some of the differences are that you cannot select a state to begin your research. You must start with one of the units of the West National Reporter System. West also has a way of ranking retrieved documents which you will have to ask them to explain. West will also offer Eurolex, and non legal data banks such as Dialog, Orbit, BRS, Dow Jones, and OCLC. They also promise a more sophisticated dedicated terminal with a Ven-Tel sign-in device that will immediately access the user to whichever data bank is requested. Simply put that means that even a lawyer will have no problem using the terminal. They have even intimated that you will be able to access Westlaw with an IBM PC. West would prefer that you use their equipment to access Westlaw although they have shown more give in licensing computers to access Westlaw than Lexis.

One of the things neither of the systems can do is provide any citation but the first page. *The Uniform System of Citation* permits you to cite to the screen number if no other citation is available. My suggestion is that West and the official reporters make the last characters of each page of text the page number. If the page number is part of the opinion then the searcher can make that part of his search.

Obviously this article is not intended to be definitive. The literature on automated legal research is growing geometrically. Bar journals are a particularly good source for literature on the use of computers in the law office. *The Massachusetts Lawyers Weekly, The American Lawyer, The Legal Times*, and the *National Law Journal* frequently publish articles on computers and the law. Library publications such as the *Law Library Journal* and the *Library Journal* are excellent sources. Articles that have come out recently include:

Childress, Warning Label for Lexis: The Hazards of Computer-assisted Research to the Legal Profession, 13 *Lincoln Law Review* 91 (1982);

Nissenbaum, An Impressionistic View of Lexis and Westlaw, 2 *Legal Reference Services Quarterly* 95 (1982);

Gregory, Westlaw and Lexis: Comparisons for the Public Terminal Application, 2 *Legal Reference Services Quarterly* 113 (1982).

Attorneys who wish to catch up on computers in general should read the Tuseday edition of the *New York Times* and the Monday edition of the *Washington Post* for entertaining weekly columns on computers. Numerous magazines on computers abound but I find most of them are beyond me. And by the way, if you want more articles on legal research by computer and on computers in general, you can always find a librarian who has access to Dialog, and have that person make a search through a legal periodical data base, a general periodical data base, or a newspaper data base. If this article doesn't help the innocent practitioner, Lexis and Westlaw users may be researching RES IPSA LOQUITOR w/5 STATE STREET.

"There is no question in my mind that I would prefer having both systems . . ."

Developing a Computer System for a Small Law Office

by Dr. Michael A. West, Ed.D., J.D.

Following a morning in court, you arrive at your law office to find everyone actively at work. Your secretary is using the computer on her desk as a word processor, creating a letter to be sent to several clients notifying them of recent changes in the tax laws which may affect their will. Later, by pushing a few keys on her computer keyboard she will print out a final draft of a complicated will, several client fee agreement letters, to be used later in the day, a form lease agreement, a purchase and sale agreement, and a draft contract for a new client. All of this she is able to do in a fraction of the time that would be required if she had to use a conventional typewriter.

Your other secretary, who also manages your office, is busy with the computer at her desk, updating client files and generating monthly client bills. Those bills, you recall, always took up most of her time. All of your client bills are now generated in an afternoon, and are very detailed in their explanation. Several of your clients have mentioned to you how pleased they are with your detailed billing system. With the time she saved on the billing process, this secretary now has additional time to generate reports for you and your partners. You know that by tomorrow morning you will have on your desk complete reports of cash flow, accounts receivable, accounts payable, productivity of each partner, number of accounts, expenses billed, and other useful information for the administration of your law office.

You walk by your small conference room and stop to talk to one of the law students working in your office. She is doing some research on another computer. Initially, she has accessed a data bank called *Legal Resource Index,* which includes over 660 law review journals, to see if there are any recent articles on the nuclear waste site development problem the city has asked you to research. Later, she will access other data banks to look for appropriate articles in scholarly and other professional publications. She will also access *Westlaw* to research cases on the subject.

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This paper was included in materials for the workshop COMPUTERS FOR THE SMALL AND MEDIUM SIZED LAW FIRM held at Suffolk University Law School on November 5, 1982.

You stop by the office of one of your partners, who is using a computer to prepare for meetings with clients later in the day. For Mr. and Mrs. Smith, she is analyzing possible alternatives for an estate plan, as well as analyzing the value, and future potential value of several pieces of real estate they own. For the Clark Corporation, she is analyzing a complicated stock option problem. You make a mental note to use the computer later to analyze Mr. Jones' personal and business tax situation, compute his quarterly taxes, and mail him the printed forms for his signature.

That same afternoon, at a partner's meeting, your office manager reports that the checks have been drawn to pay the office bills, payroll checks have been printed to pay the office personnel, a review of the past year has been initiated to determine which areas of the practice have generated the most income, how many hours of billable income was generated by each partner, and whether the income/costs/work plan for next year will allow you to add the new partner you've been considering. All of this, of course, is analyzed and generated by your office computer.

Following the partner's meeting, you and another partner discuss an important medical malpractice case you are handling. One key to your success in the case will be your having a thorough understanding of the initial treatment procedures in cervical fractures. Another of your law students has used the computer to access the *Med-line* and *Excerpta Medica* data banks to find articles, written in the past year, on the subject of the initial treatment procedures in cervical fracture cases. All of the articles found are available at the local library.

If all of this sounds like the law office of the future, you have not been keeping up with the advancements in microcomputer technology. A computerized law office system which will accomplish all of the above is available today, and with new developments in memory storage capability, as well as software and peripheral availability, such a system is now affordable for the "small" law office.

It was only a short time ago that only the United States Government and the corporate giants in the Fortune 500 could afford to have computers working for them in the office. But in the last few years, the type of analytical ability that was only available to large corporations with costly computer systems has become available on microcomputers. A microcomputer will now do what used to require a machine that was the size of several desks and sold for $100,000.

"An estimated half-million small businesses will purchase their first computer over the next twelve months.[1] Most of these purchases will be of the small or microcomputer variety (as opposed to mini-computers and mainframe computers which have a higher price tag). Such microcomputers are now being widely used in a variety of situations: in the home for everything from monitoring energy saving devices to maintaining recipe records; in medicine, not only in the doctor's office, but in the operating room as well; in engineering for everything from design work to monitoring the water quality of a river or lake; and the Navy uses a microcomputer on board the aircraft carrier Coral Sea to keep track of supplies the personnel records of its 4500 crew members. "One person running a small business estimated that by using his personal computer system he is saving himself 40 hours per week and $400 per week for the additional secretarial person he would need."[2]

Just as other businesses have seen the benefits of the use of computers in the office, "the computer age for attorneys has surely arrived ... (and) is giving lawyers a powerful new tool that could change the nature of the practice".[3] For the small law office, the microcomputer will become the backbone of the work station of the future. And without this technology, lawyers will not be able to compete with other firms who do use computers.[4, 5]

For years, lawyers resisted the automation of their offices. Some say that lawyers were the last business to allow typewriters to be brought into the office. In the last ten years, however, lawyers, particularly those in the larger firms, have come to realize that in a profession which is so labor and paper intensive, the automation of the office can result, in immediate benefits.[6] "Properly handled, the utilization of current technology can allow the average law firm to reduce document turn around time, increase productivity, compensate for the ineluctable rise in personnel costs, and maximize profit."[7] Microcomputers are fast, reliable, and accurate; they can store large amounts of information in a form that makes it easy to get to, and improve your decision making process; and they do not require climate controlled locations or specially trained staff.[8]

However, it would be wise for the reader, here at the beginning, to understand that the use of microcomputers is not the ultimate solution to the practice of law or the management of a law office. "A computer will not magically correct your problems. Computerizing a mess produces a computerized mess."[9] A computer cannot organize disorganized information, speak english, program itself, hold an infinite amount of information, or independently draw its own conclusions.[10] While the use of a computer will save you money, it will take a while for cost savings to show up. And, there is much more to it than simply plugging the equipment in and turning it on. It will take time to learn how to use it and make the transition from a manual to a computerized system.[11] It may even be necessary to run both a manual and computerized system, side-by-side, for a while until the "bugs" are removed from the computerized system. Remember Murphy's Law: problems will develop.

"A microcomputer will now do what used to require a machine that was the size of several desks and sold for $100,000."

Given the above as a brief introduction, it is the purpose of this paper to demonstrate to the members of "small" law offices that microcomputers can and should be incorporated into their practice, and that the type of computer power once only available to large corporations is now available to smaller businesses at an affordable price. The parameters and considerations of the paper are simple: a "small" law office is one with anywhere from one to fifteen practicing attorneys; and, what needs to be understood or done to design and purchase a computer system for a small law office.

This paper does not consider computer systems that could be bought from one single vendor, including hardware/software pre-packaged systems, time-sharing or rental systems, or interactive batch processing systems. Nor is there any consideration of such related costs as computer supplies, insurance, possible additional furniture requirements, and contractual arrangements with legal research and data bank vendors.

I.

Analysis

"A Chevrolet salesman, even a very reputable one, is not about to tell you the best car for your particular needs is a Ford or Toyota—even though this may be the case. What he will do is try to put you into the Chevrolet that fits you best. Computer dealers are no different. You need to do your homework before you walk into the showroom. The dealer provides valuable assistance and support, but since no one knows your business and its needs better than you do, you are the one who must decide what is right for you."[12] All the experts agree, the analysis of your law office operation is the first and most important step toward computerizing it. The key is knowing exactly what you do in your office, how you do it, and what the computer needs to accomplish for you. At a minimum, you should do the following:

—Develop a thorough understanding of the offices' existing systems and procedures. Problems should be identified and attempts made to develop near-term and long-term solutions. Unless the manual house is put in order, the computer will compound problems exponentially at incredible speed.[13] This is also the time to consider any changes in your operative procedure that you may want to incorporate into a computerized system. Write down exactly what you want the computer to do; establish exact goals.

—"One difficulty encountered in attempts at law office automation is the disparate nature of the firms' requirements."[14] Look at what others are doing or have done. Make visits to other law firms and discuss their solutions to similar problems. It is surprising how much law firms have in common; and very often they have different solutions to those common problems. The solutions that you discover may not be equally good, and may not work for your firm, but may give you alternatives to your own problems.[15]

—Utilizing your staff, identify all of the transactions and original documents that are used in the various areas of the office for which automation is contemplated.[16] Collect data about how your office operates, and identify areas where a computer can help; look for high volume, repetitve procedures. " ... List your inputs and study how they exist now as bills, invoices, forms, reports, accounting ledgers, etc. Determine which will be the easiest and most difficult to computerize. Then define them in terms of what you want to see on a video display and on a print out. Repeat the process for outputs—payroll checks, orders, invoices, bills, etc."[17] Collect a sample of every document produced over a typical one month period. How much straight typing is there? How much boilerplate material? How much complex, heavily revised document work? How many checks do you write in a month? How many accounts do you have in your general ledger? What sort

of documents must be done on a word processor? What do you need to know about each client? Once you have established the details of your office operation, analyze, define, and assign priorities to the firm's applications and needs.[18, 19] An actual example of the type of work you need to accomplish with a computer will be helpful later when you begin to visit sales offices. Finally, determine what you do with all of your documents and reports. What is the timing, sequence, and frequency of bills to clients and other documents that leave the office? When are other reports generated, such as cash statements, accounts receivable analysis, and attorney performance reports?[20]

—In analyzing all of the above, take into consideration your projected growth over the next three to five years. You do not want to outgrow your system within a year or two.[21, 22]

—Once you have determined the primary uses for your computer, you should consider other beneficial uses such as legal research and access to data banks, and include these in your planning.

From the outset, to the extent possible, include in your deliberations all of the people who will be using or are affected by the computer. The partners may love it, but the person who has to use it on a day-to-day basis may not like it at all. Your secretary, in particular, can be most helpful, as he/she probably knows better than you the office operation and related reports, documents, bills, and accounts.

Should you desire to bring in outside consultants to aid in the analysis process, ensure that they are familiar with the unique needs and ideosyncracies of the legal profession and law office administration, as well as with computers and microcomputer operations in particular.[23]

Picking the right computer should be the result of a long, careful, thoughtful process. Properly defining your office operations, paperwork, and requirements is part of that process. It is a difficult, time-consuming task; but it is a necessary task, and one that will pay off in the long run. Even if you should end up not purchasing a microcomputer, you will have made your office operation more efficient and cost effective.

"[W]ithout this technology, lawyers will not be able to compete with other firms who do use computers."

A final word in this section regarding expectation. "Computer acquisitions can be particularly disappointing, especially for first time users .... Often, after equipment is purchased, its promised benefits fail to materialize .... Discrepancy between expectation and reality can be eliminated if sufficient thought, analysis, and expertise are brought to the equipment acquisition process."[24] Also, be prepared to raise your estimates of the amount of time you need to find good computer hardware and software, install it, and get it running. A year is not an unusual amount of time to automate. At the very least, you can expect to spend several months "getting your feet wet".[25]

Once a detailed analysis of the office operations, documents, and procedures has been completed, you are in a good position to move forward with some confidence to other considerations: software, hardware, dealing with salespeople, and negotiating a contract.

II. Software

The "experts" suggest that the first lesson to learn in developing a computer system is to choose your software first, then find the hardware on which it will run.[26, 27] While in theory this may sound logical, most purchasers do just the opposite. The writer does not necessarily agree with this point, as several pieces of software considered for home use would have locked the writer into either expensive hardware options or single vendor purchases which would have been more expensive than purchasing individual component pieces. The better idea is to look for the right software after you have developed a good basic understanding of your hardware options. Another consideration is the opportunity that you will have as a microcomputer user to choose various pieces of excellent software from a variety of software vendors. With the larger software packages which "do everything" you are locked into one single software vendor. These larger systems also tend to cost more.[28] As you consider your software options from different vendors you should also be considering on which kinds of hardware the programs will run. If you find four different programs (i.e. for wordprocessing, accounts receivable and payable, client billing, etc.), from four different software vendors, can all four run on one computer system?

Software is important, because by themselves, the hardware components are "dumb". It is the software which tells the hardware how to perform certain functions and manipulate information. It comes in two basic forms: application software, which solves problems, and operating system software which controls the hardware operations. This paper will concern itself with the former, as the latter is supplied by the hardware manufacturer.[29]

Application software comes in three forms: "custom", "modular", and "canned". "The complexity and uniqueness of the application will probably be the single most important factor in determining whether canned, modular, or custom software should be purchased."[30]

"... [T]he analysis of your law office is the first and most important step toward computerizing it."

"Custom" software is programmed to meet your specific needs by an experienced programmer. Such software is usually developed only when it has been determined that the software required does not exist. This is the most expensive type of software, both in cost and time, and will include a fee to the programmer/consultant, time for the programmer to learn exactly what you want in the program, your time to educate the programmer, and time to work the "bugs" out of the program. The benefit, however, is that you end up with exactly what you want.[31]

"Modular software is a programming tool that enables persons with limited programming skills to develop computer programs with a minimum of effort ... (It) represents a new generation of programming tools now available on personal computers."[32] It involves modifying, to your specific needs, a program that has already been developed, or, writing your own program utilizing one of the new software programs designed to help you to create your own program.

"Canned software is pre-written, mass-market software usually available nationwide from computer stores and other sources. It has been developed by numerous software vendors for the usual business-accounting functions (general ledger, accounts receivable, accounts payable, payroll) and for specific applications such as ... legal time and billing ..."[33]

A small law office should only require the off-the-shelf or canned software. It is reliable, will provide most, if not all of what you will need for your office operation, and it is easily obtainable. Further, "Only with off-the-shelf software do you get economy of scale. In terms of price ratios, off-the -shelf software is about half or less than ... (modular) software, and one-tenth the cost of a full custom job."[34]

In your search for software applications, there are a number of considerations to keep in mind. The more of these considerations that can be satisfied, the better the software:

—Do the software features compare favorably to your current requirements? The closer the software application comes to the way you operate now, the less you will have to change the way you run your law office. How much will you have to, or do you want to, change your existing procedures?

—What kind of hardware does the software force you to use?

—Is the software "user friendly"? That is, can your clerical and secretarial personnel learn its operation quickly and easily? Is it menu driven? How much staff training time will be necessary?

—Can the software accommodate a growing business? Does it have excess capacity?

—Are the manuals, guides, program listings, and other documentation clear, accurate, and complete? Are they easily understood and non-technical?

—How quickly can you recover after a serious mistake? What happens if there is a power failure? Or if erroneous information is entered? How does the system recover?

—Does the software have adequate security arrangements, such as access passwords, identification codes, and internal logs, which will prevent unauthorized individuals from accessing your records?

"Look for the right software after you have developed a good basic understanding of your hardware options."

—To the extent that it is identifiable, how many people/businesses use the software, and are they satisfied with it and the vendor? If possible, talk to current users.

—Is it a CP/M (Control Program for Microcomputers) program? CP/M is the most popular independent operating system in the United States. It was developed by Digital Research, and is desirable over other systems. Most of the better programs written for microcomputers are written in CP/M.

—Have you seen the software system work? Obtain copies of a printout; software vendors will usually provide them free of charge. Get a good feeling for what the software can do for you. If possible, go see it work in a firm like yours.[35, 36]

The most important of your software purchases will be a good legal billing and timekeeping system. "A lawyer has two big problems: getting all the work done and billing for it promptly. He will not get paid for services if he forgets to bill or bills too late. Without an efficient billing program, there isn't enough time for the lawyer to do a thorough job of checking each file for his professional time. Consequently, a great deal of time may never get billed. Other time may never get picked up until months later ... Clients know with computerized billing that the law firm employs a regular, systematic billing method .... Clients more readily accept computer-printed bills .... (such a system) can increase income by approximately 25% to 35%."[37] Look for a program that offers as many of the following features as possible: automatic billing with aging; instant access to client records; full transaction and treatment details; a timekeeping program with cumulative total of hours and amount billed for each attorney; a general ledger program; an accounts receivable/payable program; a conflict of interest notation program; a docket control program; profit analysis reports; budget analysis; and timely financial reports. In addition, the program might also include a word processing/text editing program, a mailing list/labels program, and a litigation support program. The latter would hopefully store, cross-reference, and retrieve documents. A good billing/timekeeping software program should allow for:

—At least 600 active client accounts.

—the issuing of bills at straight time, bills discounted by any per cent, flat fee bills, monthly retainer bills, contingency fee bills, "no charge" bills, and administrative time "bills" for in-house information and planning.

—A summary activity report on each attorney which would indicate the amount billed out, amount paid in out-of-pocket expenses for clients, amount collected in fees, total accounts

"The most important of your software purchases will be a good legal billing and timekeeping system."

receivable amount, and total hours spent on each account.

—A summary activity report for the law firm showing the totals for each of the above individual reports.

—A breakdown of the number of hours spent on each charge category or type of transaction.[38]

Your billing/timekeeping software should be your best management tool, and should allow you to examine each client record, each attorney's production, and your financial records in depth.

One final caveat to this section: no software package has everything that everyone wants. Look for what you need, separate what is necessary and efficient from the frills and extras, and buy the best that you can afford.

III.

Hardware

The term "hardware" refers to the electronic and mechnical parts of the computer system, to include the central processing unit (CPU) with circuit boards and computer chips, and input and output devices such as a typewriter-like keyboard, a cathode ray tube (CRT) video display, storage devices, and printer.

Typically, hardware is selected to perform certain functions. In a law office, these functions would include word processing, information processing (docket and calendar maintenance, litigation support, and legal research), and data processing (fee and disbursement billings, general ledger, accounts receivable and payable, and payroll). As noted above "because of the difference among these ... (functions), coupled with the assortment of machines required to handle all of a law firms needs, (... it is possible that) a single-vendor approach cannot be used to merge word, information, and data processing requirements, no matter how extensive the resulting installation may be. Conversely, if a multi-vendor approach is chosen, imaginative,innovative approaches will be needed to achieve compatibility among dissimilar devices."[39]

For a small law office, a computer system should be composed of these basic elements: 64K to 128K or more of random access memory (RAM); an 80-column video monitor; a complete typewriter-like keyboard; two floppy disk drives and a hard disk system for large amounts of storage; a high quality dot-matrix printer and letter quality printer, and appropriate software to operate the hardware.

One further consideration: a higher price tag does not necessarily mean a better computer. Benchmark tests conducted by the Business Research Division of the University of Colorado in Boulder showed that some computers outperformed rival machines costing twice as much.[40] Consider whether the expensive extra features are really necessary.

The Central Processing Unit

An important part of the hardware is its memory capability. The amount of memory that a computer has determines how much it can do. "The working storage area of the computer is called RAM .... The essence of RAM is that information can be stored and retrieved in any location independently of anything else stored there. RAM is usually packaged in the form of integrated circuits or 'chips'. Each chip has a capacity which is measured as so many 'K' bits of data. 'K' means Kilo, and when applied to computers represents 1024. Thus, a 16K RAM chip has a capacity of 16x1024 or 16,384 bits."[41] RAM is lost when the computer is shut off.

ROM, or read only memory, is permanently etched into a chip's circuitry, and lets you retrieve data or instructions permanently stored inside the memory. You cannot change or write into ROM.

Memory and Storage

Memory and storage is accomplished through cassette tapes, floppy disks, or hard disks, and related equipment such as cassette tape players or disk drives. Cassette tapes provide a slow system for storage and retrieval, and are limited in storage capacity. They are, therefore, inadequate for use in a law office computer system.

A small law office computer operation will use floppy disks and disk drives, and some type of hard disk system for greater storage capability. A floppy disk drive is " ... a mechanical device that acts much like a stereo player as the needle picks up sounds from a record. The disk drive picks up digital signals stored on a round piece of metalic oxide plastic ... (a floppy disk) and transmits the data in electronic pulses to a computer. Floppy disks come in three sizes—a standard eight (8) inch (disk), a five-and-a-quarter (5 1/4) inch so-called mini-floppy (disk), and a new three (3) inch mini-mini floppy disk introduced from Japan in early 1981. Different ... (disks) can store different amounts of ... information because they have different densities. Standard is single density, while double density crams ... twice as much information into the same amount of space. And ... (disks) can either store information on one or both sides."[42, 43]

Floppy disk drive cost between $400 and $1200, including a special circuit board that plugs into the computer. Two disk drives are recommended in order to eliminate the need for frequent changes of disks, and to allow for faster access to data.[44]

Hard disk drives store data in millions of bits and when added to a microcomputer blur the distinction between microcomputers and larger computers. As compared to floppy disks, they are higher in quality and more reliable. They are assembled in superclean rooms and are permanently sealed to protect against the elements; you never touch the hard disk. A hard disk drive will allow you to integrate all of your programs into one system, and you won't be inserting and removing floppy disks all the time.[45]

Further hard disk advantages include instant access to any file; time savings, not only from not having to change floppy disks often, but also from not having to worry about special storage of

floppy disks for protection; cleanliness, which not only allows the hard disk to run more reliably than floppy disks, but also allows the disk system to process data faster; and, multi user access, allowing for several computer "stations" to be attached to a single hard disk system. The latter point is especially advantageous when several people have to access large amounts of data at the same time.[46]

The problem with any storage system is that a back-up system is needed to protect against loss or damage of data and information. With floppy disks, a typical back-up system would involve the copying of data from one disk to another, and storing the second disk in some safe place.

With hard disk systems, there are three alternatives. If the system has floppy disk drives along with a hard disk system, you can copy each day's transactions onto floppy disks and store the floppy disks in a safe place. Some hard disk producers combine their disk system with a tape cartridge system. The data is automatically stored on tape, as well as the disk, and the tape can be removed and stored in a different location. The Corvus System uses a video tape recorder for a back-up system, which holds 100 million bits of data on one inexpensive video cartridge.[47]

The cost of hard disk drives depends on the amount of storage capability. Some large storage systems cost the same as systems with half the storage capability, however.[48]

Monitor

The system monitor, or cathode ray tube video display (CRT), should be at least twelve (12) inch screen models with 80-column or full text capability. Not all computers allow for a full text display of 80-columns. Other options would include models that tilt and swivel for a more comfortable view, and a choice of screen color: black/white or black/green. The green screen may be softer on the eyes.

Printers

A law office, by the nature of the paperwork and bills generated, will need a printer or two. You will want to know what printers work with what computers, what features they offer, and what they cost.

The most difficult part of selecting a printer is determining what type of printer and what features you need. Types of printers include thermal; electro-static; dot-matrix impact; thimble, ball, daisy wheel impact; and ink jet printers. "In general, each category of printer creates better looking printing than the preceding category, and costs correspondingly more."[49] Printer features include special printing abilities, print speed (in characters per second or (CPS)), paper feed mechanisms, size of paper accepted, number of printable columns, noise level, size and weight, graphics capability, and upper/lower case capability with full descending letters in lower case.[50]

Thermal and electrostatic printers are non-impact type printers. They are both inexpensive and virtually silent in operation. Both printers, however, use special paper which often costs more than plain paper, and is harder to find.[51, 52] They are not recommended for a law office operation.

Dot-matrix printers are impact type printers which offer a range of printing speeds, precision, reliability, graphics ability, and long lasting print heads. "As a purchaser you will want to know the size of the dot-matrix, which is related to the number of pins in the print head. With only a few pins, the print head will be less expensive and less prone to failure ... With more pins, and therefore more locations for dots, you can have more attractive characters ... Nine pins allows for lower case (letters) with descenders."[53] Dot-matrix printers are not "letter quality" printers, but they are reliable and sturdy. "*Creative Computing* (magazine) has printed out twenty-thousand pages on three Epson printers without a single service call. Epson claims a print head life of one hundred million characters, and you can replace the print head for $30.00. They also claim a mean time between failures of five million lines and a return rate of less than one-half of one percent."[54] A dot-matrix printer will be useful for printing internal reports and draft documents, and your system should have at least one. They cost between $500 and $3500 depending on the size of the dot matrix, graphics capability, and print speed.

Thimble, ball, and daisy wheel printers are also impact-type printers. People are probably most familiar with the IBM Selectric ball printer, as it is widely used in business offices today. These are the "letter quality" printers, and are best suited for "final" documents in a word processing application. While the printing capability of these printers is excellent, they are less reliable than dot-matrix printers. Your office should have at least one of these printers, but rely on a dot-matrix printer for drafts. Letter quality printers cost between $2000 and $5000, depending on what features are included.

"How paper is pulled through the printer can make a major difference in the cost of a printer. The common options are friction feed, pin feed, and tractor feed. Friction feed simply pulls paper through like a typewriter. This is ideal for using stationery, envelopes, and ordinary sheets of paper .... Traction or pin feed printers require special paper with holes along side margins .... Usually a tractor gives you the best registration, followed by pin feed, with friction feed giving poor registration. Registration is a technical term for positioning a sheet of paper precisely so that a dot can go in exactly the right place .... Precise registration is important when you are using superscripts and subscripts ..."[55] Other considerations would include whether or not the printer can use multi-part forms and whether it has a rubber, steel or plastic platen (roller). Rubber is best.

Width of the printer is also important. "A printer used for letters needs to accept eight-and-a-half (8 1/2) inch paper with seventy-two (72) to eighty (80) columns across. A printer used for business or financial reports needs to print one hundred and thirty two (132) columns across ..."[56] For the small law office, a printer with 80-column capability will be sufficient.

Noise may be of importance in a small office. "Some printers are so noisy that it is uncomfortable to share an office with them .... Soundproofing and shielding may be available to make it quieter."[57] When purchasing a printer be sure to check the specifications for the sound level. Seventy (70) decibels is about the limit.

Print speed is " ... a subtle feature that is hard to evaluate until it is too late and you have already bought a printer that is too slow .... In general, anything below sixty (60) CPS is very slow, up to one hundred (100) CPS is slow, and over six hundred (600) lines per second (LPS) is fast. However, it is hard to compare speed by specifications. A twenty-five (25) CPS Vista printer is actually faster than a fifty-five (55) CPS NEC Spinwriter on some materials .... Some printers, like the Epson series ...

ignore blank spaces for faster printing."[58] Unless you have a particular need for very fast printing in your office, the best rule of thumb is to watch a demonstration of several printers and choose one that you think will meet your needs. Recall that we are talking specifications that are in characters or lines per second. A printer that can print a document two or three seconds faster for you than another printer may not be that necessary. And the "slower" printer may cost hundreds of dollars less.

Special features are important, especially when using word processing. Your printer should have at least these capabilities: underlining, superscript and subscript, boldface, double size and condensed characters, bi-directional printing, and memory buffer (holds characters yet to be printed).

Ask about the cost of supplies for the printer. Does it take special, expensive paper? What does a ribbon cost? Can the supplies be readily obtained?

As always, read the user's manual and make sure that you and your staff can easily understand how the printer works and any special instructions: pay special attention to price versus features. "It's very easy to spend more dollars than necessary to get the desired functions."[59] And, make sure that the printer you buy can be connected and run with your computer.

Modems

A telephone modem lets the computer talk with other computers and time sharing systems, i.e. data banks. "They perform the basic but essential function of converting digital data to analog form and back again, thus enabling terminals and remote computers to communicate over ordinary telephone lines."[60] Modems are rated by BAUD rate or bits per second. Three hundred (300) BAUD (standard for telephone communication) is slow: twelve hundred (1200) BAUD is average. Modems cost between $175 and $600, depending on BAUD rate; operational software should be included in the price.

Should you want to be able to print a copy of what is on the video screen after you have accessed a data bank via a modem, it may be necessary to purchase special software which will allow you to move the screen data to a disk for printing.

"[A] higher price tag does not necessarily mean a better computer."

Operating System

"Any computer worthy of the name needs some sort of operating system. The purpose of this special kind of computer program is to orchestrate a system's various resources (memory, processor, disk drives, peripherals, etc.) so that useful work can be done .... (The operating system) creates the environment the applications programs need to work properly .... We have seen CP/M emerge as one of the most popular of the microcomputer operating systems."[61]

Other Considerations

The question is often raised, should I buy a new product or one that has been on the market for a while? Or, can I buy a used computer?

The latter is easy to answer. With used equipment, you do not know what has happened to it previously or how it was treated. And, it is unlikely to carry with it warranties suitable for your needs. Stay away from used equipment.

The question of new or old product is more difficult. The new product may look exciting and carry all of the latest gadgetry. However, "the history of new product introductions in the computer industry is replete with examples of delivery of hardware before all of the bugs are worked out. Many vendors rely on the first installation to find operational problems .... Acquiring a new product may create unique problems and delay successful implementation .... The longer the model of hardware has been used in the marketplace, the greater the alternative software resources from which to choose." You should consider only computer hardware that has been on the market for a year or more, and has been on the market for a year or more, and has been tested by hundreds of users. Reliability should be a considerable factor in making your computer selection.

Make sure that whatever system you put together is expandable. Hopefully, your law practice will grow, and you want your computer system to be able to grow with you. Plan your system so that you have a back-up system. What will you do if your letter quality printer breaks down? In the short example of a computerized law office at the beginning of this paper, each "station" was capable of doing what the other stations could do, i.e. they could back-up each other. Will you need two letter quality printers, or will the vendor who sold you the printer give you a back-up printer when yours in need of repair? "If ... your system will be composed of components from several manufacturers which have to be put together, or you are likely to need fast service on your system, you would do well to consider paying a little more for your computer in order to have ready access to the knowledgable folks ..." at the store where you bought the computer and peripherals.[63]

IV.

Research

"Marshall McLuhan predicted the impossible with his communications concept of the 'global village' in the 1960's. The critics scoffed, but the impossible is now a reality in the form of information networks. McLuhan envisioned that someday the entire world would be connected by a common network. This network would be a data bank that could provide information pertinent to everyday life ..."[64] McLuhan's prediction is not only today's reality, but the technology in this area is such that people all over the United States are simply accessing appropriate data banks through their computers and a telephone connection, calling up the topic of their choice, and researching the information they need, while sitting in their home or office.

DIALOG INFORMATION SERVICES[65] is a widely used information retrieval service that provides you with quick, precise, cost effective, and easy to use access to as many millions of documents as are available in major

research libraries. DIALOG provides you with access to more than fifty million references to journal and newspaper articles, conference papers, and reports in over one hundred and twenty (120) data bases covering all areas of science, technology, business, medicine, social science, current affairs, and the humanities. Examples of data bases accessed include Federal Register Abstracts, Excerpta Medica, Medline, Claims/United States Patents, the Environmental Bibliography, and Legal Resource Index. The latter provides cover-to-cover indexing of over 660 key law journals and five law newspapers.

DIALOG allows you to search by typing words or phrases from titles, abstracts, or subjects, as well as by author and dates. No computer skills are required, and training and documentation are available, both in manual form and through special training sessions held in several major cities. A toll free telephone "help" line is also available.

The DIALOG system is available for use twenty-two (22) hours a day every work day, plus special weekend hours. The cost of the system is based on the amount of time you use the service. An average search cost between $5 and $15. There are no minimum subscription fees, and up to $100 of connect time per first time user account is provided at no charge during the first month of service. As an example of costs, the Legal Resource Index is $90 per on line hour; Excerpta Medica is $65; Medline is $35; and Claims/United States Patents is $95. In addition to the data base cost, the system uses the TELENET or TYMNET data communications network services which cost $8.00 per hour.

DIALOG also gives you, at the end of each search, an estimated cost of the search for your use in client billing.

As with the above data banks, your computer may also communicate over standard telephone lines to legal research centers such as WESTLAW.[66] WESTLAW is a full text-plus data base, with complete text of court opinions plus case synopsis and headnotes, the use of which can often save significant time and money in computer searches. WESTLAW also provides the Federal Tax Data Base, the entire United States Code, the Bankruptcy Reporter, and the Code of Federal Regulations. WESTLAW allows you to frame search queries in your own language. In addition, you can search for names of judges, lawyers, witnesses, names of places or products, and medical and chemical terms. A Computerized Shepard's Citation Service is also provided, giving the history of any case plus a list of all cases which have cited that case. As with DIALOG, there is a customer "hotline" for answers to problems plus on-line refresher courses.[67]

Vendors

Some vendors assure the prospective buyer that the computer system being purchased will do everything they need. When the prospective buyer becomes the owner, and calls back, the vendor says something like, "Oh, I didn't understand what you were doing. What you need is ...."[68] The selection of a vendor can be as important as the selection of your hardware and software. You and your vendor will form an important partnership, and if the above situation, and other unnecessary difficulties, are to be avoided, you would do well to make your selection wisely, using good business sense.

As noted earlier, when developing a computer system that will be composed of components from several hardware manufacturers, and when purchasing software programs from a variety of software manufacturers, you will most likely be working with a vendor who represents a variety of manufacturers. Visit local computer stores, and talk to the people who run it as well as the salespeople. Look for, or do the following:

—Are they friendly? Do they seem to know what they are talking about? Is the store neat and clean?

—The vendor should be able to provide you with references and information about their business. Does the vendor have a good professional reputation? Are they in sound financial condition? Do they employ qualified, experienced staff? Ask for the names of three (3) to five (5) of their customers, preferably those that have used systems similar to the ones you may purchase, and talk to those people about the hardware, software, the reputation of the vendor, and dealer support. Are they satisfied with their choice of vendor?

—Bring with you actual examples of the type of work that you need done. Ask the salespeople if they sell a hardware/software system that will do that work.

—Does the salesperson explore your problem before suggesting a solution? Is she interested enough in your problem to explore it in depth with you? The failure to talk numbers is a dangerous signal. A detailed discussion may reveal other problems the computer may be able to solve. If the salesperson steers you to the closest machine without extensive questioning, go somewhere else.

—Does the vendor sell a variety of brands and types of equipment? If the vendor has a single model or size, there is little point in discussing the details of your problem.

—Expect to see a demonstration. This is essential. Unless you see the hardware and software perform the functions that you want done, you are simply buying a machine and a promise. Don't expect to see your job done exactly, but you should see something that comes pretty close to your needs.

—Can the salespeople operate the hardware? Are they knowledgeable in various software systems and do they know what each is capable of?

—Does the vendor carry all of the supplies necessary for your potential system?

—What if your system or a component needs repair? Will your vendor come to your office to fix it? How long will you have to wait for service? Will you have to bring the broken components to your vendor? Can the vendor do repairs on the premises? Will repair work have to be sent to the manufacturer? Will you have to find an independent person or company to do repair work? When a component breaks down, will the vendor loan you a replacement while repairs are being made?

The key is to be prepared: use good business sense, compare vendors and systems, and know about hardware and software systems a well as your own wants and needs before you talk to vendors.

Part of using good business sense is to develop and negotiate a purchase contract with your vendor. Computer stores may not utilize purchase contracts for most of their sales, but for you it is an

absolute necessity. If a vendor does not wish to develop a purchase contract, move on to another vendor. If the vendor has a "boilerplate" contract, make sure that you incorporate your needs, requirements, and own protection. If necessary, re-write the "boilerplate" contract, until it is an accurate reflection of the intent of both parties, a meeting of the minds.

"The selection of a vendor can be as important as the selection of your hardware and software."

The subject of negotiating a computer system/software purchase contract is sufficient to comprise another whole paper. For a detailed account of the procedure, pitfalls, and recommendations, the reader is referred to COMPUTER CONTRACT NEGOTIATIONS by Joseph Auer and Edison Harris, Van Nostrand Reinhold Company, New York, 1981. For the purpose of this paper, a few examples are given of considerations that should be incorporated into a purchase contract:

—"Vendors uniformly warrant their hardware to operate in accordance with their published performance specifications... "[69] Your contract should incorporate all of the hardware specifications, as well as a complete description of each piece of hardware, to include model number, manufacturer, and purchase price. The same for software.

—Maintenance and service alternatives: include a statement on how maintenance will be conducted. Is there a preventive maintenance program? A monthly maintenance program? How will repairs be accomplished? Will a "loaner" be provided while repairs are being done? Will the vendor pick up your repair work, or must you deliver it to the vendor?

—Include acceptance criteria. How much time will you have to adequately and thoroughly test the system prior to final acceptance and payment?

—Vendor performance criteria. Establish realistic milestones for vendor performance and penalities for failure to meet those milestones. When will the components be delivered? When will the system be set up and operational? What penalties are assessed if these dates are not met?

—Express and implied warranties, including any representations that the vendor has made regarding either the hardware or software.

—Ancillary concerns. Will staff be trained? How? Will the vendor come to your office to train staff? Will classes be held at the vendor's location? What kind of support will you get? Is there a twenty-four (24) hour "help" line? Are there other services that the vendor is expected to perform?

—Remedies: what happens if the contract fails in whole or part?

—An Act of God clause to protect you and the vendor from failure to comply with the terms and conditions of the contract because of events over which you had no control.

Before you make your purchase, it is advisable to gather all of your new knowledge about hardware and software, your needs and wants, and your knowledge about vendors and what they can and cannot provide, and put it all down in a Request For Proposal (RFP) which will specify in detail equipment specifications and other standards for acquisition. While the writer appreciates that the drafting of a good RFP is a tedious and time-consuming task, there are major benefits:

—It will force you to analyze all aspects of the acquisition before negotiations begin with a vendor.

—It puts you in the driver's seat. The vendor must react to you.

—It clarifies your needs in writing at the beginning of the purchase process. It reduces the chance of the vendor claiming that it did not fully understand your needs.

—It enhances competition and improves the likelihood of vendor concessions.[70]

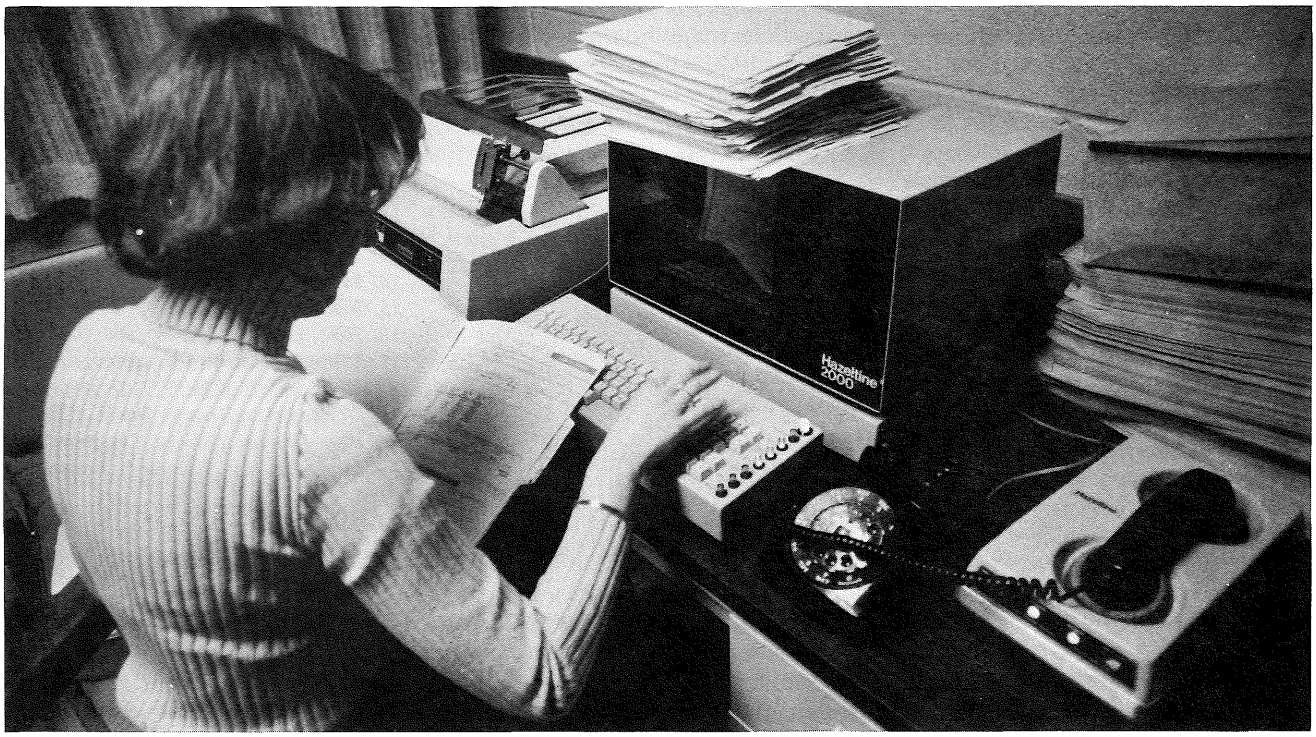
An excellent example of an RFP, contract provisions and maintenance agreements, as well as software agreements and a contract checklist can be found in COMPUTER CONTRACT NEGOTIATIONS.[71]

With a fundamental understanding of how a microcomputer works, knowledge of what components are needed for a law office system, and a thorough understanding of how your law office operates, you can build a computer system for you law office, and enjoy the benefits of a computerized system.

Notes

1. Keane, Barry P. "Computerizing Your Business: A Beginner's Guide", *Interface Age*, Vol. 6, Issue 8, August, 1981, p.84
2. Fenstermacher, Sandi and Foster, Susan, "Business Computing: An Easement For Frustration—Automating The Real Estate Office", *Personal Computing*, Vol. V, No. 8, Oct. 1981, p. 104
3. Tell, Larry. "Law Firm Computers Come of Age", *The National Law Journal*, Vol. 4, No. 11, November 23, 1981, p. 1
4. Sternin, Bernard, presentation to the Massachusetts Bar Association on word processing, Sheraton Plaza Hotel, Boston, Massachusetts, September 26, 1981
5. Musselman, Francis H., "Law Office Uses—Now And In The Future", *Computers and the Law: An Introductory Handbook*, Third Edition, Commerce Clearing House, Inc., N.Y., 1981, p. 52
6. Martin, Norman M., "How to Implement Integrated Office Systems", *American Bar Association Journal*, Vol. 67, March, 1981, p. 298
7. *Ibid.*, p. 300
8. Miastkowski, Stan, "A Computer For Your Small Business", *Popular Computing*, Vol. 1, No. 1, Nov. 1981, p. 36
9. "Which Small-Business Computer For You?", *Computers '82*, Vol. 1, No. 3, Oct. 1981, p. 62
10. Erickson, Jonathan, "What Popular Computers Can't Do", *Popular Computing*, Vol. 1, No. 1, Nov. 1981, p. 52
11. Miastkowski, *Op.Cit.*, p. 36
12. Keane, *Op.Cit.*, p. 84
13. Musselman, *Op.Cit.*, p. 53
14. Martin, *Op.Cit.*, p. 298
15. Musselman, *Op.Cit.*, p. 53
16. *Ibid.*, p. 53
17. "Which Small-Business Computer For You?", *Op.Cit.*, p. 64
18. See generaly, Benevy, David, "Tips On Selecting A Small Business Computer", *Interface Age*, Vol. 7, Issue 1, January, 1982, p. 66
19. Martin, Norman M., "An Evaluation Matrix: Aid To The Equipment Selection Process", *American Bar Association Journal*, Vol. 67, October, 1981, p. 1270-71
20. Musselman, *Op.Cit.*, p.53
21. Keane, *Op.Cit.*, p. 85
22. Musselman, *Op.Cit.*, p. 53
23. Martin, "How To Implement Integrated Office Systems", *Op.Cit.*, p. 300

24. Martin, "An Evaluation Matrix: Aid To The Equipment Selection Process", *Op.Cit.,* p. 1270
25. "Which Small-Business Computer For You?", *Op.Cit.,* p.64
26. Vogel, Peter S., "Computer Wars: Vendor v. Lawyer", *The National Law Journal,* Vol. 4, No. 8, Nov. 2, 1981, p. 20
27. "Which Small-Business Computer For You?", *Op.Cit.,* p. 63
28. One vendor of a single computer system and its prepackaged law office software system, sell the software alone for $35,000.
29. Vogel, *Op.Cit.,* p.20
30. Khalsa, Darshan Singh, "Professional Computing: Custom v. Canned Software: What Do You Need?", *Personal Computing,* Vol. V, No. 8, Oct. 1981, p. 125
31. *Ibid.,* p. 125, 129
32. *Ibid.,* p. 125
33. *Ibid.,* p. 124-125
34. *Ibid.,* p. 129
35. "At Last, Good Business Software", *Computers '82,* Vol. 1, No. 3, Oct. 1981, p. 66
36. Smith, Robert Sellers, and McIntyre, Joan, "Computerized Billing For The Law Office," *Interface Age,* Vol. 6, Issue 6, June, 1981, p. 72
37. *Ibid.,* p. 71
38. *Ibid.,* p. 71-72
39. Martin, "How To Implement Integrated Office Systems", *Op.Cit.,* p. 298
40. Kehoe, Louise, "Professional Computing: Engineers Get Personal With Computers", *Personal Computing,* Vol. V, No. 8, Oct. 1981, p. 29
41. Kubeck, Bill, "So You Want More Memory", *Creative Computing Buyer's Guide,* Vol. 7, No. 9, Sept. 1981, p. 84
42. "The ABCs Of Personal Computing", *Computers '82,* Vol. 1, No. 3, Oct. 1981, p. 6
43. "Choosing Your Popular Computer", *Popular Computing,* Vol. 1, No. 1, Nov. 1981, p. 18
44. *Ibid.,* p. 18
45. "A Storage Advance That (Almost) Won't Quit", *Computers '82,* Vol. 1, No. 3, Oct. 1981, p. 76
46. *Ibid.,* p.76-77
47. *Ibid.,* p. 77
48. The LOBO drive, Model 7710, 10 MB system for the TRS-80 II and Apple computers cost approximately $4995. The DISCUS M26 25 MB system cost the same.
49. Blank, George, "So You Want To Buy A Printer", *Creative Computing Buyer's Guide,* Vol. 7, No. 9, Sept. 1981, p. 68
50. "Special Report: Putting Printers In Perspective-A Personal Computing Guide Through The Printer Jungle", *Personal Computing,* Vol. V, No. 8, Oct. 1981, p. 68-69, 71
51. *Ibid.,* p. 78
52. Blank, *Op.Cit.,* p. 70
53. *Ibid.,* p. 68
54. *Ibid.,* p. 72
55. *Ibid.,* p. 70
56. *Ibid.,* p. 70
57. *Ibid.,* p. 72
58. *Ibid.,* p. 72
59. "Special Report: Putting Printers in Perspective—A Personal Computing Guide Through the Printer Jungle", *Op.Cit.,* p. 67, 75
60. Martin, "How To Implement Integrated Office Systems", *Op.Cit.,* p. 300
61. "Editor's Notebook", *Interface Age,* Vol. 7, Issue 1, Jan. 1982, p. 6
62. Vogel, *Op.Cit.,* p. 20
63. Staples, Betsy, "Which Computer Is For You?", *Creative Computing Buyer's Guide,* Vol. 7, No. 9, Sept. 1981, p. 14
64. Holman, Elli, "Business Computing: The Global Link: Data Banks", *Personal Computing,* Vol. V, No. 8, Oct. 1981, p. 35
65. 3460 Hillview Avenue, Palo Alto, California 94304
66. West Publishing Company, 50 W. Kellogg Blvd., P.O. Box 3526, St. Paul, Minn. 55165. Tel. No. 612-228-2500
67. Not all microcomputers are compatible at this time with WESTLAW. However, it appears as though the problem is with the development of software to allow a particular microcomputer to access the WESTLAW system. Computer manufacturers and software developers will be developing appropriate software for most of the more popular computers.
68. Gabell, David, "Editorial", *Personal Computing,* Vol. V, No. 8, Oct. 1981, p. 5
69. Vogel, *Op.Cit.,* p. 20
70. Auer, Joseph, and Harris, Charles Edison, *Computer Contract Negotiations,* Van Nostrand Reinhold Company, New York, 1981, p. 128-29
71. *Ibid.,* RFP, p. 367; Contract Provisions, p. 346; Software Agreements, p. 289; Contract Checklist, p. 323; Maintenance Agreements, p. 275



Personal Computer Applications for the Sole Practitioner

by Dirk H. Buikema

Introduction

The last decade has seen the power of computers increase while their cost has continued to spiral downward. While at one time only the Hale and Dorrs of the legal world could afford the luxury of word and data processing, microcomputers are now priced so that even individual lawyers can afford them. Law firms originally began to use computers in the 1960's when most of the work was done by service bureaus via the so-called batch method. It was not until the advent of the minicomputer in the 1970's and the development of software for legal applications, that firms began to purchase their own systems.

The day has now arrived for the application of computer technology on the more intimate scale of 1 to 1: the attorney with his own personal computer. Hardware which is within the budget of a sole practitioner has been available for a few years, and now the software and databases which justify the purchase have arrived. Many systems which have been promoted for use in the small law office still require substantial investments (over $10,000), but a personal computer system which would perform many of the same functions can be assembled for around $5,000. In fact, there is a burgeoning interest in the use of personal computers by solo lawyers.[1] There is no reason that individual attorneys cannot benefit from the efficiency, organization and time savings which a properly used computer can yield.

There are a variety of benefits that computer technology can bestow upon the lawyer. Improvements in billing and accounting can increase cash flow and profitability.[2] Estimates of the increase in cash flow that may result from a frequent billing range up to 25 percent, and less effort is required than with manual billing.[3] Considerable productivity increases can be expected, along with some elimination of the drudgery of clerical work.[4] Finally, a greater variety of information will be at the attorney's fingertips when any management decision must be made.

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The small body of literature available on computer applications in a small law office tends toward a generalized discussion of the pros and cons of the use of computers, and advice on how to purchase a system to fit an office's needs.[5] In this article, the reader will be led through an item by item analysis of several useful applications with enough detail for the individual attorney to decide whether or not the benefits outweigh the expense. The following topics will be covered:

I. System requirements
II. Word processing and drafting
III. Law office management
IV. Attorney personal finances
V. Tax planning and preparation
VI. Estate planning
VII. Data base programs for filing and forms
VIII. On-line data bases

In an effort to be specific, detailed and informative, only one computer will be discussed: the "Apple II plus" personal computer. While the Apple might be regarded as somewhat outmoded in terms of technology, it has been in existence for a long enough period, and is used by such a broad base of people, that a larger variety of inexpensive software and peripherals is available for this small computer than for any other.

I. System Requirements

The acquisition of hardware, software and peripherals is a somewhat complicated proposition which is full of pitfalls for the unwary. The situation is complicated by the fact that most sales people are not very familiar with the equipment that they sell (especially software). If they were very knowledgeable, they would obviously be better paid in something other than sales. As a result, the buyer, to a large extent, must rely on his or her own knowledge. The trouble is, he or she may be totally unfamiliar with computers. Therefore, the following detail is provided on purchasing a system, since the reader might benefit from the author's familiarity with specific equipment.

The buyer must be prepared to spend much more than the price of a basic packaged system in order to have a computer which fulfills his or her needs. The stores tend, like car dealers, to have a very attractive base price, but they make their real profit on the options that they sell. For this reason, the buyer should purchase the basic package from a retail store, and then order any optional accessories from a mail order house. In this way, the buyer can obtain the benefits of the service and consulting available from the store for the most important equipment, and save a lot of money on accessories and software. A second problem is that there is such a wide variety of accessories available for the Apple computer, that it is difficult to judge what you really need. Of course, this also allows the user to upgrade his machine as his needs increase.

"... [A] personal computer system [for use in the small law office] can be assembled for around $5000."

Because of the difficulty of assembling the proper components, this section of the article is devoted to a thorough discussion of what items to buy, where to buy them, their cost and what they will do. The basic Apple must be seen as a very simple chassis that can be upgraded into a highly professional computer with the addition of a few options. The suggested equipment will provide neither the minimum nor the most elaborate system, but will give the user a system costing under $5,000 which is equally proficient at either word or data processing. This system will fulfill the hardware requirements for all applications subsequently discussed in this article.

The fundamental requirements are the computer itself, which consists of the central processing unit (C.P.U.) and a keyboard, a monitor, a disk drive and an interface circuit board for the disk drive (known as a "controller" ... it allows the information on the magnetic disk storage media to be exchanged with the C.P.U.). This equipment is commonly sold as a specially priced package in retail stores, and is best purchased at a store so that service is available.

Next, a letter quality printer must be added. Letter quality printers are much more expensive than dot matrix printers, but a reliable one is essential for any law office. A good value would be the "Starwriter" by C. Itoh which prints at a speed of about 45 w.p.m., and can be purchased by mail for $1,475.[6] Any printer also requires an interface card and cable which allows the computer to communicate with the printer. The card is plugged into one of eight slots in the Apple's main board, and the cable passes out the back of the computer to the printer. One such card is the "Grappler" by Orange Micro which also is best purchased by mail order for $135.

Another essential is a second disk drive, so that the operator does not have to constantly change the "floppies", but may simply instruct the computer to read information from the disk that is in the second drive. Some programs require two disk drives. In addition, it expedites the necessary chore of making backup copies; necessary because of the vulnerability of disks to static electricity, scratches, dust, sneezing and maybe even dirty looks. It is unnecessary, however, to buy Apple's expensive disk drive as a second, since several companies make cheaper drives which are fully compatible with the Apple. One such disk drive is made by Micro-Sci, and costs $299 by mail order. Fortunately, no additional controller card is required, because each card will handle two drives.

There are two serious limitations to the basic Apple II which rule out any genuine word processing applications. First, anything that is typed on the monitor appears in upper case, JUST LIKE THIS, although printing may be accomplished in both upper and lower case. Therefore, the text on the screen is difficult to visualize as it will appear in finished form. Additionally, the shift keys on the Apple do not function in the same way as a typewriter. Second, the number of words of a text which are visible upon the monitor screen at any one time is very small, because the line on the screen is only 40 characters across; as opposed to a typewriter which fits 80 characters across an 8½ inch page. There are, however, a few companies which manufacture accessories for the Apple which correct these deficiencies. One of these companies is Videx. Their "Keyboard Enhancer II" replaces the circuit board underneath the keyboard, through which the keyboard communicates with the C.P.U., and it also comes with a lower case chip that replaces an original chip in the Apple's board. The result is upper and lower case display and a keyboard that is like a typewriter's. In addition, Videx manufactures a circuit board, the "Videoterm", which provides an 80 column display. The result is very sophisticated word processing hardware for a low cost. By mail order, the Enhancer II would cost $119, and the Videoterm $239. A $25 part called the "Softswitch", which automatically switches the video display from 40 to 80 column, is also required.

If the user desires to access data bases such as Westlaw, Dow Jones News/Retrieval, the Source, Compuserve or the New York Times data bank, a modem is required to enable the computer to communicate over telephone lines. For the Apple II the Hayes "Micromodem II" is recommended. It is quite expensive, listing for $349, but can be purchased for $289 by mail.

The above composes all hardware requirements for a very powerful word and data processor for a total cost of $4,731, and leaves a surplus for the purchase of software, while remaining within the goal of a $5,000 system. Now that all this expensive hardware is assembled, the problem becomes one of applying it in ways that justify the expenditure.

II. Word Processing and Drafting

Word processing is the technology which moved computers into the law office on a large scale, and is still the most important application for lawyers. Until the recent advances in the word processing capabilities of personal computers, it was questionable as to whether or not an attorney practicing on his own could justify the cost. Only ten years ago, Attorney Robert P. Bigelow,[7] was using an IBM communicating magcard selectric typewriter system in his office when he was a sole practitioner. This required an on-line connection with a central computer at a cost of $10 per hour, thus ruling out any use for general tasks such as correspondence. However, it was very useful for complex documents, such as wills and leases.[8] Even as late as 1978, word processing was regarded as a large system which should be avoided by small law offices.[9] Today, however, the existence of excellent software for personal computers such as the Apple, places word processing within reach of individual attorneys.

The Applewriter II word processing program, which has been selected as part of this example system, contains all the

basic features of a word processor. Corrections may easily be made on the screen prior to printing by simply backspacing. Words which have been deleted may be retrieved by using a key which is a "forward spacing" key — this also allows the writer to move strings of words around within a document. The replacement feature makes it possible to actually type over any text which has been previously entered; simultaneously erasing, and entering a correction. Large segments of text may be rearranged within a document, or different files which have been saved on a diskette can be merged.[10]

In addition to these basic features, the program also contains many useful extras such as automatic search and replacement of words, tabulation, a glossary capability and its own Word Processing Language which enables the user to create his or her own programs to speed up repetitive tasks.

The glossary is a file created by the user that simplifies the entering of repetitive words. By requesting the computer to enter an item from its glossary, the writer need only press a single key to "type" a segment of text up to 128 characters long. For example, a standard closing for a letter such as, "If you need any further information, please do not hesitate to call me. Thank you for your attention to this matter," is entered by pressing the key "1". The time saved is tremendous, especially since a different glossary term may be defined for every key on the keyboard.[11]

The truly exceptional capability of the Apple Writer II program, however, is the limitless potential of applications for the Word Processing Program Language. Even an attorney with little or no programming experience can design his or her own programs which will automatically edit or rewrite documents. As an example, for part of my work on this article I have created two of my own programs. It required 7 hours of experimentation to learn to program with this language for a person who has only the most rudimentary understanding of programming, but the use of these programs in a law practice could save a great deal of time in drafting and correspondence.

One of the programs that I have written, which I have called AUTO EDIT, allows the user to fill blanks in any form. When the program is executed the cursor automatically advances to the first blank in the form and cues the writer by asking for "NEW TEXT"; the

ILLUSTRATION ONE: The form with blanks [(1)*].**

UNITED STATES DISTRICT COURT

DISTRICT (1)***

UNITED STATES OF AMERICA Plaintiff	)	
VS.	)	NO. (2)***
(3)*** Defendant	)	

MOTION TO DISMISS INDICTMENT

The Defendant, (4)***, moves to dismiss the pending indictment on the following grounds (5)***:

(1) The Defendant has been denied his Fifth Amendment right to due process of law.

(2) The Defendant has been denied his right to a speedy trial under the Speedy Trial Act, 18 U.S.C. § 3161 et seq.

(3) There has been an unnecessary delay in bringing the Defendant to trial within the meaning of Rule 48 (b) of the Federal Rules of Criminal Procedure.

(4) The Defendant has been denied his right to a speedy trial under the Sixth Amendment.

ILLUSTRATION TWO: The completed form.

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA Plaintiff	)	
VS.	)	NO. 000111
JOHN DOE Defendant	)	

MOTION TO DISMISS INDICTMENT

The Defendant, John Doe, moves to dismiss the pending indictment on the following grounds supported by the accompanying MEMORANDUM OF LAW IN SUPPORT OF MOTION TO DISMISS and AFFIDAVIT:

(1) The Defendant has been denied his Fifth Amendment right to due process of law.

(2) The defendant has been denied his right to a speedy trial under the Speedy Trial Act, 18 U.S.C. § 3161 et seq.

(3) There has been an unnecessary delay in bringing the Defendant to trial within the meaning of Rule 48(b) of the Federal Rules of Criminal Procedure.

(4) The Defendant has been denied his right to a speedy trial under the Sixth Amendment.

Absolutely any document that is produced on the computer can be saved on a disk with the appropriate blanks just as in illustration one. Thereafter, whenever the same document might be useful in another case, it would only take a minute or two to make the needed changes and print the final document. (The above illustration was finished in less than one minute.)

proper text is entered from the keyboard, and the cursor skips to the next blank and repeats the procedure until the document is complete. The virtue of this program is flexibility. It works for any document in which numbered blanks have been substituted for any non-standard text. For example, the following two illustrations are of a motion to dismiss a federal criminal indictment on speedy trial grounds:

The second program which I developed is an example of a more complicated and specialized application of this software which automaticaly completes a simple will as the user enters data from the keyboard. This program is faster than using the above editing program. In the first step, it automatically seeks the blank will form on a diskette and loads it into the computer. Then it asks for the name of the testator and fills in all parts of the form where the name of the testator appears. In the next step, the program searches for numbered blanks in order and allows the operator to fill in the text, but it also searches for any other blanks in the will having the same number and automatically fills them in with the same text. This greatly speeds up preparation of a document like a will, because names of beneficiaries or other entries may appear several times within the will. The whole process requires approximately two minutes.

The Apple II computer may not be as easy to operate as dedicated word processing equipment, but as the above examples demonstrate, it is perfect for an attorney who is not afraid of computers, because he or she can adapt the system to personal needs and preferences. Thus, its flexibility can be a tremendous advantage, as the attorney can write programs suited to a particular specialty. Of course, there are many applications other than those discussed above; form letters, automatic addressing of letters and maintaining mailing lists are a few. When the estate tax laws change, for example, an attorney could quickly prepare a mailing to all persons for whom he has prepared a will, recommending that the client come into the office to have the will updated.

III. Law Office Management

The simple process of bookkeeping, billing clients and keeping time records can be impossibly time consuming for the sole practitioner, and hiring the staff necessary to perform such tasks can be the most costly component of overhead for the lawyer. Billing is especially vexatious for the sole practitioner who has no bookkeeper, and wants to spend his time practicing law — not bookkeeping.[12] The key element of maintaining the liquidity of a law office is regular and prompt entries of time spent on each case, so that bills can be rendered on a monthly basis.[13] The longer the attorney waits before sending a bill to the client, the more likely it is that the bill will not be collected.[14]

"... the existence of excellent software for personal computers ... places word processing within reach of individual attorneys."

In the past, lawyers have relied on various manually maintained written records in order to keep track of the cases being processed in the office and the time spent on them. Most attorneys who practice on their own have probably relied upon their own haphazard methods, but there are many stationery companies which have offered special forms and systems for keeping law office records.[15] Today, however, legal time management and billing software is already abundantly available for personal computers. Widespread use of this technology is only awaiting the day when all lawyers are "computer literate," and the day is not far-off when it will be impossible to graduate from college without being familiar with computers.

There are two basic types of law management programs which may be used in conjunction with the Apple II computer. The first type is written specifically for the Apple, and run on what is called the Disk Operating System (DOS). DOS is a program which is permanently built into the Apple computers read-only memory (ROM) that allows the computer to be used in conjunction with floppy disk drives, a set of instructions unique to the Apple. All computers have been built with their own unique operating system, so that software is not interchangeable between the different hardware. You cannot run an Apple program on a Radio Shack computer or visa versa. There is, however, another type of operating system known as "CPM" which was developed by a company called Digital Research that can be added to most personal computers as an accessory. This standardization enabled programmers to write software using the CPM system that could be used on almost any personal computer, and because of the degree to which this enlarged the potential market of users, a great deal of CPM based software exists, including legal time management and billing programs.

Unfortunately, this software is the most specialized and, therefore, the most expensive. Additionally, demonstrations of these programs were impossible to obtain, because the software companies will not allow such an expensive program to be borrowed for purposes of evaluation, for fear that unauthorized copies will be made, and few retail software outlets keep these specialized programs in stock. It is possible, however, to describe a few of the programs which are available for an Apple (or Apple with CPM added) based upon information from company brochures and law office management journals.[16]

Two of the programs which run directly on Apple DOS are "Professional Office Management,"[17] and "Compu-Law".[18] "Professional Office Management" is useful for management, bookkeeping and billing in an office of from 1 to 10 lawyers. This program will schedule appointments, record court time and research time and prepare all types of bills, including bills for professional legal service plans.[19] It also is the most modestly priced package at $400.[20]. By 1981, over 255 law offices were using this software.[21] "Compu-Law" is a program containing both management and word processing capabilities that will also serve from 1 to 10 lawyers. It has a larger number of features, such as case control analysis, interim and monthly billing, aged accounts receivable for a user selected time period, reports of fees, costs and payments by case, and a complete accounting system which will generate a balance sheet and income statement.[22] In addition, "Compu-Law" has an alphabetical client and case listing, case control analysis, rolodex, and critical date reminder.[23] The list of uses is quite extensive, and of course, you pay a lot more for "Compu-Law" (about $2,500).[24] Certainly, it is a program which deserves careful considera-

"... Legal time management and billing software is already abundantly available for personal computers."

tion, even at that price.

A wider range of legal management software is available based upon the CPM operating system. The Apple will run these programs if a CPM circuit board with its own ROM is added to one of the slots inside of the Apple.[25] A few examples would be "ESQ-1" Legal Time and Billing System,[26] "LAW-1"[27] and "VERDICT."[28]

"ESQ-1" is a comprehensive management system for a small law office (1 to 30 lawyers). Reports on unbilled work in process, reimbursable costs, accounts receivable, trust funds, current caseload and client/matter analysis are available with this system. Invoices may also be prepared.[29] The cost of this software starts at $2,000.[30]

"LAW-1" offers worksheets which aid in the preparation of bills, attorney productivity analysis, expense reports, ledgers for billing and payments and client/matter analysis.[31] It is also suitable for a sole practitioner, and is sold for $750.[32].

A final example of CPM based software is "VERDICT" which is advertised for use by a 1 to 25 person firm.[33] The interesting feature in this program is the ability to define standard transaction codes that allow the user to assign a number to an entry that is frequently repeated.[34] Data entry is greatly accelerated once the system has been set up. Provisions for bill preparation and mailing are especially detailed in this program. In addition to straight time billing, discounted bills, flat fee bills, monthly retainer bills and contingency fee bills may be prepared.[35] This program is available for $1,500.[36]

Actual demonstrations of this type of software seem to be impossible to obtain unless one is an attorney with his own office, a serious buyer with whom the vendors are willing to spend some time, and from whom they will not fear unauthorized duplication. The above systems may not be quite as sophisticated as those used by larger firms, but they possess all of the same basics.[38]

IV. Attorney Personal Finances

A principle use which has provided an impetus for the introduction of computers into the home is financial management software. From their simplistic origins as checkbook balancers, these programs have evolved into detailed financial accounting systems which allow an individual to closely scrutinize changes in his or her assets. The time which is required to enter and maintain financial data is often no more than the time already used to enter notations in a checkbook register. An attorney often has a very limited time to devote to supervision of his own assets, therefore, use of personal finance software should be considered for use by any lawyer who is thinking of purchasing a small computer. In addition, as the following example illustrates, some of this software is sufficient for business bookkeeping by a sole practitioner who is on the cash basis, and does not have any need for expensive, detailed law office accounting software.

An example of such a program is the "Personal Finance Master" by Spectrum Software of Sunnyvale, California.[39] Initially, the user defines up to seven asset and/or liability accounts for which he or she maintains records. As an illustration a list of typical accounts that a sole practitioner might have, include: 1) the regular business checking account, 2) the trust account for client funds, 3) a savings account for idle excess funds, 4) a liability account for a bank loan taken out in order to start the practice, and 5) a liability account for an American Express card which could be used for travel and entertainment expenses. Next, the program requires the entry of "standard names" and "standard purposes." The standard names are all those individuals or businesses with which the attorney regularly transacts business. Each is assigned a number, so that in the future that number can be entered, and the full name of the entity will no longer have to be typed. In addition, the address of each entity can be entered. (This allows the user to print checks that can be slipped into "view-thru" envelopes, and thus, they are ready to mail.) The standard purposes serve as budget categories, and should be defined in ways that facilitate searching for deductible transactions at year's end.

After this somewhat time consuming set-up process is completed, the attorney will be able to save a great deal of time in managing his finances, tax preparation and monitoring the financial health of his practice. After all transactions are entered into the computer, time is saved by the numerical coding, and by using the program to print checks and automatically reconcile accounts.

Budgeting is easily accomplished. The desired spending limits for each standard purpose, or budget category, are entered into the budget module. The program compares the desired spending limits with actual expenditures and computes the variance; making monitoring of expenses as simple as glancing across these columns. In addition, the budget report lists the cash flow for the reporting period at the bottom of the first column, and the total actual and budgeted expenses are also given.

Perhaps the greatest part of this program is the search feature which makes assembly of figures for tax return preparation a breeze. The attorney can prepare these search reports for all of his or her tax data in a short time; with all the figures available, a return can be expediently prepared.

Finally, the track record of the performance of the business may be judged by periodic preparation of a net worth report. It only requires about five minutes to prepare the report, and the information it provides is critical to financial survival.

Of course, this same program can be used for personal finances, if the attorney requires a more sophisticated accounting system for business purposes. Separate diskettes can also be maintained for business and personal accounts. Finally, the program might also be adapted to handle simple trust accounting.

V. Tax Planning and Preparation

The most specialized software available which is useful in the practice of a particular area of the law are programs which aid in tax planning and preparation.[40] The use of computer applications in this field is becoming almost mandatory: "The day of the green eye-shade ended long ago; the demise of the pencil, columnar pad, yellow legal pad, and even tax libraries in book form, is now at hand. Computers, large and small, have arrived and taken their place as *the* tool of the tax professional."[41] [Emphasis in original.] The arrival of personal computers in the late 1970's has started a continuing trend towards computer use by smaller law and C.P.A. practices.[42]

While there are very general mathematical and data base programs which can be used in a tax practice, such as "VisiCalc"[43] (an electronic columnar pad) and "DB master"[44] (which can organize textual information), it would be easier for the attorney who does not have a lot of spare time to use dedicated tax planning programs which are on the market for small computers; including the Apple II.[45] In fact, the Apple Computer Company itself has had a program called the "Tax Planner" on the market since 1981, but unfortunately, it has not been updated since the 1982 tax act (ERTA).[46] Apple's program is also much more simplistic than other programs that are on the market, such as "Individual Tax Plan" by Aardvark Software, Inc..[47] The Aardvark program automatically calculates many figures which must be entered by hand on the Apple program, but of course, it is also more expensive and difficult to learn.[48]

For a more detailed examination of tax software for the Apple II, a copy of the "Tax Preparer" by HowardSoft[49] was borrowed, so that it could be included in this article. The Tax Preparer is simple to use because the data is entered on facsimile IRS forms which appear on the screen. Math is performed by the computer, which fills in all related blanks once the basic data on income or expenses has been entered. It is a very comprehensive system which handles 22 forms and schedules. Figures which are entered on one form are transferred to any other relevant form without any need for user input. In addition, the Tax Preparer is the only one of these programs which actulally prints forms that are acceptable to the IRS (the IRS does require that their own 1040 form be filed, but the program is designed to print on a real 1040 form). Tax *planning* is a bit more tedious with this system, since only one portion of a particular form can be seen at a time; software that is used only for tax planning will have all the alternative figures on the screen with a minimum of text. The only practical way to plan with the Tax Preparer is to actually prepare an alternative return and print the result. While this is time consuming, it is also more comprehensive.

Unfortunately, this software had a few serious bugs ... this despite HowardSoft's advertising that the computations are error-free because it is "tested all year by tax professionals."[50]

In sum, although some of the software for tax planning is very good, the user must be very careful to check the work done by the computer until he or she is satisfied that the software is free of errors. Apple Computer's program is very good, and it comes with a statement by Coopers, Lybrand who ran an independent audit of the program's accuracy. It should also be noted that the Tax Preparer may have been cured of its problems in later versions after complaints were received. Careful review of a program prior to purchase, however, seems to be the wisest procedure.

"Computers, large and small, have arrived and taken their place as *the* tool of the tax professional."

VI. Estate Planning

Estate planning, when properly practiced, is one of the most difficult areas of the law. It involves the balancing of a vast number of variables within an intricate maze of federal and state estate tax codes, and the myriad legal issues that arise in the law of wills, trusts and probate.[51] It is not surprising that one of the first applications of computers to the law, other than word processing, was in the area of calculation of the tax consequences of various alternative estate schemes. As early as 1973, before minicomputers became affordable, a company called "COAP Systems" began offering a batch processing service for professionals in the field of estate planning.[52] An attorney would obtain forms from COAP and enter the required client data. The forms were then sent to Long Island for processing, and returned to the attorney with a detailed report of the tax consequences of various alternatives, including such typical variables as the tax effect of the order of death of each spouse. The order of death can greatly change the total tax obligation of the estate. Word processing also gained entry into the law office, in part, as an aid in the preparation of the lengthy, complex and repetitive documents involved in the field of wills and trusts. Finally, computers were even applied in the client interviewing process; the initial step in formulating an estate plan is a lengthy and comprehensive client interview. Programs were developed which performed an interactive interview with the client.[53] This reduced the danger of missing an important fact in the long checklist of necessary questions, and better ensured a complete asset inventory.

The ability to quickly take an asset inventory and show a potential client the monetary benefits of planning can be an important selling point for the practitioner: "[T]he result of this step is to furnish the client with an analysis of what will happen if he dies now. This computation, because it is stated in dollars is the 'door opener' in many cases to illustrate the importance of estate planning; often simple alternatives may be used to demonstrate the advantage of even the most basic estate planning."[54] The task of the estate planner is to demonstrate that much of the client's property would be lost in taxes under the present plan (or lack thereof). Next, the beneficial results of various alternatives, such as a lifetime giving plan, inter-vivos trusts or increased use of the marital or charitable deductions is discussed; and there is perhaps no better way to demonstrate the advantage of planning than in hard figures in black and white.[55] Computers are well suited to the complex calculations which are required.

"Computers are well suited to the complex calculations which are required [in estate planning]."

Until recently, only the large law firms and CPA firms had access to the necessary data processing facilities, and the majority of the programs available were designed by and for accountants.[56] The cost of timesharing or batch processing ran up to $200 for each analysis.[57] The advent of cheap microcomputers, however, sparked the interest of practitioners who were tired of slaving over calculators for hours. Some adventuresome attorneys, such as Albert L. Moses of South Carolina, purchased these computers before software was available for estate planning, and despite a lack of any training in programming, were able to produce useful estate tax projection programs with a few days of hard work.[58] Mr. Moses's program functioned by querying the user about the client's estate, family and intentions for distribution of property. Once the data was inputed, the computer would calculate the estate taxes due under several alternative scenarios.[59]

In 1978, then Harvard Business School student Daniel Bricklin invented the best selling program for personal computers: "VisiCalc" (for visible calculator).[60] This flexible program operates like an accountant's spreadsheet in that rows and columns of labeled figures may be organized in order to calculate complex numbers. VisiCalc, however, allows the user to define interrelationships between different numbers by using an algebraic formula; therefore, when one number is changed all the others are automatically recalculated in seconds. This program is user friendly and adaptable to any problem involving numbers, such as estate planning. It is adept at answering, in an instant, so-called "what if" questions, including those involved in estate planning. For a simple example, all of the client's assets could be added, in a VisiCalc program, to total the size of the estate. The total would be calculated by a formula at the bottom of a column of numbers representing the value of each asset: "x+y+z". Therefore, when the value of one of the assets is reduced, the total is instantly recalculated, so that the question "what" would the size of the taxable estate be "if" excludable lifetime gifts were made, can be answered instantly. If you add on formulas for calculating the tax due on the gross estate, the reduction in taxes that such a hypothetical would make possible may then be revealed at the stroke of a key.

Setting up a VisiCalc template for estate planning is not as easy as the above might make it seem. However, anyone intelligent enough to be an attorney should be able to set up a "program". VisiCalc is adaptable to estate planning by anyone who is inclined to spend the time; but for others, there is estate planning software coming on the market for personal computers. Aardvark Software[61] has recently released an estate tax program, in addition to their income tax program. And as a further alternative, the Warren, Gorham & Lamont publishing company sells a Texas Instruments calculator (which hooks up to an adding machine printer) that calculates estate taxes.[62] Any of these alternatives must be considered by an attorney who practices in this difficult field which involves so much "number crunching."

VII. Data Base Programs for Filing and Forms

Some of the most widely utilized types of programs for personal computers are the many varieties of data base programs. This kind of software is to verbiage, what VisiCalc is to numbers. They are completely flexible, allowing application of their organizational power and speed to many different problems. In fact, an innovative attorney could handle any necessary filing or recordkeeping chore with one of these systems, as thoroughly as a minicomputer with its own specialized law office software.[63]

A program named "VisiDex"[64] which was developed by the makers of VisiCalc will be used as an example of the application of data base programs to law office management. The examples will demonstrate that a sole practitioner with his or her own Apple and VisiDex can equal and surpass the computing power that a firm using a minicomputer has enjoyed in the not too distant past.[65] For comparison, a description of the functions that a Burroughs minicomputer served in a small firm has been drawn from an article entitled "Chaos or Computer" by the managing partner of a Philadelphia law firm, Bernard Sacks.[66] All the benefits of the use of a computer which are described in that article can be obtained from a data base program for a personal computer.

VisiDex works by allowing the user to design forms for handling information. At the same time that data is written on these computer generated forms, the attorney can define "keywords" which serve as an index for retrieval of the forms from the diskette upon which they are stored. In practice this is very similar to the way that a data base like "Westlaw" or "Lexis" is searched, except that retrieval is many times faster because only the list of keywords need be searched and not the entire text. An especially desirable feature of VisiDex, however, is that in addition to keyword search, the program will search for words that were not made a keyword.

The keywords give a clue to the usefulness of keeping file records on a computer. By asking the program to search for any keyword or combination of keywords, the information may not only be readily accessed, but can be manipulated in accordance with a particular need. For example, if an attorney with a data base comprising all matters handled over a period of years had a new client for which a speedy trial defense was a possibility, a brief search of the computer under the keyword "speedy trial" would yield all other cases that the office had handled which involved speedy trial. The actual paper case files could then be located for any useful briefs, etc. Add to this the possibility that the paper files could also contain a diskette upon which all the briefs and other papers had been saved during word processing, making it possible to edit and update an old brief rather than

start from scratch, thereby saving vast amounts of time. Keyword searches also enable an attorney to find a client file quickly, if the client calls and the lawyer needs something to refresh his memory about the case.

The second illustration of this program is a timekeeping and billing form. This is a fairly flexible template for recording billing information for a particular case. Any client's time sheet can be called-up instantly, and new work or expenses can be recorded with the stroke of a few keys. An especially useful feature is that a quality printout of the updated time sheet can be produced. If an attorney kept all his records updated in this way, at the end of each month a current sheet could be produced for each client and included as part of a bill with no extra office work involved. (In addition, the case management forms previously discussed may be used to print a mailing list of clients and even labels for envelopes for the bills.)

VisiDex is also able to convert text files that were created by the word processing software into a data base. By making this conversion, anything that has been typed in the office may be found by searching for words contained within that particular document. That is exactly how the on-line legal research data bases function.

Finally, by adding a clock/calendar to one of the empty slots in the Apple, the computer can replace the attorney's desk calendar. VisiDex has a special calendar feature that provides advance warning of important dates. This is superb for providing advance notice of court dates, statutes of limitations and any crucial date. The way that this feature works is wonderful for the absent minded. The attorney could for instance load the calendar for January 30, and write a notation that flashes; such as "Last day to file complaint in the "Moore" case." Next, the computer is instructed to give 10 days advance notice of this time limit. As a result, when the lawyer turns on the Apple on January 20, and everyday thereafter until the 30th, his warning to file the complaint is the first thing that appears ... and flashing obnoxiously at that.

In sum, the uses of these programs are myriad, and only the user's imagination and needs limit them. The system for the larger firm is only better because it can handle a number of attorneys, but in variety of uses it is more limited. In fact, the Burroughs system discussed above only served the two purposes of case file management and billing information that VisiDex is also capable of serving. Obviously, it would not be intelligent to use personal computers in this fashion in a large firm. Chaos would result with all the attorneys maintaining their own filing system. But for the sole practitioner something like VisiDex would be the ideal.

VIII. On-Line Data Bases

It only need briefly be mentioned that the addition of a modem to an Apple Computer allows it to be used as a terminal to access a large number of timesharing computers. Three services in particular are of interest to attorneys: 1) Westlaw, 2) The Source, and 3) Dow Jones News and Quotes.

Yes, Westlaw has finally released software which allows an Apple II computer to be used to access their legal research service. For any lawyer who can meet the burden of approximately $400 in monthly fees, this is an incredible service.[68] Some of the cost is offset by the possibility of dropping many items that the attorney might have included in his office library. It may even be possible to totally rely on the data base; after all, it is much more up to date than any small office library could hope to be, and case law is generally found in less time.

The Source[69] is a huge and varied data base that has one particularly interesting feature for any tax lawyer. An extensive number of tax programs can be used on a timesharing basis for around $20 during business hours. There are also magazines such as "Taxes" and "Practical Accountant" which may be accessed.

Finally, many attorneys serve as a trustee, and staying up to date with investments can be extremely time consuming. Portfolio management software, however, is available which will automatically fetch current quotes on stocks, bonds and commodities from the Dow Jones Data Base.[70] Figures on total yield, current value and gains and losses are calculated. The trustee need only be certain to update the information regularly, and keep a close eye on any changes in performance. When thinking of changing an investment, the computer can access estimates of a corporation's future earnings, copies of filings with the SEC or look for articles in the Wall Street Journal.

Conclusion

The march of computer technology will inevitably overtake the legal profession, and forever change the way the law office functions. Large, well capitalized firms were able to adopt the efficiencies of data and word processing to the practice of law at a much ealier point than possible for other, less fortunate attorneys. This article has tried to demonstrate that the time is already here for even the smallest practice to adopt these changes, since the cost of hardware has fallen low enough, and software is presently on the market which makes computers worthwhile for lawyers. If law can be practiced more carefully and efficiently by utilization of presently available and reasonably affordable computers, then it is incumbent upon the profession to welcome the change with open arms because it is the client who will benefit, and it is the client to whom the lawyer owes a duty of responsible representation.

The profession may finally solve a serious problem: "[T]he fact is that the average lawyer exercises none of his talents when it comes to administering his own office. To the contrary, he still clings to the inefficient one-man, one-girl system. . .; keeps time records, if at all, by diary; operates his entire accounting system on the stubs of his checkbook; fails to maintain a standard billing procedure, and has no method for statistical analysis of case load, costs and other financial data."[71] Even the lowly Apple computer, as the above chapters demonstrate, make the above tasks painless.

Notes

1. *See, e.g.*, Hoffman, *Computers and the Small Law Office*, 33 Bull. L. Sci. & Tech. 1, (1981).
2. H. Landsburg, *Planning for Computers: Evaluating Data Processing Needs for Medium and Large Law Firms* at 15 (1981).
3. Lawyers Weekly, *The Attorneys' Guide to Office Systems*, at 3 (Fall 1982).
4. Landsburg at 15.
5. See the collection of articles in the Lawyers weekly issue cited *supra* at n.3.
6. Advertisements for computer mail order companies may be found in any of the many small computer magazines which are now available on newstands.
7. Robert P. Bigelow is the editor of *Computers and the Law: An Introductory Handbook*, (3rd Ed. 1981).

8. Block, *Computerized Word Processing in the Small Law Office*, 13 Law Off. Econ. & Mgmt. Man. 407 (1973).
9. Pellinger, *Word Processing - Thoughts Learned Along the Way*. 19 Law Off. Econ. & Mgmt. Man. 10 (1978).
10. *See generally*, Lutus, *Apple Writer II Operating Manual*, Apple Computer Inc. (1981).
11. *Id.* at 43-45.
12. Eustace, *Practice Tips from a Solo Lawyer*, 1 Law Off. Econ. & Mgmt. Man. § 1.0, Art. A (1980).
13. *Id.*
14. Gerhart, *The Art of Billing Clients*, 1 Law Off. Econ. & Mgmt. Man. § 25.0, Art. B at 19 (Revsd. 1981).
15. An example is the "Lawdex" form system, samples of which appear in: *Record Keeping for the Small Law Office*, 1 Law Off. Econ. & Mgmt. Man. § 22.0, Art. B. at 2, 3 (1978); *See, generally*, K. Strong, *Retrieval Systems for Lawyers*, American Bar Association (1980).
16. The Law Office Economics & Management Manual contains an entire section devoted to a description of available computer systems for law office management. *See, also, Datapro Directory of Microcomputer Software,* Datapro Research Corp. (1981).
17. Charles Mann & Associates, Yucca Valley, California.
18. Compu-Law, Inc., Riverside, California.
19. *Datapro Directory* at ms 36-950-101.
20. *Id.*
21. *Id.*
22. *Computer Directory*, Law Off. Econ. & Mgmt. Man. at 25 (1982).
23. *Id.*
24. *Id.*
25. A "CPM card" is an expensive peripheral, however, and may cost anywhere from $300 to $400.
26. *Computers Survey Update*, 23 Law Off. Econ. & Mgmt. Man. at 109 (1982).
27. *Id.* at 113.
28. Information available from Micro craft, Inc., 2007 Whitesburg Drive, Suite F, Huntsville, Alabama.
29. *Supra*, n.26.
30. *Id.*
31. *Id.* at 113.
32. *Id.* at 114.
33. *Supra*, n.28 [Brochure obtained from Micro craft].
34. *Id.*
35. *Id.*
36. *Id.*
37. Legal Accounting & Management Systems, 1830 West Olympic Blvd., Los Angeles, California.
38. The major difference is that systems for larger firms have the ability to maintain files for large numbers of attorneys, and provide such reports as attorney productivity and profitability.

"[T]he fact is that the average lawyer exercises none of his talents when it comes to administering his own office."

39. Spectrum Software, 690 W. Fremont Ave., Sunnyvale, California.
40. Kovach, *Application of Computer-Assisted Analysis to Taxation*, 15 Akron L. R. 713 (1982).
41. Morson and Knepper, *How Computers are being used in Tax Practice Today and will be in the Future*, 56 J. Tax'n 46 (1982).
42. *Id.* at 47.
43. VisiCorp, 2895 Zanker Rd., San Jose, California.
44. Stoneware, Inc., 50 Belvedere St., San Rafael, California.
45. A useful source for a list of available tax software appears in an article entitled, "Wide Range of Tax Return Software can be used with most types of Computers," by W. Harrison and R. Nelson, 53 J. Tax'n 292 (1980); More companies enter this market all the time. One recent entry is "E-Z Tax", 2444 Moorpark, San Jose, California. This program prepares tax returns, and is the least expensive on the market at $69.95.
46. No mention is made in the Tax Planner manual about the possible issuance of updates, and none is on the market at this time.
47. Aardvark Software Inc., Canton, Ohio.
48. *Sophisticated Tax Planning Capabilities are expanded by new Computer Software*, 55 J. Tax'n 250 (1981).
49. Howard Software Services, 8008 Girard Ave., Suite 310, La Jolla, California.
50. From an advertising brochure circulated by Howardsoft.
51. *See*, Bigelow, *The Use of Computers in the Law*, 24 Hastings L. J. 707, 722, 723 (1973).
52. *Id.*
53. *Id.*
54. Davis and Strobel, *Estate Planning by Computer*, 53 J. Tax'n 378 (1980).
55. *Id.* at 379
56. *See, generally*, Bigelow, Ed. *Computers and the Law: Computers and Estate Planning*, at 70 (3rd Ed. 1981).
57. Davis and Strobel, *Supra* n.54 at 379.
58. Moses, *Savings in Practitioner's time through use of Microcomputer*, 7 Est. Plan. 220 (1980).
59. *Id.*
60. Golden, *Other Maestros of the Micro*, Time Magazine, Vol. 121 No. 1 at 28 (Jan. 3, 1983).
61. Aardvark Software, Inc., Canton, Ohio.
62. Brochure from Warren, Gorham & Lamont, Inc., 210 South St., Boston, Massachusetts.
63. One company, Data Based Solutions of San Diego, sells a program which adapts one of these data base programs for use in a law office.
64. VisiCorp, 2895 Zanker Rd., San Jose, California.
65. *See, generally*, Sacks, *Chaos or Computer*, 14 Law Off. Econ. & Mgmt. Man. 10 (1973); compare to the examples to follow.
66. *Id.*
67. *Id.*
68. The West Publishing Company presently charges $100 a month as a subscription fee, and requires a minimum usage of 3 hours a month at approximately $100 per hour in connection time charges.
69. Source Telecomputing Corp., 1616 Anderson Rd., McLean, Virginia.
70. Dow Jones News/Retrieval, P.O. Box 300, Princeton, New Jersey.
71. Sacks, *Supra*, n.65 at 10.

The New Necessity: Computer-Assisted Instruction In The Law School

by Linda J. Argenti

Few changes have occurred in legal education since the introduction of the "case method" at Harvard Law School at the turn of the century. Ehrlich, *Computers and Legal Education* 14 Jurimetrics Journal 158, 159 (1975). Since that time, the study of judicial appellate decisions has gone virtually unquestioned. The increasing number of law students and the growing need for clinical study, however, has challenged the thinking of legal scholars concerning the rigidity of current methods. Although first year instruction does provide law students with some background in research and legal writing skills, virtually nothing is offered beyond that, to provide the much needed skills a beginning lawyer will need. Little opportunity is provided for specialization during the basic three year program and only a handful of students are able to participate in clinical studies. Law professors are aware of "law students' increasing boredom and failure to prepare for classes". Fugal, "Computer Aided Instruction (CAI) in Law at J. Reuben Clark Law School" p. 2 (1980).

Changes in legal education have occurred on a small scale. Joint degree programs, research projects, and the use of Lexis and Westlaw for legal research are all available to some limited extent at most law schools. Also, externships, in which students spend as much as six months away from school working in one of a series of selected positions, may exist for the fortunate few. But none of these innovations is likely to affect the majority of students seeking a legal degree. Computer-Assisted Instruction or CAI is the first significant addition to law school which could, without destroying the current case method system, revolutionize the means by which students become lawyers.

CAI in legal education is the use of a computer based exercise or lesson on some aspect of the law which can be used by an individual student. In general, information is displayed on a computer screen. Students respond to questions by typing on a standard keyboard. The screen in most cases displays sixty-four characters across and thirty-two down. Thus, graphs, scenes or text can be displayed and in some cases, "an automated color microfiche projector is built into the terminal and a random access audio unit can be added to give an additional dimension of sight and sound". Maggs and Morgan, "Computer-Based Legal Education at the University of Illinois: *A Report of Two Years' Experience*", 27 J. Legal Educ. 138, 138 (1975).

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CAI is not entirely a new concept. It was used by the Navy in the early 1970's to reduce student training time, save salary and help students prepare for comprehensive examinations. (CAI students scored higher than conventional ones.) *Fugal* at 2. It has also been used in medical and business schools. Havard Medical School has been employing CAI for several years. Nor is CAI new to law schools. Since the early 1970's, several law schools have been slowly developing CAI programs and their research has produced varied approaches to the use and distribution of computer-based lessons. Before discussing the programs currently in progress, however, it is important to demonstrate the need for such a program in the framework of a legal education.

Maggs and Morgan, in their article discussing CAI at the University of Illinois, describe what a law professor does and how CAI can supplement these tasks. The law professor communicates information to students regarding rules of law, procedural use of legal materials, and some historical facts. In addition, the professor helps them to develop legal reasoning skills. Maggs and Morgan, *supra,* at 139. Unfortunately, the student-teacher ratio in most law classes prevents students from actively participating about ninety-nine percent of the time. Lengthy library research assignments are impractical given the limits of library resources and time constraints.

CAI instruction, in this case on a PLATO system in Illinois, can "provide review and drill in applying particular concepts to changing fact situations." Maggs and Morgan, *supra,* at 141. It also places students in an active learning role. A student must be alert and must participate by answering questions. Maggs, "Tube-Watching in Law School", Trial, 32 (December 1976). Here is an example of a typical question:

"A personal injury trial is in progress and plaintiff's lawyer is continuing his direct examination of the plaintiff:

(Computer:)	Q. Did you have any conversation with defendant after the accident? A. Yes Q. What did he say? OBJECTION! Witness would have answered: He said, "I'm sorry they must have fixed that red light since I last came through here." Please rule on this objection.
(Student:)	Overruled.
(Computer:)	Why isn't this heresay?
(Student:)	It is a declaration against interest.
(Computer:)	(Explains why this is not a declaration against interest and asks student for another answer.)
(Student:)	Admission of a party opponent.
(Computer:)	Right! (Explains why this falls under the exception for admission.)"

Maggs, *supra*, at 33.

CAI also provides immediate feedback. Lessons can be structured in complex pathways and branchings so that the materials are highly individualized. Students can learn the materials at their own pace. The Computer allows the student to omit discussion of a particular subject or go back to review certain questions, thus eliminating unintentional repetition. Henn and Platt, "Computer Assisted Law Instruction; Clinical Education Bionic Sibling," 28 Journal of Legal Education 424 (1977).

Besides the advantages of individualized instruction and instant feedback, CAI may also provide valuable role-play simulations, where, for example, a student may read questions asked of a witness at trial and may respond as an opposing attorney in a given situation. Ideally, such skills are best learned through personal interaction; but law professors have neither the time nor in some instances the background to supply such experiences. "Simulation is the feasible altenative". *Id* . at 428.

At the University of Illinois, CAI instruction has been operating since 1972 under the PLATO IV system whereby students interact with a "remote terminal consisting of a keyboard and a plasma panel display screen". *Id* at 424. In 1976, the system included a one thousand terminal network and four thousand hours of instructional material had been prepared. The distinctive feature of PLATO is its "curriculum control feature" which allows an instructor to send a student through an individualized sequence of lessons based upon his performance on earlier lessons. The order of lessons can be hand tailored. *Id.* at 424. While those at the University of Illinois foresaw the possible future uses of CAI such as role playing and even perhaps the administering of examinations by computer, they found that it was difficult to solicit faculty support and involvement in lesson preparation. They realized that support staff of both a professional and student nature would be desireable in the future. *Id.* at 429.

Another law institution currently using CAI is the University of Minnesota. The network system utilized is called EDUNET, available by dial-up or by TELENET (non dial-up). They also offer a limited number of exercises on floppy discs operating only on micros that run UCSD PASCAL. Eventually, they anticipate full conversion to Terak and Apple II micro-computers. Under the auspices of Professor Roger Park, and Professor Russell Burris, the University of Minnesota is now providing service to several law schools around the country, including Boston University Law School.

"Computer-Assisted Instruction ... is the first significant addition to law school which could ... revolutionize the means by which students become lawyers."

Professors Park and Burris cite as advantages of CAI that computer exercises can be used to cover topics a teacher will not be covering in class. The computer, unlike the professor, has endless patience. It can also store student responses which the author can later use to revise lessons and exercises or questions too difficult or too easy. Park and Burris, "Computer Instruction in the Classroom", National Law Journal 20 (1982). Park and Burris expect that several thousand law students, lawyers and judges will use computer-based exercises in legal education courses in 1982.

In an interview held at Boston University Law School, Professor Park commented on the fact that many law schools are anxious to get started on a CAI program and would willingly do so if subsidized wholly or in part. Nonetheless, he also expressed concern that many professors feel intimidated by the idea of writing lessons for the computer or they simply may not have the time. Professor Park has been instrumental in assisting B.U. to use their equipment as efficiently as possible. B.U. presently has one Terak micro-computer. Most of their lessons have been purchased on floppy discs from Minnesota. Students work the lessons in teams of two's and three's and student surveys indicate they find it preferable to working alone. Working in teams stimulates discussion while still providing individualized instruction. This method easily allows for fifty hours of instruction time per week to students.

Harvard University Law School, until 1981, was using Minnesota's EDUNET system, as well as their floppy discs. Judge Keeton, formerly professor of law at Harvard, had helped write some of the Minnesota lessons, along with Roger Park; nevertheless, Harvard was anxious to be independent of the Minnesota experience. Then, Professor Donald Trautman discovered the "authoring system" at the University of Utah, which allows the production of computer-based lessons without the aid of a programmer. Professor Trautman attempted to enlist the aid of faculty to "author" lessons in law for use on the Terak computer system (of which Harvard Law School presently has five). But as Professor Park had discovered earlier, professors were skeptical of the program or preferred to use non-classroom time for their own research projects or articles. Professor Trautman thus conceived the idea of students producing computer-based lessons.

The fledgling organization known as HILIS (Harvard Individualized Legal Instruction Series) now claims to have thirty-five students working on a broad list of projects in various stages of completion. HILIS, which owes much of its success to Cole Brecheen, a second year law student presently in charge of the organization and who spent last summer

"Besides the advantages of individualized instruction and instant feedback, CAI may also provide valuable role-play simulations ..."

working on the development of this program, describes itself as a "not for profit Harvard Law School Student Publication. *Charter of the Harvard Individualized Legal Instruction Series*, p. 1. (1982). Its function is specifically to "publish computer programs". *Id.* The students work on a volunteer basis, much as they would for a literary publication and devote anywhere from ten to forty hours per week on their projects.

The purpose of the computer programs at present is seen by HILIS as supplemental to classroom instruction. The purpose of the organization itself is to "reduce the cost of lesson production and increase the volume of lesson production by relieving professors of the drudgery involved in writing, programming, testing, and publishing lessons". *Id.* As a by-product, students in HILIS have an opportunity to contribute something of value to their own education.

That first and second year students are actually producing lessons on law may seem paradoxical in light of the great need which Professors Park and Trautman have expressed for "properly written" lessons. But the concept in terms of possible expertise is not much different than Law Review. The students, in most cases, work on a narrow topic connected with a larger lesson. A student may be assigned, for example, to write one question in a lesson on hearsay. Also, each lesson is written under the supervision of a law professor and at its completion, must be submitted to the Dean's faculty committee on computers.

Before approval by the committee, the lesson may be used by students of a given class if the professor feels it would benefit the class. If no member of the faculty has examined it, it can be used on an experimental basis by certain staff members or volunteer students to evaluate the lessons.

Harvard's student authoring program is written in PASCAL, which does not require a programmer. The PASCAL system uses only the Terak 8510 desktop micro at the present time. Eventually, lessons will be made to run on three or four different kinds of equipment; most likely IBM, Xerox 820, and Apple II. Three of Harvard's five Teraks are used to run the computer lessons and two are used to produce them. Professor Trautman, in an interview at Harvard Law School, expressed Harvard's goal to be independent of any one computer or publisher. Harvard is gradually weaning itself from the Minnesota lessons, but next has to anticipate the selling of these programs to other schools, since there is already a demand for them. If the lessons are sold, the University of Utah would have royalty rights, since their authoring system is being used.

For the time being, these lessons are forbidden for use outside Harvard, except that they may be loaned to other law schools to share design techniques but not for instructional purposes. Approved lessons can be distributed for sale through Minnesota's clearinghouse for law school computer aided instruction material. *Id* at 4. The Faculty Committee must also approve distribution of lessons sold directly to other schools. It must be emphasized that there is no publicly announced production schedule, nor are there any subscribers. Clearly, however, Harvard Law School will soon be in an ideal position regarding CAI instruction. The students will have benefit of a rapidly expanding and well supervised series of instruction for computer use and the law school will be able to sell or loan lessons and materials to other schools.

The Harvard Program is attractive even to Professor Park who is currently learning the authoring technique from Cole Brecheen. HILIS is now an official student organization at Harvard and an editor-in-chief will be elected this year. Executive and managing editors will also be elected.

In seeking out candidates for these positions, Cole Brecheen, in a memo to students, expresses the spirit of HILIS. "What matters is your commitment to bringing legal education out of the dark ages". Brecheen, *Memorandum*, p.2 (April 4, 1982).

As of March, 1983, the Harvard program has succeeded in becoming completely independent. There are now over 60 students involved in writing lessons for CAI and the school is currently soliciting outside authors. The name of the organization has been changed from HILIS to HCLIP (Harvard Computer-Aided Legal Instruction Project). At least 8 professors are using the lessons in their law classes as assigned material. For example, one half of all first year law students taking Property are assigned to lessons in that area.

HCLIP has several lessons ready for publication and it is hoped that on April 29, 1983, this year's lessons will be packaged in a single volume and published. There is still some question as to whether lessons shall be sold individually or in volumes. The proposed cost for the lessons will be between $30 and $60. If the lessons are sold in volumes, the proposed cost will be between $150 and $200 per volume.

Thus far, we have alluded only briefly to the operational procedure of CAI. If you envision CAI as nothing more than a workbook on screen, think again. The structure for a "teaching machine" is complex and extremely flexible. The model for CAI programs originated with, ironically, a doctoral dissertation on electrical engineering, published in 1962 by MIT press, entitled *A Decision Structure for Teaching Machines*, by R. Smallwood. This early work has been influential in the building of lessons for the computer. Apparently, the easiest kind of question to prepare is the multiple choice question. This type of question, however, might not be as beneficial to a student as a "free form response". Our ultimate concern is not ease, but rather we wish to know how a particular lesson can best inform or test the student. Since technically a free form answer is not wholly possible because the computer doesn't understand the spoken word, Dr. Smallwood gives a third alternative by which the student compares his free form answer to a list of computer answers. If the student cannot find the exact answer, he chooses one closest to his from the list. Thus, the multiple choice technique is successfully combined with free-form responses.

"The computer, unlike the professor, . . . has endless patience."

"[I]t seems clear that students using CAI perform better on tests than those who have not."

Trautman, *Memorandum* (February 7, 1982).

While CAI lessons may vary as to methods used for presentation, they all share common elements. Ideally, each lesson has an aim or goal of what concepts will be conveyed and in what order the material should be presented. Beyond that, the lesson should seek to include Skinner's three conditions of effective learning: activity, feedback, and proper sequence. Harvard Law School, *Draft*, p. 6. The computer, because it is able to "mimic a private tutor", has distinct advantages over other modes of instruction.

The first condition, activity, is satisfied because the student, rather than passively sitting or listening, is writing and making choices. The second condition, feedback, is satisfied because the student immediately knows whether or not his response was correct. Feedback can indicate to a student if he is "on the right track". The computer tells the student not only if he is right or wrong, but also why his answer is correct or incorrect. As to the third condition, the author of the lesson can arrange materials into appropriate topics or blocks of knowledge.

In a memo to Harvard Faculty, the disadvantages of the large lecture when compared against these three conditions of learning are cited. Students are generally passive in the large lecture environment, except that they take notes; but the notetaking varies in completeness and accuracy from one student to another. Chances of misunderstanding certain aspects of the material are high. While it is true that the lecturer can easily satisfy the third condition by careful control of his presentations, there is virtually no testing or monitoring of this material throughout the year. "Once again, the method may leave some students caught up in a fast growing snowball of errors." *Id* at 9.

Students using CAI learn material at their own pace. Some lessons provide for a student to examine topics by order of choice. Or he can leave a certain topic and return to it later. A table of contents is displayed when the student hits a designated key on the keyboard. The computer keeps track of these topics and indicates which topics have been covered. If a student answers incorrectly, a message is displayed which will explain why the answer was inappropriate. In many lessons, more information is given and the student is urged to answer the question again.

Often at the beginning of a lesson, an assumption is made that the student is not familiar with the program and a special instruction unit precedes the lesson. The advanced student (one familiar with CAI) can omit this material by pressing a certain key. Henn and Platt, *Supra*, at 427. CAI also easily supplies quizzes and review drills for instant feedback. An example of such a drill as used is shown below. This is a University of Illinois PLATO lesson used at Cornell Law School for experimental purposes several years ago. The subject matter is a lesson in applying different statutory dividend formulations.

> "By using a random number generator, an individual problem can be generated for each student. Three different random numbers are used to determine the extent of the preferred share's unpaid dividend arrearages, the amount of unrealized appreciation and depreciation of the corporation's assets, and the total assets and liabilities of the corporation. To provide a personal touch, the corporation is named after whatever student is currently using the computer.
>
> Once the individualized financial data are displayed, the student is asked to enter the maximum dividend per share for the preferred and common shares. The student is not told immediately whether his answers are correct. Rather the student is given the freedom to move from jurisdiction to jurisdiction and answer the problem in any order. Assumptions for resolving statutory ambiguities are displayed. Pressing "HELP" will display a summary of the dividend rules for the jurisdiction. The "built-in" calculator is available to help students with their arithmetic.
>
> When the student has completed all of the questions, a table showing the student's answers and the computer's answers is displayed. The student can request an explanation of any answer. This explanation consists of a step by step numerical solution to the questions, as though an instructor were writing out the solution on a blackboard. The computer automatically alters the numbers in the model solutions to fit the data given in the student's individualized financial data."

Id. at 434.

Theoretically, in weighing the effective conditions of learning which, according to Skinner, are necessary, CAI has distinct advantages over most other forms of instruction (excepting private tutorial and actual experience.).

All of these hypotheses and suppositions are meaningless without examination of the response of the central figure in this learning exercise—the student. In early experimental use of CAI, students were closely monitored for their reactions to this type of instruction. An exercise in Tort Law used at Harvard by Judge (then Professor) Keeton in 1974, stressed that a secondary purpose of the exercises was "to explore the feasibility and usefulness of computerized aids to learning in relation to a discipline". Keeton, R., *Computer-Aided and Workbook Exercises*, at iii (1976). In other cases, students filled out questionaires, participated in surveys and were questioned at length about their views. For example, a written questionaire followed the dividend lesson discussed previously. The reaction was enthusiastic, with negative comments focusing only on terminal breakdowns and distractions in the computer room. Henn and Platt, *supra*, at 435.

Professors Park and Burris support the data that CAI has been "well-received by users". In data collected from over one thousand students, faculty, judges etc., they reported that 90% of the users felt the exercises were valuable learning tools and they especially appreciated the opportunity to review and test their knowledge. Park and Burris, *supra*, at 22. They also noted that

98% of the users enjoyed doing the exercises.

A more objective standard of evaluation is one based on the achievements of those students who used the exercises. Because of the difficulty of accurately evaluating the effectiveness of the computer in comparison to other kinds of instruction, the results are varied and ambiguous to some degree. At Harvard, after reviewing all available literature on evaluations, proponents of CAI admit that "no absolutely firm conclusions can be drawn upon the basis of this preliminary investigation". *Draft*, at 23. The reason for lack of empirical data is that not all of the evaluation relates specifically to law instruction; in fact, very little relates to legal education per se. (Much of the research has been done in accounting and mathematics.) Also, different learning theories have been used and comparisons may be misleading. Neither teachers nor students may be of equal abilities in all cases either. Nonetheless, it seems clear that students using CAI perform better on tests than those who have not. Also, no study has thusfar shown that students using CAI perform worse than those using conventional instruction. The Harvard *Draft*, therefore, presents a modest but guarded affirmation of CAI by concluding that "the present state of empirical research certainly does not compel proponents of computer-aided instruction to give their theoretically based enthusiasm for it, and some aspects of the existing research can be construed as extremely encouraging". *Draft* at 27.

Those unfamiliar with CAI may view it suspiciously either as an unaffordable novelty or as a potential threat to the Socratic Method. Most CAI advocates see it as a reasonable adjunct to the conventional methods of legal education with astounding possibilities for the future. The reason for their optimism lies with the knowledge that clearly the experimental stage in CAI is already past in many law schools.

One criticism, for example, has been that computers are dehumanizing. Users of CAI do not at all agree. It is also possible for the computer to communicate, to some extent, the personality of the author of the lesson. In other cases, "the computer can be programmed to be infinitely patient with the learner ... but if the teacher felt it would be in the learner's best interest to enjoy less patience, the computer can be programmed to make insulting remarks, to use condescending remarks and turn off. Personality determination could be left up to the user. By pushing special control buttons the learner could request the patient version, the angry version or the humorous version of any instructional presentation." Fugal, *supra*, at 11.

"It will not ... make the law professor obsolete."

Another criticism to be overcome is that CAI is expensive. While some studies show that eventually, the cost of instruction using CAI could actually be less than that of conventional instruction, the initial expenses are high. For example, the cost of using the exercises on EDUNET during 1981 and 1982 are $18.25 per hour. A large percentage of that figure is used for network communications; however, the use of the micro-computer will bring down these costs. "Efforts are now being made to convert the present exercises and develop new ones for the mail". Park and Burris, *supra*, at 22. This would eventually eliminate the need for network communications because exercises are already available on disks.

Other costs include the initial purchase of micro-computers (which can run from $5000 to $10,000) and the purchase of computer exercises on disks. The cost of purchasing an exercise from the University of Minnesota is $200, which includes five copies. After the initial cost, annual editions of the exercise can be purchased for $100.

While such expenses may seem alarming in light of current economic need to save money and cut expenses, when viewed in comparison to conventional legal instruction, and in terms of cost per hour, they are at least competitive with the other kinds of legal instruction. But since computers are at this point not expected to replace traditional legal education, the overall effects on the school budget may not be as devastating as they first seem. Maggs, *supra*, at 35.

It should be emphasized that CAI is not a threat to law professors. It can serve then in eliminating from their curriculum course materials that can more easily be presented in a concrete fashion. It can be used as a tutorial program or as an orientation to a course. It can be used to provide a substitute for clinical study. "It will not, however, make the law professor obsolete". Maggs and Morgan, *supra*, at 155.

The realization that law schools across the country are in various stages of developmental use of CAI is a testimony to its growth since the early seventies. Many law schools both in the United States and Canada are currently planning authoring programs or are using the Minnesota network system.

In our own area, two Boston law schools, B.U. and Harvard, are currently implementing CAI in their law programs. (As of March, 1983, New England School of Law also has a CAI program. It is called Computer Programmed Learning. Currently, students are using the lessons on a completely voluntary basis. New England is using three Apple computer terminals with floppy discs purchased from the University of Minnesota (which now runs a non-profit organization for the distribution of the discs). New England anticipates expansion of the program and hopes to use the lessons for non-legal subjects, such as English grammar, as well.). The trend seems to be to establish an independent system rather than to rely on a network system. The student authoring program satisfies many of these goals of independence and many of the criticisms of expense. A second year law student at Boston University is currently in charge of developing a student authoring program using Harvard as a model, and Professor Park himself has shown a desire to implement this system and has commented on its advantages; first, it relieves faculty of the pressure of writing lessons, second, it

provides for an independent inexpensive collection of lessons which the law school need not purchase from an outside source, and third, it gives students a new opportunity to contribute significantly to their own education.

Suffolk University Law School has in the past kept pace with whatever technological changes have arisen. The introduction of LEXIS at this University is but one example. If in the future, we hope to provide for the growth of our students and to better prepare them for their legal careers, it seems inevitable that CAI will one day be used. Suffolk should begin as soon as possible to explore ways to begin using a CAI program as part of its law school curriculum.

Also, the students themselves can provide one of the most important ingredients to launch this program—the writing of lessons to be used on a particular computer system. An authoring system, such as Harvard's, can be effectively developed in one summer. Also, schools like Harvard and Boston University are anxious to provide assistance to other law schools embarking on this program.

The possibilities and future uses of CAI in law schools are endless. Although there is still some skepticism concerning certain aspects of this kind of instruction, it has clearly already made inroads in legal education. It may very soon be an instructional necessity.

The WIPO Proposals: An International System for the Protection of Software

by Vivian J. Hsu

Introduction

With the increased growth and development of computer technology, both in this country and abroad, has also come the increased concern over greater protection for computer software. This concern has intensified with the emergence of foreign countries in an extremely competitive market and especially, with the growing reports of computer crime — particularly, the theft of software.

Since no one theory of the protection of intellectual property can adequately protect computer software from infringement, and because of the growing need for some sort of international protection, the United Nations called for a study to be conducted by the World Intellectual Property Organization (WIPO) and for the drafting of a system of minimal protection for computer software.[1] WIPO was asked to address itself to the growing economic and social need for the formation of a more uniform international policy towards protecting software. This paper discusses the WIPO proposals in the context of the prevailing theories of protection for software, reviews the critiques that have been written about the WIPO proposals, and also discusses the future of the Model Provisions.

Theories of Software Protection

Theories of protection for intellectual property have arisen primarily in response to the need to balance societal interests in the uninhibited dissemination of infomation and the economic interests of the proprietor/creator in the maintenance and control of the products of his investments in time, money and energy. The immediate need for software protection arises for five fundamental reasons:[2] (i) the investment made in the computer software industry is extensive in terms of not only money and time but also in energy. Much duplication of work can result from the lack of free dissemination of knowledge. Also, it is estimated that 70% of the total costs of computer systems are expenditures for software;[3] (ii) the need for such software protection is also evident for the encouragement of future endeavors in software development; (iii) protection represents an incentive to disclosure; (iv) protection will also promote greater trade amongst different countries; and (v) without protection, software is too vulnerable to infringement.

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The principles of software protection have, for the most part, evolved from three different theories for the protection of intellectual property: copyright, trade secret (doctrine of unfair competition) and patent theory. In applying these theories to the practical necessities and the unique nature of computer software, no single theory can adequately protect software. This has largely been a result of the fact that these different theories were not developed to incorporate the leaps and bounds of technological advancements. While patent and trade secret law serve equally as well as the law of copyright in certain situations, it has been said that copyright is the more effective legal device to protect computer software. The purpose of the WIPO conferences was to determine which one or combination thereof would be suitable for the development of an international framework of protection. Since the WIPO Provisions are fundamentally based on copyright ideas of protection, WIPO obviously believes that copyright principles strike the appropriate balance of the two aforementioned competing interests.[4]

The most appealing characteristic of patent protection lies in the statutory 17-year monopoly granted by Congress and guaranteed by the Constitution.[5] Nevertheless, patent law has been found to be a less than optimal method in protecting software. Much of this has resulted from the fact that the various requirements for patent protection do not mesh well with the very nature of software. To be patentable, an invention must meet the requirements of being "new and useful," novel and non-obvious to one skilled in the art.[6] First, however, the invention must fall within the statutory class of those that are patentable.[7] This has often been done by describing the software (or hardware, as the case might be) involved as a new machine (apparatus claim) or a new process (method claim).[8] Nevertheless, only an estimated 1% of programs are found to have a high enough level of inventiveness to satisfy the requirements of patent law.[9] The additional drawback of patent protection is the uncertainty as to its "degree and effectiveness."[10] Since the time period in which a patent remains only pending (about 3 years)[11] is relatively long for a rapidly changing industry, this time lapse seems to negate the impact of monopolistic benefits. Also, since the courts only uphold about 30% of patent cases, then patent infringement may occur anyway since the infringer knows that there is a 70% chance that his actions will not be found to be illegal.[12] In the past, the Supreme Court has been reluctant to accord patent protection to computer programs and has strictly interpreted patent law in doing so.[13] However, the Court has recently broadened its position on the patentability of computer inventions in construing the subject matter provisions of the law to be broader than before.[14] As a result of *Diamond v. Diehr*, 101 S.Ct. 1048 (1981), even where there is no chance of obtaining a patent on a computer program per se, the claim for the method to operate on a particular machine can be accorded protection by patent.

The use of trade secret protection is more widespread than that of patent protection. However, unlike patent law, trade secrecy is governed by state law and therefore there is great lack of uniformity in practice.[15] Thus, owners must rely on a case by case, jurisdiction by jurisdiction, determination as to the

degree of trade secret protection available to their software. The theoretical essence of trade secrecy, which is derived from the law of torts, points out the inherent weaknesses in the sort of protection it can accord to computer software. The Restatement of Torts defines a "trade secret" as consisting of "any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain advantage over competitors ... A trade secret is a process or device for continuous use in the operation of the business."[16] The rationale behind trade secret protection is that as long as the information remains a 'secret' (not in the public's realm of knowledge), then the business or individual should be accorded some protection to keep that secret (to keep the information from being disclosed to the public by unfair means) and to keep any existing competitive advantage.[17] Thus, taking its roots from the equitable theory of unfair competition, software may be granted trade secret protection as long as it *remains* a secret. Unfortunately, once the secret is disclosed, the protection is lost, even if that loss occurred in an inadvertent manner.[18] Even the disclosure of the secret by an unauthorized licensee or by the more honest means of "reverse engineering" (beginning with the product and working in reverse to determine the development process, the trade secret) will not preserve the secret.[19] Given the high risk involved in the loss of trade secret status and protection, it is actually ineffective for materials which are put into wide use in large markets. Since it hinges on secrecy, protection by the trade secret doctrine is, at best, tenuous. Because of this lesser degree of security, software proprietors may be extremely unwilling to seek this sort of protection, thereby frustrating the very purpose of software protection; that is, promoting the dissemination of software for the general growth and welfare of society.

The third type of protection for intellectual property is the statutory right of copyright. The WIPO system of software protection is based on general copyright principles, at least more so than on patent and trade secrecy. Although copyright protection was not designed with software in mind, and despite United States Congressional reluctance to accord software this type of protection,[20] the Computer Software Copyright Act of 1980 (1980 Act) was enacted on December 12, 1980 to accord copyright protection to certain computer software. Much of the debate surrounding this legislation focused on balancing the competing interests of a proprietor's right of control to his creative work and the public's interest in the ready availability of the information.[21] The author of one recent law review article suggests that the purported reason for explicitly rejecting copyright protection until 1980 (that it was premature) was merely propounded to mask the lack of expertise in dealing with the matter.[22] Whatever the reason for its reluctance to legislate in this area, Congress did evidence its concern over the lack of adequate software protection in its establishment of the (United States) National Commission on New Technological Uses of Copyrighted Works (CONTU) in 1974, which was authorized to study and recommend any necessary changes in existing copyright law so as to recognize the competing interests of the public and of the owners of works used in conjunction with computers. The 1980 Act was the culmination of CONTU's efforts and recommendations to the U.S. Congress.[23]

Since copyright proctection is only accorded to the expression of an idea and not to the idea itself,[24] protection for software under this rubric is limited to that software which represents a sufficient level of "intellectual labor", i.e. "sufficient authorship", which creates a separate identity for the program from that of the "underlying idea, process, or algorithm" (which is protected under trade secret or patent principles).[25] Although registration of a computer program with the Copyright Office is not required (and in fact, runs contrary to trade secret principles of public nondisclosure), registration is an advantage to the extent that relief will be afforded in the form of statutory damages for any copyright infringement that does occur.[26] The effectiveness of the protection accorded by the 1980 Act will not be fully determined until it is tested by the courts.

"While patent and trade secret law serve equally as well as the law of copyright in certain situations, it has been said that copyright is the more effective legal device to protect computer software."

Thus, software protection stems from three different theories of protection for intellectual property. Although it is apparent that better protection is derived from copyright principles, the best software protection, as some commentators suggest, would come from a unique blend of all three theories which can optimally suit the needs of each proprietor of computer technology.

The WIPO Provisions

The Model Provisions on the Protection of Computer Software were the result of the conferences held by the International Bureau of the World Intellectual Property Organization (WIPO). The scope of WIPO's work was defined by the Advisory Group of Non-Governmental Experts on the Protection of Computer Programs (the Advisory Group) in four meetings held between 1974 and 1977. Essentially, the study to be conducted by WIPO was to achieve the goal of "designing a system of minimal protection for computer software",[27] particularly one which could be implemented on an international level so as to create a certain degree of uniformity in the international law governing software protection.

The Advisory Group, in their first meeting in June of 1974, reviewed the types of protection that were available in several countries: Australia, Canada, France, the Federal Republic of Germany, Japan, the Netherlands, the Soviet Union, the United Kingdom and the United States. Copyright protection of software was found to be the most prevalent on the international level, with the theory of trade secrecy being used frequently and with patent protection

being denied in most countries.[28] Perhaps, this pre-existing prevalence of copyright protection accounts for the fact that the WIPO proposals were based on principles of copyright. Indeed, it was probably the most logical thing to do since it did represent the common thread of the thinking of many nations *and* as the most accepted mode of thought was probably forseen as the easiest to implement.

The Advisory Group established guiding directives for the International Bureau which included a feasibility study of modeling an international system of software protection on modified versions of "copyright" or "copyright-type" protection, patent protection, and also the tentative establishment of working definitions for the international computer sphere (e.g. defining the concept of a 'computer program').[29] The Advisory Group also indicated that an appropriate legal system of computer program protection should also "provide advantages to developing countries both as potential creators and as users of computer programs."[30] This point is very well made since an effective system of software protection which fosters increased production of software and the dissemination of that knowledge would, as a result, reduce economic costs (as well as the risk of infringement) in the exchange of information within the international network. This increased exchange will, in turn, promote an increase in business transactions and the development of new programs to the extent that all countries will be able to achieve a higher level of knowledge and advancement.

To date, there are two drafts of the Model Provisions, the first is much more detailed and creates an optional depository system for software (but, according to the comments of the second draft, are primarily to facilitate national systems of protection). The Model Provisions of the recent draft are structured into 9 different sections:[31]

*Section 1 defines the three elements of computer software; the underlying process or program description, the actual program itself and the supporting documentation and other material which is used to explain the program's operation. Section 1 also defines the term "proprietor."

*Section 2 determines and regulates who has ownership rights in the computer software. It addresses the specific rights of ownership at different times, especially where an employee has created the software. It also includes provisions for ownership rights in the computer software.

*Section 3 and 4 go to the requirements that protected software must be original and must be the expression of an idea or concept.

*Section 5 is designed to monitor the unauthorized disclosure and copying of software, and specifically addresses proprietor control and disclosure.

*Section 6 describes and defines infringement which is based upon the existence or lack of proprietor authorization.

*Section 7 establishes the 20-year duration of rights. Although rights of protection accrue upon the creation date of software, the term of protection commences upon the earlier of two happenings: the use of the software in a computer (beyond research and testing) or a commercial transaction which involves the software.

*Section 8 establishes the guideline that relief and remedies for infringement will be left to the courts.

*Section 9 emphasizes that the Model Provisions do not preclude protection by other doctrines used in protecting computer software.

Two points should be made here about the Model Provisions. First, they indicate that the WIPO drafters intended the provisions to supplement existing national policies of protection. This intent clearly accounts for the predominance of copyright principles in the provisions, specifically in Sections 3, 4, and 6 (effectively incorporating copyright notions of originality, the idea/expression of an idea dichotomy and the concept of unauthorized use as infringement). Notably, the adoption of Section 7, which establishes a 20-year period as the term of protection, looked to patent and copyright theories as a source. Whereas a patent is valid for only 17 years, copyright protection continues for 50 years beyond the author's life. One commentator suggests that the adoption of the 20-year term was made in view of the potentially long "commercial life" of some programs and the possibility of a renewal period with a high renewal fee.[32] This idea is a sound one in that limited protection may promote the growth and development of new ideas to replace old ones. It could, however, have the same effect that it had in the application of the patent theory—that 17 years is too short a monopolistic period to render public disclosure worthwhile.

Second, a reading of the Model Provisions makes apparent the drafters' rather broad frame of mind. For example, the provisions make use of broad-based terms such as "machine" instead of "computer", thereby including smaller programmable equipment such as calculators. Also, broader coverage against infringement is given in the proposals' protection of the program "description" and not solely the program itself. This broad-based approach was probably used so as to accomodate the variations of existing law governing copyright protection and to facilitate the implementations of the proposed provisions.

The general and broad-based focus has been the target of at least one critic who questions the probability that one system of protection can be devised to "accommodate the range of interests of the different actors in the global setting".[33] Perhaps the answer to this question lies in determining which is the lesser of two evils: no international system of protection whatsoever or one which must necessarily remain general in nature to accommodate all levels of economic and technological development. In view of the very purposes of the WIPO study, to create a protective system which would incite the dissemination of knowledge, I would think that the latter approach is the better answer. Needless to say, however, there are other critics who agree with this choice but believe that some other new system other than the WIPO system is preferable.

Other Proposed Systems for Program Protection

One critic of the existing schemes for software protection is most skeptical about the protection/production thesis which is the backbone of many of these schemes, and wonders whether protection really does motivate and encourage individual efforts in *development*.[34] Whereas this thesis may not promote additional efforts (there will always be those who create for the sake of satisfying their own interests), it will certainly lend some additional security to proprietors and encourage their *dissemination* of their findings. The aforementioned critic is most concerned about the balance which must be struck between technologically-advanced countries and lesser developed ones. In fact, his focus

"[A]n effective system of software protection which fosters increased production ... and dissemination ... would ... reduce economic costs ... in the exchange of information within the international network."

is on a system which will lend technical assistance and preferential treatment for the lesser developed countries,[35] and is based upon the 1968 IBM proposal which establishes a short term of protection (5-10 years), establishes a filing system with a registration office and limits protection to mere copying.[36]

Both the IBM proposal and another, the MITI proposal,[37] establish a system of registration and deposit for computer programs, based primarily on the existing U.S. Copyright System. These proposals also incorporate the deposit and publication mechanisms of the patent system.

As reported by WIPO, some proponents of the depository and registration system argue that such a mandatory system is only fair if the proprietor is receiving special software protection.[38] Perhaps the fear that few proprietors would be interested in such disclosure prompted WIPO to remove this deposit provision from the second draft of the WIPO provisions. More likely than not, however, it was the interest in creating an immediate solution, and one that was easily-implemented, that prompted this move. (Adoption of a deposit/registration scheme would create additional problems of administration.)[39] Another WIPO Report notes the suggestion that a voluntary, rather than a mandatory system of registration be adopted.[40] This suggestion raises questions as to its validity given the low degree of copyright registration that has been made by software proprietors. Such a voluntary registration would only be done for the purposes of disseminating the information, and not for any additional protective rights.

In addition to the above proposed scheme of deposit and registration, two other interesting software protection ideas have been advanced: a system patterned after the West German utility model (patent system), and a system of compulsory licensing which would flow from a central registry. The system of petty patents used in the Federal Republic of Germany provides for a "shortened and limited form of patent protection for inventions not rising to the high standards of formal patentability".[41] Under this model, then, the level of inventiveness which is required for an ordinary patent, is less, but the software must still meet the other patent tests including that of novelty. In addition, the utility model requires certain other provisions to be met, including unity of subject matter, concrete manifestation and statutory subject matter.[42]

The other system of protection mentioned is that of compulsory licensing of software. This would be based on the existing compulsory licensing system used in the United States for music, in particular, phonograph records. Under this system, the proprietor would be compelled to distribute his wares, but in return, would receive royalty payments from his users. While it has been said that this system could easily be incorporated into the WIPO provisions,[43] it is doubtful that it could be easily monitored so as to detect any and all infringements. Because of the track record of the music compulsory license system in detecting such infringements, it is unlikely that such a system would be very appealing to proprietors, at least enough to achieve the WIPO purpose of greater dissemination of knowledge.

Conclusion

Despite the criticism which has been given to the WIPO system of software protection, many others believe it has at least taken a giant step forward in narrowing the issues and defining the interests involved in an international scheme of software protection. While the provisions have been of a rather broad nature, they have been necessarily so in the current interests of implementing an international system which can be readily assimilated into existing national protective systems. What remains the unfortunate part of the WIPO history is that its proposed system has yet to be adopted on the level of an international treaty (such as the Berne and Universal Copyright Convention Treaties). Certainly, the fundamental concern of such a system has not diminished, but nonetheless, an acceptable system has yet to be developed. At the very least, the WIPO proposals have established the base upon which future international drafting boards will build.

Notes

1. Abel, "World-wide Protection of Computer Software: An Analysis of the WIPO Draft Proposal.", 2 New York Journal of International and Comparative Law 278, 294 (June 1981), *citing,* Report of the United Nations Secretary-General on the Application of Computer Technology for Development, U.N. Doc. E/4800 (1970) at § 202.
2. International Bureau of WIPO, "Model Provisions on the Protection of Computer Software", 11 Law and Computer Technology 247, 248-49 (1978).
3. *Id.*
4. *See* Abel, supra, at 293.
5. 35 U.S.C. § 101.
6. 35 U.S.C. § § 101, 102, 103.
7. 35 U.S.C. § 101.
8. *See, In Re Bradley,* 600 F.2d 807 (C.C.P.A. 1979); and, *Diamond v. Diehr,* 101 S.Ct. 1048 (1981).

9. International Bureau of the World Intellectual Property Organization, "Model Provisions on the Protection of Computer Software" (Geneva, 1978), note 6 at 5, (hereinafter cited as WIPO report), reprinted in 11 Law and Computer Technology 2 (1978).

10. *See* Abel, supra, at 291.
11. *Id.*
12. *Id.*
13. *See, Parker v. Flook,* 437 U.S. 384 (1978).
14. *See, Diamond v. Chakrabarty,* 447 U.S. 303 (1980); *Diamond v. Diehr,* 101 S.Ct. 1048 (1981).
15. Bates, "Copyright Protection for Firmware: An International View", 4 Hastings International and Comparative Law Review 473, 484 (Spring 1981).
16. *Restatement of Torts,* § 757, Comment B, (1939).
17. Nimtz, "Development of the Law of Computer Software Protection.", 61 Journal of the Patent Office Society 3, 4 (1979).
18. *See,* National Commission on New Technological Uses of Copyrighted Works, Final Report, July 31, 1978, at 22 (hereinafter cited as CONTU).

19. *See* Bates, supra, at 485.
20. Keplinger, "Computer Software-Its Nature and Its Protection", 30 Emory Law Journal 483, 485 (Spring 1981).
21. *Id.* at 498.
22. *Id.*
23. *Id.* at 501.
24. 17 U.S.C. § 102 (Supp III, 1979).
25. *See* Keplinger, supra, at 507.
26. *Id.* at 509.
27. *See* Abel, supra, at 294.
28. "WIPO Advisory Group: A Report", Law and Computer Technology 124, 128 et. seq. (Sept/Oct. 1975).
29. *Id.* at 136.
30. *Id.*
31. See WIPO Report, supra, at 12-13.
32. Brett and Perry, *The Legal Protection of Computer Software,* 178 (Oxford 1981).
33. Salzman, "International Protection of Computer Software", 14 Law and Computer Technology 3, 16 (1979).
34. *Id.* at 12.
35. *Id.* at 17.
36. Galbi, "Proposal for Protection of Computer Programs", 17 Bulletin of the Copyright Society 280, 284 (1970).
37. Interim Report of the Software Legal Protection Investigation Committee of the Japanese Ministry of International Trade and Industry (MITI Report); reprinted in 6 Computer Law Service Reporter (Bigelow), sec. 9-4, art. 3 (1973).
38. *See* International Bureau of WIPO, supra, at 252.
39. *Ibid.* at 253.
40. *See* "WIPO Advisory Group: A Report", supra, at 135.
41. *See* Abel, supra, at 310; citing "Petty Patents in the Federal Republic of Germany: A Solution to the Problem of Computer Software Protection?" 8 SW. Univ. L. Rev. 888 (1976).
42. *See* Bates, supra, at 483.
43. *See* Abel, supra, at 311.

The Right of Information Privacy in the Private Sector: Evaluation and Proposals for the Computer Age

by John P. McCoy

Introduction

Over the past decade there has been widespread concern, both on the Congressional and scholarly levels, with the general subject of computerized information processing and individual privacy. This concern is a product of the concurrent rapid advances in the information storage and retrieval capacities of the computer.[1] The result is that today it is easier and cheaper to store information on a computer than to destroy it. To destroy data generally requires that it be run through the computer, consuming expensive system time. Retrieval of data which took months in a manual system, can now be done in seconds.[2]

While technology has made it more economical to preserve data, the amount of information which is kept on any one individual has increased. It has been noted that the "increased capacity to handle information creates strong pressures to acquire more of it."[3] The extensive use of data kept by both government and business organizations would seem to be evidence of this assertion. Extensive dossiers are easily maintained on individuals who apply for credit, insurance, medical care, or employment benefits. These dossiers are used to assess the eligibility and the risks posed by a particular individual.[4] In addition to such business activity, government at every level maintains comprehensive record-keeping systems which contain personal details about individuals who have applied for government benefits, or whose activities have become the subject of law enforcement activity. The Internal Revenue Service itself is one of the primary collectors of personal information in the country.

At the same time that technology has made it easier for organizations to store more data on individuals, there has been an increased demand by those individuals for services from the organizations. From government there is the expectation of social security, unemployment compensation, and all levels of welfare.

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From business there is the increased use and expectation of credit in all forms. Banks and insurance companies are diversifying and providing more forms of services to their customers.

As the demand for benefits and services has increased, organizations have been forced to be more efficient in their record-keeping.[5] Those organizations which have embraced computer technology in response to these changing business conditions, have also encountered basic changes in the nature of their decision making process. Before computerized record-keeping, most benefits such as credit and insurance were given on the basis of personal knowledge of the applicant, along with decentralized public records. However today, decisions regarding the economic risks which a particular individual poses to an organization are typically made on the basis of information contained in automated record-keeping systems, often without any personal contact between the organization and the individual.[6]

This computerized aspect of benefit disbursement and decision making is further compounded by the fact that the sharing of information among private organizations, and between private and governmental entities, occurs frequently; such sharing being facilitated by the above mentioned storage and communication facilities of the modern computer.[7] There are even some private agencies that monitor the activities of individuals, and report these activities to their subscribers for a fee.[8]

The result of this increased efficiency in personal data storage has been a corresponding loss in the ability of the individual to control the use of personal information. This ability of the individual to control the flow of information about himself has been characterized as central to the right of "information privacy."[9]

It is not suggested that this right of information privacy is absolute, and that organizations have no right to collect and store personal data. The individual who applies for credit or insurance, or for a government entitlement, cannot realistically expect to receive such benefits without giving up a certain amount of personal information in return. Business and government have a legitimate need for a broad information base, including data concerning an individual's health, credit worthiness and habits, in order to properly assess his need for the benefit for which he has applied. They also need to know the risks involved in transacting business with him. Even those who criticize many of the applications of computer technology to data management, on the basis of personal privacy infringement, acknowledge that there are also advantages to be gained from computerized information systems.[10]

The existence of computerized information systems is thus an assumed starting point. The focus then shifts to the use of the personal data contained in these systems. It would seem that a greater threat to the right of information privacy lies in the potential dissemination of personal data beyond those purposes for which it was originally collected.[11] The legal issues in such computer transfers of personal data still involves balancing the right of information privacy against the organization's need for efficiency and economy.[12] When personal data is used out of context, it follows that the former right is being infringed.

Concern over the right of information privacy led to the enactment of the Privacy Act of 1974. However, the Privacy Act only regulates the information procedures of federal agencies. It does not reach the activities of private organizations such as credit agencies, banks, and insurance companies, which themselves compile large data banks. Yet the right of information privacy is just

as pertinent to an individual who has been denied credit for irrelevant reasons as it is to an individual who has been denied a government welfare benefit.

The focus of this paper will therefore be to examine the existing legal framework in order to determine its possible application to control of the information-related activities of private business organizations in the United States. Particular attention will be paid to consumer credit agencies, banks and insurance companies, since these organizations make the most use of large scale computerized data in their decisions to disburse or deny benefits. In evaluating current and proposed judicial, statutory, and administrative solutions to the information-related activities of private business organizations, the competing interests of the individual and private industry will be kept in mind.

One other restriction is that this paper is only concerned with the regular information practices of these organizations, and does not deal with the topic of security systems and prevention of computer crime.

Discussion

The common law concept of the right to privacy received its initial impetus from the Warren and Brandeis article in the Harvard Law Review entitled "The Right to Privacy." (4 Harv. L. Rev. 193(1890)). Written in response to perceived overzealous use of photography by the press, the article defended the individual's "right to be let alone."[13]

The modern common law tort of invasion of privacy can be divided into four general categories: unauthorized appropriation of a person's name or likeness for commercial purposes, placing a person in an objectionable false light in the public eye, intrusion upon a person's seclusion or solitude, and unreasonable public disclosure of embarrassing matters concerning a person's private life.[14]

The first two categories would not appear to be very applicable to the concept of information privacy. "False light" is only relevant if the information is false, and it also requires public disclosure. One legal writer has argued that courts should expand the false light doctrine to permit lawsuits by "those who have been injured by the dissemination of information that is misleading, has been used out of context, or has become inaccurate because of age or failure to include other relevant data."[15] However in the twelve years since this argument was made, the courts have given no indication that they will so expand the doctrine.[16]

Wrongful appropriation would also appear to be a weak ground for a privacy suit involving a computer. The only possibility would be to analogize personal information stored on a computer with a person's likeness or photograph. Such attempts to apply appropriation theory have been critized as "contorting legal principles that were developed to serve a radically different purpose."[17]

The tort of public disclosure of private facts comes close to the concept of information privacy. However this tort has been found applicable only to disclosure through a public medium, such as a newspaper or the radio.[18] It is not likely that an individual would learn of his denial of credit or insurance over one of these mediums. The definition of "public disclosure" would have to first be found by the courts to include the single employee of the private agency who may read the file. Such a narrowing of public disclosure has yet to be reached.

Intrusion into individual solitude is potentially useful to suits against private agencies because it does not require public disclosure. Several cases have indicated that the common law right to solitude extends beyond a person's immediate physical environment, and reaches personal information about him.[19] However the problem with these cases is that they focus on whether the private information is obtained through intrusive means. In the case of the credit agency or insurance company the data has already been acquired and stored. As already noted, this data is needed by these organizations to make intelligent business decisions. In fact, rather than having his solitude intruded upon, the person who has applied for credit or insurance usually voluntarily gives up the information. From this perspective of information privacy the concern is therefore not with the storage of the data, but with the potential for its subsequent improper use. Thus it would seem that the tort of intrusion into physical solitude is at best only distantly analogous to the concept of information privacy as it applies to private organizations.

The basic difficulty with fitting common law privacy concepts into computer related situations is that the common law protections were developed in a pre-technological era. The Warren and Brandeis article itself, though concerned with the effect that technological advances would have on the right of privacy, defined privacy in terms of traditionally protected interests.[20] Privacy torts such as wrongful appropriation of a person's likeness dealt with photography, and are not easily adaptable to misuse of information cases. As one legal writer has noted: "The criteria that were developed to protect the common law notion of privacy, were not appropriate for preventing the more subtle invasions of privacy made possible by the development of computer technology."[21] Even if the common law may one day evolve into an effective tool for challenging computer assisted invasions of privacy, as the above writer suggests, it is submitted that the common law method of evolution is too slow to keep up with the pace of information technology. In any case, there should be protection provided for information privacy during the interim.

The right of privacy was given a constitutional dimension in *Griswold v. Connecticut*, 381 U.S. 479 (1965), when the Court recognized that a prohibition on birth control counseling violated individual privacy. The Court reasoned that various specific guarantees in the Bill of Rights created "zones of privacy." *Id.* at 484. In effect then, in order to prove a violation of the constitutional right of privacy, a plaintiff must link that right to one of the specific guarantees in the Bill of Rights. Thus in *NAACP v. Alabama*, 357 U.S. 949 (1958), the Court found that a private organization and its members had an assertible interest in the confidentiality of the organ-

"[T]oday it is easier and cheaper to store information on a computer than to destroy it."

ization's membership lists. In protecting this interest, the Court emphasized that government access to such information would be an effective restraint on the member's rights of free association. *Id.* at 462-463.

The rationale of *NAACP* could perhaps be extended to the assertion that the constitutional right of privacy should include the interest which a person has in preserving the proper use and confidentiality of personal information that he has disclosed, or which has been collected by an organization without his knowledge. Though *Griswold* recognized the constitutional right of privacy, it did not delineate the scope of the right. While subsequent cases have extended *Griswold* to include distribution of contraceptives to unwed couples, and the right to an abortion, the Court seems unwilling to expand the constitutional right of privacy beyond "certain basic matters of procreation, marriage, and family life". *Kelley v. Johnson*, 425 U.S. 238, 244 (1976). Indeed the Court has explicitly refused to extend its notion of privacy to protect personal information held by a bank, such as checks, from disclosure to the government upon the latter's request. *U.S. v. Miller*, 425 U.S. 435 (1976) (The *Miller* decision was statutorily overruled by the Right to Financial Privacy Act of 1978. See below.).

The Supreme Court has at least recognized the threat posed by large-scale computerized information collection and processing. *Whalen v. Roe*, 429 U.S. 589 (1977). In that case the Court held that the constitutional right to privacy did not prevent a state from using a computer to compile information on individuals obtaining medical prescriptions for certain drugs. *Id.* at 594. The statute in question required the recording of patient information in a centralized computer file to assist in the investigation of prescription abuses. The Court found that the statute contained proper safeguards to protect patient privacy interests (The information was kept in a locked vault and was to be destroyed after five years.).

While generally denying that such a scheme invaded a protected sphere of privacy, the Court indicated that absent appropriate safeguards for this sensitive information, it might find otherwise. *Whalen* at 595. Justice Stevens, writing for the majority, indicated in dicta that the Court was "not unaware of the threat to privacy implicit in the accumulation of vast amounts of personal information in computerized data banks." *Id.* 605. Justice Brennan, in his concurring opinion, was even more emphatic in his concern over the future of computerized data storage, saying that "future developments" may demonstrate the necessity for curbs on the technology. *Id.* at 607.

"The result of this increased efficiency in personal data storage has been a corresponding loss in the ability of the individual to control the use of personal information."

The dicta in *Whalen* shows the Court's awareness of the threats posed by computers on information privacy. However in the six years since the decision the Court has not defined the "future developments" that must exist in order for the constitutional right of privacy to include information privacy. The Court emphasized the importance of the statutory safeguards which limited disclosure in *Whalen*. Perhaps the absence of such safeguards in the established information practices of private agencies would be the catalyst that would trigger an expansion of the privacy doctrine.

Yet even if the constitutional right of privacy is expanded to include greater protection of personal information, a major problem exists in its application to the information activities of private agencies. This problem is the general principle that in order to apply a constitutional right to a non-government entity, state action must be involved.[22] An argument could be made that state action exists in the area of information sharing between private and governmental organizations. However a finding of state action against an insurance company or credit agency may be difficult to support. This is particularly true in light of the determination that merely because government regulates a business, or uses the services of a private organization, is not sufficient to support a finding of state action. *Moose Lodge No. 107 v. Irvis,* 407 U.S. 163 (1972).

Another basic problem with a constitutional development of information privacy doctrine concerns the length of time required to get a case to the Supreme Court. An individual may not be aware that his privacy has been infringed until some time after it happens, and at that point he may not wish to undertake the expense of bringing a case through the channels and up to the Court. At the same time it must be remembered that the Court is a "passive" body, and will not decide an issue until the facts are presented before it. Furthermore there are the particularly vague guidelines in this area exemplified by the Court's dicta in *Whalen v. Roe.*

Taken together, these factors tend to point to the conclusion that the right of information privacy in the private sector is not best developed in the constitutional framework. As one legal writer has put it: "the imprecision and fragmentation of a case-by-case approach may make exclusive reliance on a constitutional principle an ineffective and incomplete approach to privacy protection."[23] The vague constitutional standards which currently exist in the area of information privacy give little guidance to private organizations, and thereby disrupt the balance between these organizations and the individual.

A third potential area for the development of the concept of information privacy is in statutory regulation. Present legislation provides a mixed degree of protection against the misuse of computerized data in the private sector. The Fair Credit Reporting Act of 1970 (FCRA) was the first federal response to the problem.[24] The FCRA focuses upon fairness in the collection and dissemination of information by credit and investigatory agencies, by requiring that such agencies establish procedures which respect the consumer's right to privacy. In addition, the FCRA give individuals the right to review their own credit file and challenge the fairness, accuracy, and timeliness of the information.[25]

However the FCRA suffers from several deficiencies in its regulation of private consumer credit agencies. Specifically, the Act has an ambiguous provision which allows the agency to furnish a report to persons whom the agency be-

lieves have a "legitimate business need" for the information.[26] This need can be connected with credit, employment, insurance or any other benefit. Relief under the FCRA is also only available after the consumer has been the subject of an adverse decision by a private agency.

More generally, the FCRA creates the problem of placing the ultimate enforcement burden on the consumer.[27] The individual who is subject to an adverse credit decision must therefore interpret a complicated statutory scheme of relief to determine both his own rights, and the responsibilities of the credit agency. The exceptions to the general purpose of the FCRA illustrate the difficulty in attempting to regulate the extensive information activities of private agencies through one comprehensive piece of legislation.[28]

Congress has passed a greater amount of legislation that regulates government agency information practices. The Privacy Act of 1974 requires federal agencies to disclose annually what records they keep, limits disclosure by federal agencies of personal data from agency records (including intraagency disclosures), and gives individuals a limited right of access to, and opportunity to correct, agency records.[29] The Privacy Act only allows relevant and necessary data to be gathered by the federal government.

Though the Privacy Act is only applicable to federal agencies, it would appear to have some importance for private organizations which make extensive use of computerized information. For example, the fact that individual federal welfare statistics are not available to a private credit agency may influence that agency's decision to provide credit. The Privacy Act therefore has at least an indirect effect on the private sector.

However there is some question as to whether the Privacy Act is effective in its practical application, even when applied to government agencies. For example there is the federal program begun in the 1970's called Project Match. The purpose of Project Match is to detect welfare fraud by government employees.[30] Relying on a universal identifier (social security numbers), Project Match uses computers to compare lists of welfare recipients with lists of government employees. If a name appears on both lists an investigation is triggered. If no good reason is found for why the name appears on both lists then credit may be denied.

The Privacy Act included a number of restrictions on the dissemination by federal agencies of personal data. Project Match has been cited as a program which highlights the exceptions and loopholes to the Act.[31] This article gives a detailed account of how the Health, Education, and Welfare department tailored the Project to the Act's exceptions, thereby circumventing its original purpose of "protecting the privacy of individuals in information systems maintained by federal agencies."[32]

When Project Match was first introduced it was greeted with a strong negative reaction from the public and the press.[33] Recently the Reagan Administration proposed a national data bank that would include information not only on welfare recipients, but also on recipients of programs ranging from food stamps to veteran entitlements. This data bank was to be available to both federal and state agencies. However the proposal met with such a strong public outcry that the Administration was forced to drop, at least temporarily, the idea of using computers in such a data bank.[34]

These examples indicate that there is a general public awareness of the potential privacy implications of national data banks, particularly those enacted by the federal government. Indeed most criticism by privacy advocates has focused on proposals for such centralized data banks. However such criticism may miss the point. One legal scholar has noted that "the present extensive and ad hoc exchanges of data between separate systems may pose a greater threat to personal privacy."[35] This point is especially pertinent to the decentralized data banks of private organizations. Unlike national governmental data banks which are more highly visible, there has been no public outcry against the "extensive exchanges of data" which routinely occurs among such private agencies. This lack of public awareness itself creates at least one argument for the enactment of more comprehensive regulation of such organizations.

There are two other federal statutes that have an effect on the information activities of private agencies. The more important of these is the Right to Financial Privacy Act of 1978 (RFPA).[36] The RFPA directly overruled the decision of *U.S. v. Miller*, in which the Court held that the right to privacy did not extend to personal information held by a financial institution. The RFPA recognized that such information systems did threaten privacy rights, and it therefore limited the federal government's access to records held by banks and financial institutions.[37] However section 3402 of the RFPA contains certain disclosure mechanisms by which the government can get access to these records. These mechanisms include a search warrant, subpoena, or formal written request.

On the surface the RFPA prevents unwarranted intrusion by government into an individual's financial affairs. Yet a survey by the Privacy Protection Commission (established by the Privacy Act), found that up to 99% of government requests for credit card information were granted, even if the request was made over the phone. The subject of the request was usually never notified, nor was any permanent record made.[38] Also, under section 3417(c) the financial institution is protected from liability if it makes a disclosure in good faith. The RFPA also does not reach the exchange of data among banks and other financial institutions. Thus like the Privacy Act, the RFPA only partially realizes its goal of providing protection for personal information.

The same conclusion applies to the Family Education and Right to Privacy Act (FERPA).[39] This Act regulates information practices of federally funded schools. The statute reflects a concern for fair procedures in the collection of data, access by parents and students of majority age to the student's educational records, and dissemination of "personally identifiable information."[40]

This survey of existing statutes indicates that federal regulation of informa-

"The Supreme Court has at least recognized the threat posed by large-scale computerized information collection and processing."

tion privacy in the private sector is best described as piecemeal. Congress had considered the possibility of taking an omnibus approach to regulation in this area. The original version of the Privacy Act of 1974 contained provisions which would have made it applicable to private industry; but the final version omitted such provisions. Congress chose to postpone its decision to regulate private sector activity in a more comprehensive manner until a full study of current information practices could be completed.[41] The Act thus created the Privacy Protection Commission, a seven member independent body of experts in such fields as civil liberties, records management, and computer technology. The Commission was to investigate information practices and make recommendations to the President and Congress regarding the extent to which the Privacy Act should be extended to private organizations and state governments.[42]

The Commission submitted its report in 1977. In that report it made a number of recommendations, all of which urged the regulation of several private industries; in particular, credit agencies, financial institutions, insurance companies and medical facilities.[43] Basically the Commisssion urged that individuals should have: access to personal information possessed by these organizations; the right to inspect, copy, and challenge the accuracy of the records; a legally enforceable "expectation of confidentiality" that would protect them from institutions divulging personal data to other private or governmental organizations without the individual's consent.[44]

Congress has not yet implemented these recommendations by passing a comprehensive bill addressing the issue of information privacy in the private sector. Most of the recommendations made by the Commission have been incorporated in a series of bills which were introduced, but not passed, in the 97th Congress.[45] It would not be unreasonable to expect some type of legislation in this area in the near future.

The question thus becomes whether such an Act would be the best method of balancing the individual's right to control the flow of personal information, against a private organization's need for efficiency without being bogged down by excessive regulation. One legal writer has argued that record-keeping practices in the private sector are too diverse to be subject to legislative or regulatory provisions of general applicability such as those proposed at the 97th Congress.[46] This writer goes on to say that private sector regulation must be tailored to specific industries and organizations, and should only be issued when there is no alternative to such statutory control.[47]

"Present legislation provides a mixed degree of protection against the misuse of computerized data in the private sector."

These proposals merit consideration in light of the application of existing regulatory statutes. Those statutes such as the FCRA and Privacy Act are filled with so many exceptions and loopholes that their original purpose is submerged. In addition, general regulatory statutes impose costs of implementation and compliance upon all businesses, whether or not their regulatory practices infringe upon privacy rights.[48] For these reasons, any further federal regulation protecting information privacy should be limited to those private organizations (such as credit agencies, banks, and insurance companies), in which the potential for misuse of computerized personal information outweighs the cost of compliance.

Implicit in this discussion of proposed schemes for privacy protection is the belief that judicial solutions, both common law and constitutional, are not effective vehicles for immediate further development of information privacy rights. The legal system has historically been slow in accomodating its doctrines to new technologies. The length of time it took the rules of law relating to warranty and negligence to take account of the automobile and our mass production economy illustrates this point. Courts today have had difficulty applying the four basic common law torts of invasion of privacy to computerized information cases. The Supreme Court has likewise not gone very far in this area, merely voicing its concerns in dicta. The Court's policy of only deciding constitutional issues when necessary would seem to make it difficult for it to keep up with the pace of computer technology.

It is also suggested that the form of any regulation in this area should be national in scope, and should preempt state legislation to a great extent. It is acknowledged that that assertion goes against recent deregulation trends. However it is based on the notion that a national policy has the primary advantage of promoting uniformity. In other words, private sector information should be looked at from the perspective of interstate commerce. If regulation is left to the states, there exists great potential for the enactment of inconsistent or conflicting legislation, possibly resulting in undue burdens upon a business operating in more than one jurisdiction. Such has been the case of the FRCA, under which states may enact their own regulations.[49] The remainder of this paper will consider various means to implement this policy, and will propose a possible compromise solution to the problem of information privacy in the private sector.

Proposals

Although the Privacy Protection Commission recommended laws to implement many of its principles, it did not suggest the creation of a regulatory agency to enforce them. Instead, it urged that individuals be given a right of action against persons and organizations who violate the principles. This legal action would be for court costs, actual damages, and for general damages of $1000 to $10,000.[50] This proposal is preferable to the common law solution, in that the laws are clearly defined. However it again puts the burden of enforcement on the consumer. It would be difficult for a person who has been denied credit to monitor a private agency's information practices to determine if it has complied with the law.

A few recent articles have proposed the idea of a federal administrative agency to implement and enforce regulation of private organizations.[51] This proposal has a great deal of initial appeal. First of all such broad delegation of power to an

administrative agency has been consistently upheld by the Supreme Court.[52] In addition, an administrative agency would develop greater expertise than that which currently exists in Congress. This concept of specialists with technical expertise is the basis for Congressional delegation.[53] In the rapidly changing area of computer systems it becomes even more important. An administrative agency would therefore have the flexibility to adapt to quick developments in computerized data management, where a statute may soon become obsolete.

Still an administrative agency regulating the private sector would not be without its problems. The basic problem is that the federal agency would itself become part of the federal bureaucracy. To properly regulate the various information activities of diverse industries, the agency would have to have powers of subpoena and inspection. Such investigatory powers would potentially infringe upon the operations of private organizations. Thus in performing its administrative duties, the agency runs the risk of losing its initial advantage of flexibility and expertise. Large-scale regulation of the private sector by such an agency might therefore tip the balance too far in favor of the individual. A federal regulatory agency would perhaps best serve to regulate the information practices of other government agencies, where the private business interest is not so great.[54]

It may perhaps be best to leave the protection of the right of information privacy up to the private organizations themselves. A recent survey found that the majority of insurance companies have taken at least some steps on their own to protect consumer privacy; whether it be by obtaining written authorization from applicants before gathering information, or by regularly evaluating their record-keeping systems to assess privacy standards.[55] However the solution of no regulation seems to lean too far in favor of organizational efficiency, and leaves protection of the individual to chance.

It is proposed here that a compromise solution to the problem would be the establishment of an enlarged and permanent Privacy Protection Commission. This new Commission would be an independent technical advisor to Congress, and would regularly make reports and recommendations to it and the President. The new Commission would keep abreast of current information practices of specific types of private organizations through an informal monitoring system. It is suggested that this informal nature of the Commission would preserve it from the federal bureaucracy, and allow it to keep its technical expertise. In this way the Commission could perhaps serve as a communications link between Congress and existing federal agencies, and private organizations, thereby enabling Congress to be more receptive to the private sector, and to better develop legislation that will meet the changing technology.

This proposal only deals with one facet of the problem of information privacy. Congress must still pass the substantive legislation. The Privacy Protection Commission report of 1977 urged regulatory standards to be set for private organizations which make extensive use of computerized personal data banks. Proposed regulation should be tailored to these specific organizations. In this way the balance between the individual's right of information privacy, and the organization's need for efficiency and economy comes closest to being preserved.

Notes

1. Privacy Protection Study Commission, Technology and Privacy 20-33 (1977). (The Privacy Commission was created by the Privacy Act of 1974.)
2. Linowes, "Must Personal Privacy Die in the Computer Age?", 65 ABA L.J. 1180, 1182 (1979).
3. Gordon, "The Interface of Living Systems and Computers: The Legal Issues of Privacy," 2 Computer L.J. 877, 889 (1981).
4. Miller, "Computer Data Banks and Individual Privacy: An Overview.", 4 Columbia Human Rights L.Rev. 1 (1972).
5. Privacy Protection Study Commission, Personal Privacy in an Information Society 3-4 (1977).
6. *Id.*
7. Privacy Protection Study Commission, Technology and Privacy 20-33 (1977).
8. *See* Linowes, supra, at 1183.
9. *See* e.g. Murdock, "The Use and Abuse of Computerized Information", 44 Albany L.Rev. 590, 601 (April 1980); Andrews, "An Overview of the Emerging Statutory Right of Information Privacy", 10 Law and Computer Technology 82 (1977).
10. Miller, *The Assault on Privacy*, (1971) at 259.
11. *See* Murdock, supra, at 603.
12. Langan, "Computer Matching Programs: A Threat to Privacy?", 15 Columbia Journal of Law and Social Problems 143, 172 (1979).
13. 4 Harv. L. Rev. 193, 195 (1890).
14. Prosser, *Handbook of the Law of Torts*, 49-62 (4th ed. 1971).
15. *See*, Miller, *The Assault on Privacy*, supra, at 184-185.
16. Washburn, "Electronic Journalism, Computers and Privacy", 3 Computer L.J. 189, 202 (Winter 1982).
17. *Id.*, *See Shibley v. Time Inc.*, 341 N.E.2d 333 (Ohio Sup. Ct. 1975).
18. *See* Murdock, supra, at 601.
19. *See* Washburn, supra, at 198-200.
20. *See* 4 Harv. L. Rev. at 200-204 (1890).
21. Tunick, "Computer Law: An Overview", 13 Loyola of Los Angeles L.Rev. 315, 335 (March 1980).
22. *See* generally Gunther, *Cases and Materials on Constitutional Law*, at 906-953 (8th ed. 1978).
23. *See* Murdock, supra, at 599.
24. 15 U.S.C. §§ 1681 - 1681(t) (1970).
25. 15 U.S.C. § 1681(g).
26. 15 U.S.C. § 1681 (b)(3)(e).
27. Halls, "Raiding the Data Banks: A Developing Problem for Technologists and Lawyers", 5 Journal of Contemporary Law 256 (1979). (The FTC is charge with enforcement under the Act, but it has relied on private enforcement.).
28. *See* Murdock, supra, at 607.
29. 5 U.S.C. § 552(a) (1976).
30. *See* Langan, supra, at 144.
31. *Id.*, at 148-150.
32. *Id.*, at 160.
33. *Id.*, at 146.
34. *Computerworld*, April 20, 1981 at 1, col. 4; Wood, "Computers and the Protection of Individual Liberties"; 30 American Journal of Contemporary Law (Supp) 583, 594 (1982).
35. Greenawalt, "Legal Protections of Privacy", at 91 (1975).
36. 12 U.S.C. §§ 3401-3422 (1978 Supp.).
37. 12 U.S.C. § 3402.
38. *See* Linowes, supra, at 1183.
39. 20 U.S.C. § 1232(g) (1976).
40. 20 U.S.C. § 1232(g) (a)-(c).
41. Legislative History of the Privacy Act of 1974, 93rd Congress, 2d Session (1974), U.S. Code Cong. and Admin. News 6934-6936.
42. *Id.*
43. Privacy Protection Commission Report (summary). CQ Almanac (1977) at 604.
44. *Id.*
45. H.R. 1984 (Goldwater-Koch Privacy Bill).
46. *See* Andrews, supra, at 88.
47. *Id.*
48. *See* Murdock, supra, at 609.
49. *Id.*, at 612.
50. *See* Linowes, supra, at 1184.
51. *See* Murdock, and Langan, supra, note 9.
52. *See* Davis, *Administrative Law Text.* (3rd ed. 1972), at 26-52.
53. *See* Lanagan, supra, at 177.
54. *Id.*
55. Freedman, "Right of Privacy in the Use of Computer Data and Processing", 13 Texas Tech L.Rev. 1361, 1380 (1982).

"Cornelius J. Moynihan: From the Ivory Tower to the Wooden Bench and Back Again."

Interview by Frederick J. Watson

Cornelius J. Moynihan initially decided to become a lawyer at the age of 13, when he proudly announced his career aspirations to his friends. "I had a very vague impression of what a lawyer did," he recalled, "and I had the engraved impression that a lawyer was someone who was a responsible member of society." While in his junior year at Boston College, Moynihan's earlier intention to pursue a legal career was reinforced when he decided to forgo teaching high school in favor of entering the legal profession. It was during his days at Boston College that he had the opportunity to observe several trials in Boston and he admits to being fascinated by the trials and the lawyers involved.

He entered Harvard Law School in 1926, at a time when the socratic method was the accepted and exclusive mode of teaching young entering law students. "Law teaching nowadays is a great deal more of what could be called exposition and lecturing than there was in my day," he soberly noted. "In my first year of law school, most of the teachers used the socratic method exclusively and it imposed a very severe burden on students."

Upon graduation from law school, Moynihan entered private practice for two years and landed a teaching position at Boston College Law School in 1931 — at the tender age of 26! At the time, he was embarrassed at being the youngest member of the faculty. However, in retrospect, he readily admits that it is no longer a source of embarrassment. He also concedes that his youth made teaching difficult and challenging.

Moynihan's tenure at Boston College was briefly interrupted 11 years later with the outbreak of World War II. Being slightly overage by one year (He was 36 years old), he was exempt from military service. Although unable to serve his country in uniform, Moynihan took a leave of absence from teaching and utilized his legal skills for Uncle Sam as Regional Enforcement Attorney for the Office of Price Administration from 1942-45. In this capacity, he supervised the enforcement division, which included over 120 staff attorneys, of the Office of Price Administration for the six New England states. The office was entrusted with the task of enforcing price regulations and rationing of goods, including federal rent control. Moynihan's responsibility, as Regional Enforcement Attorney, was to be certain there were no violations of government-imposed price controls by manufacturers, retailers, merchants and distributors. One of the biggest problems according to him, was enforcing gasoline rationing.

"It was economically necessary during the war period, due to the shortage of goods, to enforce price controls rigorously because if the normal market factors of supply and demand were allowed to operate, prices would go skyhigh and that would have constructively impeded the war effort," he explains.

The war had a tremendous impact on the law schools, according to Moynihan. "You must remember this," he stated, "law schools were in a state of suspended animation. The only students who were not subject to the draft were those that had mental or physical disabilities or were overage. Since the law schools could not fall back on a female student body, you simply had a handful of students in every law school. I think, for example, at one point during the war at Boston College, there were only 19 students."

At the conclusion of the war, Moynihan left his government post and returned to the familiar campus of Boston College. After 18 more years of teaching, Professor Moynihan was addressed as Judge Moynihan upon his appointment to the Massachusetts Superior Court in 1963. The transition from the ivory tower to the wooden bench was not especially an easy one, according to him.

"One difficulty of a law professor becoming a judge is that the law professor almost by necessity is forced to become a specialist in a few areas of the law and he must concentrate intensely on those areas. Whereas, being a judge of a court such as the Superior Court of Massachusetts, he is required to deal with cases that cover practically all aspects of the law. The Superior Court of Massachusetts is a court of general jurisdiction, both civil and criminal, and certainly the average law professor has very little contact with the criminal law. Yet, the trial judge is expected to sit on both the law and equity side and is also required to sit on jury and bench trials; so he is really in contact with cases which touch the whole gamut of the law," he explained, adding, "that makes it difficult ... it really is difficult."

Another difficulty in being a trial judge, according to Moynihan, is that he is of necessity forced to make swift decisions on questions of law without the opportunity or luxury for reflection or study like a professor. On the contrary, a trial judge must immediately deal with objections, motions and the admissibility of evidence. "He cannot suspend the trial for three days while he conducts research on the law," he concluded.

In his 12 years on the bench, Judge Moynihan sat on hundreds of cases— from the curiously inane and humorous small claims to the serious criminal trials.

One case, which he sentimentally recalls as the "fish story," reflects a lighter side of being a judge. According to the story, a nationally-known chain of stores held a contest in connection with fishing for striped bass. A prize would be awarded to the lucky fisherman who hooked the largest striped bass. This particular person, soon to become plaintiff, entered the contest and presented a rather large striped bass to store officials. His fish was placed into a freezer at the local franchise for public display until the contest ended. The time for determining a winner arrived and the person's fish was not chosen the winner. He claimed that he advised the store to notify him when the contest ended so

that he could reclaim his fish since he intended to have it preserved as an exhibit. As luck would have it, he was not notified and the plug was pulled out of the freezer—thus rendering the fish "unworthy of restoration."

When the person demanded that the store pay him the value of the fish—$75—they declined. Like any other honest American, he consulted an attorney, who promptly filed suit in small claims court for $100 damages. At the day of the trial, the store failed to appear, whereupon a judgment by default was entered for the amount demanded. The attorney for the store filed a motion to vacate and reopen the case and the plaintiff's attorney agreed. At the second trial, the defendants again failed to appear and a judgment for $200 was entered for the plaintiff. The store appealed to the Superior Court for a jury trial and the matter came before ... you guessed it—Judge Moynihan.

At the trial, the parties were represented by inexperienced counsel, who agreed that the jury ought to be informed of the entire story. The principal defense of the defendant store was that the plainfiff failed to tell the store to notify him once the contest ended so that he could reclaim his fish. Thus, the store argued they had the right to dispose of the fish since they never heard from the plaintiff. The jury, probably comprised of avid fisherman, saw it differently, rendering a judgement for the plaintiff in the amount of $1,500!

"It was obvious to me," Moynihan opined, "that the jury believed the chain store had treated the plaintiff very unfairly and that they would teach the store a lesson." The attorney for the store was obviously shocked and he promptly filed a motion for remittitur, which the judge granted, reducing the award to $750. "I told the attorney that his client should pay the plaintiff and get rid of the case once and for all." Moynihan duly noted, rather facetiously, that he uses the story in teaching first year property law—specifically, the rights of property in the fish.

The most difficult case Judge Moynihan ever sat on, without a doubt, was *Commonwealth v. DeSalvo*,[1] the so-called "Boston Strangler" case. In all, thirteen women were murdered—strangled and sexually assaulted. The brutal murders caused widespread fear throughout eastern Massachusetts. What made them even more frightening was that all the victims were housewives murdered in their own homes. After months of investigation by state and local police and the attorney general's office, a suspect named Albert DeSalvo was apprehended.

"One difficulty of a law professor becoming a judge is that the law professor almost by necessity is forced to become a specialist in a few areas of the law ... [w]hereas, being a judge ... he is required to deal with cases that cover practically all aspects of the law."

It was claimed, according to Moynihan, that DeSalvo had admitted to an assistant attorney general that he was responsible for the murders. However, he made the admissions on the understanding and agreement that they would not be used against him in any criminal proceeding, thus rendering them inadmissible. DeSalvo was indicted and tried before a jury in the Superior Court in Cambridge; not on the charge of murder, but on lesser charges of assault and battery on four of the victims, breaking and entering and one count of armed robbery.

As expected, the trial attracted an enormous amount of publicity. In addition to the number of persons wishing to witness the trial, there were well over 100 representatives of the news media: radio, television, newspaper and magazine reporters from all over the country, giving the trial national prominence. DeSalvo was represented by F. Lee Bailey, who asserted the defense of insanity on behalf of his client; that he was mentally ill and not legally responsible for his actions.

"Now at the time of the trial" Moynihan said, "the law of criminal responsibility in Massachusetts was based on the McNaghten rule plus the irresistible impulse doctrine, but I sensed that the Supreme Judicial Court was about to adopt the insanity test promulgated by the American Law Institute in the Model Penal Code." So in his charge to the jury, he instructed them that the criminal responsibility of the defendant should be determined on the basis of the American Law Institute criteria: that a defendant is not criminally responsible for his conduct if he lacks the substantial capacity to know the wrongfulness or criminality of his act or lacks substantial capacity to conform his conduct to the requirements of the law. "That was an innovative ruling at the time," he frankly recalls, "but I was sustained by the Supreme Judicial Court on appeal and that has been the law in Massachusetts on criminal responsibility ever since."[2]

Moynihan admits that presiding over the trial was very exciting since it commanded a great deal of attention. He found it especially interesting to speculate as to whether or not the trial would have been televised if it occured at the present time, since cameras of any kind were not permitted at the time of the trial. "It would have been more difficult to handle the trial if television cameras

"I think the public has legitimate interests in the administration of justice ... I don't think serious crime ought to be treated lightly."

had been permitted at that time," he opined.

Commenting on an alleged recent brutal gang rape in New Bedford, where relatively low bail was initially set—creating a tremendous public furor, Judge Moynihan had this to say: "I don't think public opinion should be totally disregarded. I think the public has legimate interests in the administration of justice. The public has a right to express its opinion with respect to the way in which the law is being administered. Now that is a far cry from saying that guilt or innocence of a particular person should depend on public attitudes ... but crime is not solely the business of lawyers and judges. Where the crime was one of forcible rape, I was inclined to impose heavy bail and I imposed heavy sentences." Moynihan's tough stance was manifested in the case of a defendant who raped an 80-year old woman. The man was sentenced to life imprisonment. "This was his third offense and I made up my mind that this was the last time he would ever commit that crime. I don't think serious crime ought to be treated lightly."

In 1975, after 12 years on the bench, Judge Moynihan retired at age 70. However, inactivity was the farthest thing from his mind. He again returned to Boston College to teach for one semester and was a Visiting Professor at the University of San Diego Law School. Although eligible to return to the Superior Court as a judge on recall (he did return for four months), he discovered he preferred teaching. When told that teaching must be his first love, he replied in his distinctive, deep, resonant voice, "I suppose that's true."

Moynihan came to Suffolk University Law School in 1976. Although he has taught the subjects of Business Associations, Future Interests, Sales, Property and Wills and Trusts, he presently teaches first year Property and second year Wills and Trusts. He particularly relishes teaching first year students at Suffolk. "First year law students are a lot of fun ... they are delightful in their innocence. They have a fresh viewpoint ... fresh insights ... and on the whole, are enthusiastic," he relates.

"First year law students are alot of fun ... they are delightful in their innocence."

As a law professor, Moynihan admits to being very demanding and he does not worry about popularity with his students. "I don't take that (popularity) into consideration. My job is to give the students the best possible training. I don't run a popularity contest. Some of the students believe I'm very demanding ... well I am demanding and I intend on going right on being demanding. In the long run, students don't thank you for being easy with them. I let the chips fall where they may," he says.

Moynihan's methods must be effective, for he is a Distinguished Professor of Law at Suffolk and the Cornelius J. Moynihan Award for teaching excellence is awarded each year to a faculty member. He is Chairman of the Massachusetts Advisory Committee on Rules of Civil Procedure and is a member of the prestigious American Law Institute of the American Bar Association. He has authored several books and law review articles on the law of property.

Asked how he feels about being addressed as 'Judge' Moynihan, he unpretentiously replied, "It makes no difference to me whether you call me professor, mister or judge."

Notes

1. 353 Mass. 476, 232 N.E.2d 921 (1968).
2. The Supreme Judicial Court announced the new standard of criminal responsibility in the case of *Commonwealth v. McHoul*, 352 Mass. 544, 226 N.E.2d 556 (1967). The *McHoul* opinion was handed down after the Boston Strangler trial but prior to the decision on appeal.

"Some of the students believe I'm demanding ... well I am demanding and I intend on going right on being demanding."

Book Reviews

Jeremy Silverfine

Gunning for Justice

by Gerry Spence and Anthony Polk
Doubleday and Co. 1982

"Whenever I walk into a courtroom I am only another hunter, cunning and dangerous, watchful and afraid, fighting there in that dark arena where men are the game and the hunter is also the hunted." This self-description by attorney Gerry Spence captures the spirit of his autobiography, *Gunning for Justice*. Gerry Spence portrays himself as a combination of hunter and gunfighter. Spence fancies himself as a poor country lawyer of humble origins fighting the corporate Goliath on behalf of the proverbial "little man." To Spence, all of his trials are gunfights and he considers himself the fastest draw.

Over the past few years, Gerry Spence has received considerable notoriety for his "quick draw." He is a big man (he writes that he is 6'3" in boots and weighs approximately 220 pounds), who takes on big cases and wins big (eg. $26.5 million in a libel suit involving Miss Wyoming versus *Penthouse* magazine, though not covered in this book). As might be expected, Gerry Spence also has a big ego (perhaps necessary for gunfighting). Spence makes it clear throughout his book that, "there's only one captain on any ship I'm on."

Gunning for Justice, written with the assistance of Anthony Polk, revolves around three of Gerry Spence's biggest and most publicized gunfights. The individual cases illustrate Spence's diversity in a courtroom. The three cases are a plaintiff suit on behalf of Karen Silkwood, the defense of Ed Cantrell, and oddly enough, the prosecution of Mark Hopkinson. Each case exemplifies the tremendous trial skills that Gerry Spence possesses and also some of his personal quirks.

Karen Silkwood was a young plutonium worker who discovered that photomicrographs were being touched up to cover defects in the fuel rods manufactured by the Kerr-McGee Corporation. Ms. Silkwood also alleged that someone had contaminated her with plutonium. She was on her way to disclose this information to a reporter from the *New York Times* when she was killed in her automobile.

Although the name, Karen Silkwood, has become synonymous with the anti-nuclear movement, Spence assures us that he is only a hired hand chosen solely for his superior trial skills. He states several times that he is "no cause lawyer," "no card-carrying anti-nuke." Spence maintains that he is a courtroom gunfighter, albeit one with a big heart. He insists that his only interest in this case was the plight of Ms. Silkwood's three motherless children. Yet, when he decided to take the case, Spence acknowledges that he immediately recognized the important issues involving "this stuff named after Pluto himself." When Spence later appeared on the *Today Show* he became piqued when Tom Brokaw did not appreciate the importance of the case. Spence complains that Brokaw was only interested in the fact that the jury awarded $505,000 actual damages and $10 million punitive damages on behalf of Karen Silkwood (the 10th Circuit Court of Appeals later reversed 2-1).

The Ed Cantrell case drew extensive national press attention. Ed Cantrell shot a fellow Wyoming police officer. According to various press reports, the slain officer was found with his hands cupped around a wineglass between his legs in the seat of a police cruiser. Cantrell pleaded self-defense and called Spence for help. Spence was with Cantrell for no more than ten minutes, "but already knew (that) Ed Cantrell was telling the truth." As Spence explained it, he looked Cantrell in the eye and at once, "I knew this man, this gunfighter, because I am one."

The jury apparently understood, too. Ed Cantrell was declared not guilty.

The prosecution of Mark Hopkinson presents the inconsistent side of Gerry Spence. Gerry Spence tells us that in recent years he has become well-known for, among other things, his impressive track record as a defense attorney, his anti-prosecutorial feelings, and his outspoken viewpoints against the death penalty. Yet, despite those sentiments, Mr. Spence felt free to accept the offer to prosecute Mark Hopkinson. Hopkinson was accused of bombing to death Spence's old friend, Vince Vehar, and his family. Spence insisted that he was not prosecuting Hopkinson to avenge the death of a life-long friend. Why then did Spence accept the assignment? He had not prosecuted a case in over 20 years. This "hired gun" was not receiving any compensation for the case. Spence had repeatedly informed us that he is "no cause lawyer." Furthermore, although he claimed that he did not believe in it, Spence asked for the death penalty when Hopkinson was found guilty.

Gunning for Justice relies heavily upon courtroom transcripts for its text. This is both a plus and a minus. The positive side is that one gets a glimpse of the reasons for Spence's success. Spence talks to the jury in their own language. They understand him. He takes complicated concepts and transforms them into simple analogies. The negative side is that like many jurors in a long drawn-out trial, the reader often finds himself drifting off into a daydream after hearing redundant testimony.

The reader also emerges with the feeling that he missed something (while daydreaming?). There are too many questions left unanswered. For example, while Spence discusses his regret for having worked years on behalf of the insurance companies against the "little man," how does he feel about receiving a 50% contigency fee from his clients? Does Spence believe that all the people he prosecuted were guilty (he claims he never lost a case in eight years as a young prosecutor)? Does he believe that all the people he defended were innocent or just not guilty (he claims he never lost a defense case)?

The fact that Gerry Spence is so successful is both a tribute to his trial skills and an indication of the deficiencies of the criminal justice system. The verdict

in any legal proceeding would appear to rest largely upon the client's choice of representation. What happens to the individual, particularly the indigent criminal defendant, who cannot afford to pay the fees for such high-priced gunfighters like Gerry Spence? Perhaps there are no answers. None-the-less, Spence does not delve into these areas.

Gerry Spence has valiantly tried to provide an insightful look at himself during some of his trials. He attempts to reveal his inner thoughts so that we, like a jury, can take a good long look at him and understand him. *Gunning for Justice* is another case, another gunfight for Gerry Spence. The reader is the juror. Spence wants to win over those who do not know him. Unfortunately, Spence's presentation is wanting. He has forgotten that he is no longer the poor boy up against the big corporate giants. He has become one of the "big boys," too. Spence leaves this juror feeling that he still does not know Gerry Spence.

Professor Charles P. Kindregan

Joint Property

by Alexander A. Bove, Jr.
New York: Fireside Books of Simon and Schuster. (1982)

Mr. Bove has written a book on joint property for the non-lawyer. A graduate of Suffolk University Law School, Mr. Bove is a practicing lawyer and a financial columnist for *The Boston Globe*. While the lawyer will find little of interest in this book, he may want to recommend it to a client who wants an overview of joint property law. The book is clearly written and may prove helpful to the layman who wants to supplement his lawyer's advice with some background reading. The chapter on joint tenancy and divorce could use some filling out in future editions to include a analysis of equitable division statutes (now in effect in 47 states) which impose a discretionary power on the court to divide property based on factors other than title. Generally, however, the book is current with recent developments in the law, including tax considerations.

Notes

Alumni Notes

After 3½ years as an officer on active duty with the Navy Judge Advocate General's Corps in Washington D.C. **Richard X. Drennan** (J.D.'78) has joined his father and uncle in the practice of law in Pittsfield, MA.

Robert Ward (J.D.'77) has been named Assistant Professor of Law at New England School of Law. Professor Ward, a native of Philadelphia, is well known to many Suffolk students since he was an adjunct faculty member for the past several years. After graduating from Suffolk, Ward served as an L.P.S. instructor for two years. He later worked as an Assistant District Attorney in Suffolk County, prosecuting cases in Roxbury District Court.

Governor Michael S. Dukakis of Massachusetts has appointed Suffolk Law School graduate **William J. Geary**, Chairman of the Metropolitan District Commission. Mr. Geary heads the transition team which supervised the transfer of power from former Governor Edward King to Governor Dukakis and served as a top advisor to Dukakis. He previously served in the White House advance office under President Carter, and presently teaches law related courses in the Suffolk University School of Management.

Floyd H. Gilbert (J.D.'40) is presently the Legal Counsel to the Administrative Law Judges of the Securities and Exchange Commission in Washington D.C.

Edward V. Perry (J.D.'40) recently retired as a probation officer in Taunton Superior Court, Taunton, Massachusetts after 27 years of service in the Commonwealth of Massachusetts Probation Service.

Paul D. Lewis (J.D.'67) has been nominated to a newly created vacancy in the Boston Division of the Juvenile Court Department.

Andrew J. Dooley (J.D.'67) has been nominated as the District Court Judge for Taunton, replacing Guy Volterra, who was recently named to the Superior Court. Dooley is currently serving as the Clerk-Magistrate in the Brockton District Court.

An article surveying the use of computer technology by major Boston law firms was coauthored by two recent Suffolk Law School graduates. The article, written by **Ellen McGrath** (J.D.'82) and **Catherine Herrity** (J.D.'82), appeared in 67 Mass. L. Rev. 4. McGrath recently accepted an officer's commission in the Judge Advocate General Corps of the U.S. Navy, while Herrity is a research assistant at the Woods Hole Oceanographic Institute.

Edward V. Keating (J.D.'26) recently retired as Suffolk Superior Court clerk. Mr. Keating served in the office for 53 years—longer than any of his predecessors.

Carl D. Goodman (J.D.'76) was recently made a partner in the Peabody, Mass. law firm of Kamens, Harris, Donovan and Goldman.

Faculty Notes

On December 27,1982, **Professor Cornelius J. Moynihan** addressed the Bar Association of Indian River County, Florida, at Vero Beach on the topic: "The Trial of the Boston Strangler and the Defense of Insanity."

Professor Thomas Lambert addressed the Continuing Legal Education Seminar of the Alabama State Trial Lawyers Association in Birmingham on the topic: "Tea Top Tort Cases of 1982." He also participated as a lecturer and wrote a paper for the Annual Convention of the Canadian Bar Association in Toronto on March 6, 1983. The lecture/paper was entitled, "American Tort Law in the 80's."

An analysis on the new rules for civil contempt in Massachusetts was written by **Professor Marc G. Perlin** and appeared in the December 6, 1982 issue of *Massachusetts Lawyers Weekly*. Professor Perlin is the Editor of the Lawyers Weekly Rules Service.

Professor Joseph Glannon's article entitled, "The Scope of Public Liability Under the Tort Claims Act: Beyond the Public Duty Rule," was published in 67 Mass. L. Rev. 159 (1982).

The Honorable **John E. Fenton, Jr.**, Justice of the Massachusetts Land Court and Suffolk Law School faculty member, was guest lecturer at the annual Judge C. Edward Rowe Lecture sponsored by the Massachusetts Trial Lawyers Association. Judge Fenton's lecture, entitled, "New Trends in the Law of Evidence," was given at Suffolk Law School.

Professor Valerie Epps recently (January 13, 1983) presented a paper entitled, "The Law of International Sovereignty over Territory: The Falklands/Malvinas Question," at a panel sponsored by the American Society of International Law and the Boston Bar Association's Public International Law Committee.

Professor Bernard V. Keenan recently served as a member of the Massachusetts Bar Association's Task Force on Standards for Admission to Federal District Court Practice. The task force's report was adopted by the MBA Board of Delegates and represents the Association's position concerning a proposal to institute a system of admission requirements to practice before the Federal District Court.

Bernard M. Ortwein recently participated in a panel discussion on legal fees sponsored by the Fee Arbitration Board of the Massachusetts Bar Association. The panel discussion was part of a series of lectures and panel discussions held in Worcester at the Association's 1983 Midyear Meeting.

Professor Clyde Lindsay gave a lecture on Non-Profit Organizations at the Massachusetts Bar Association's 1983 Midyear Meeting. Topics addressed included considerations of choice of form; problems of internal governance; duties/liabilities of directors/officers; property and other rights of members and contract, tort and criminal liabiltiy.

Professor Marc D. Greenbaum was among the guest speakers at the Massachusetts Bar Association's Conference on Employment Discrimination held at Anthony's Pier 4 on January 20, 1983.

A lecture, entitled, "Environmental Law: An Introduction and Overview" was given by **Professor R. Lisle Baker** as part of the Spring Lecture Series sponsored by the Environmental Law Society of Suffolk Law School.

Judge Harold Lavien, Bankruptcy Judge of the District of Massachusetts and adjunct faculty member at Suffolk Law School co-authored an article entitled, "The Eclipse of Massachusetts Tenancy By the Entirety and A Reappraisal of Homestead As They Relate To Bankruptcy" which appeared in the *Massachusetts Law Review*, (Vol. 67 No. 4).

Obituaries

William M. Bagley, an attorney for 50 years and a 1933 Suffolk Law School graduate died recently. He maintained a general parctice until the time of his death in East Boston and in downtown Boston on 6 Beacon Street.

Joseph L. Sweeney Sr. (Class of 1926) died recently. He was 81. He was the retired president of the food brokerage firm of Barclay, Brown and Jones. He served for many years on the board of advisors of Boston College's School of Management and was also an incorporator of the Phaneuf and Cardinal Cushing Hospitals in Brockton.

Joseph M. Murphy, a graduate of Suffolk Law School died on February 25. He was 86. He was past president of a family business, the Boston-based New England Importation Co., a food distributor to restaurants and hotels. He retired as chief claims adjuster for the MBTA in 1961 after 43 years of employment.

On March 5, **Joseph W. Buckley** (J.D.'25) died. A lifelong resident of Concord, Mr. Buckley was an attorney for nearly 60 years.

Paul R. Boucher, 40, died recently in Virginia. A native of Cambridge, Massachusetts, Mr. Boucher served as a lawyer for several government agencies including the Justice Department and the Small Business Administration. He graduated from Suffolk Law School in 1969.

Raymond Fitzgerald (J.D.'26) died at the age of 94. Mr. Fitzgerald was former Deputy Commissioner of Education in Massachusetts.

Judge **Vincent A. Mottola**, a 1923 graduate of Suffolk Law School died March 15. He was 89. Born in Grottaminarda, Avelino, Italy, he came to the United States in 1910 with no money in the steerage compartment of a ship at the age of 16. He later became a special justice in the Boston and Newton Municipal courts and ran unsuccessfully for Congress against the late James Michael Curley in 1942.

William F. Walsh, a Boston public school teacher for 43 years, died at the age of 86. A 1924 graduate of Suffolk Law School, Mr. Walsh taught briefly at Boston English High School and then at High School of Commerce. He taught at Roslindale High School until his retirement in 1962.

John J. Bohan, a retired Air Force colonel and 1939 Suffolk Law School graduate died recently. He was 78. A veteran of both World War II and the Korean conflict, Mr. Bohan served as an intelligence officer in England, France and Germany and was recalled to active duty in the Judge Advocate's division of the Air Force.

Edward A. Costello, a 1929 graduate of Suffolk Law School recently died at the age of 81. Costello served as the *Boston Globe's* police reporter for 46 of his 55 years with the newspaper.

Melvin J. Louison, 57, prominant Brockton attorney and 1951 graduate of Suffolk Law School, died unexpectedly March 16. He was a senior member of the law firm of Louison, Witt and Hensley in Brockton. Long active in Brockton civic affairs, Mr. Louison was chariman of the board of trustees of Massasoit Community College, Brockton, where he taught law. He was also an unsuccessful candidate for mayor of Brockton in 1971.

International Moot Court Team

The team of Suzanne Riches, Raouf Abdullah, Carl Rosenbloom and Beth McIntosh recently defeated teams from Boston University, Yale Law School and Harvard Law School, before losing to Boston College by a mere two points in the semi-final round of the International Moot Court Competition. The team however, received an award for submitting the best brief.

Donahue Lecture Series

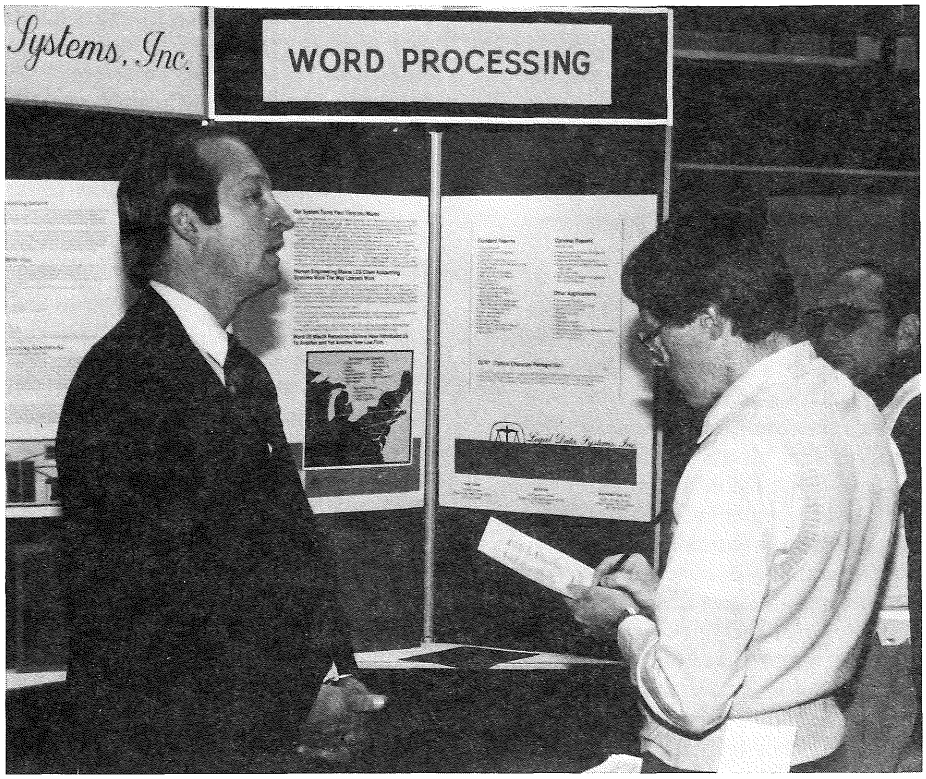
The Donahue Lecture Series, instituted in 1980 by the Suffolk University Law Review to commemorate the life and work of the Honorable Frank J. Donahue, a former faculty member, trustee and treasurer of the law school and Suffolk Law School graduate, presented the eighth through the tenth of its lectures this Spring.

On February 25, Lawrence M. Friedman, Professor of Law at Stanford University Law School presented the eighth lecture entitled, "Exposed Nerves: A Century of American Legal Culture."

Professor Friedman received his A.B., J.D. and L.L.M. from the University of Chicago. Known as a specialist in both United States Legal History and relationships between legal systems and their societies, Professor Friedman has authored several award winning books and has published over 60 law related articles.

The ninth lecture entitled, "The Doctrine of Standing As An Essential Element of the Separation of Powers," was given by Antonin Scalia, Judge for the District of Columbia of the United States Court of Appeals on March 28. A noted author, Judge Scalia has published over 15 law review articles in the area of Administrative and Regulatory Law. He also served as Editor of *Regulation Magazine* and has acted as a consultant to various state and federal regulatory agencies including the Federal Trade Commission and Federal Communications Commission.

John E. Nowak, Professor of Law at the University of Illinois Law School lectured on April 15. The tenth lecture was entitled, "Resurrecting Realist Jurisprudence: The Class Bias of The Burger Court." Nowak received his B.A. degree from Marquette University and his J.D. from the University of Illinois Law School. After serving as a law clerk to Justice Walter V. Schaefer of the Illinois Supreme Court, he returned to the University of Illinois to teach. His speciality is Constitutional Law.



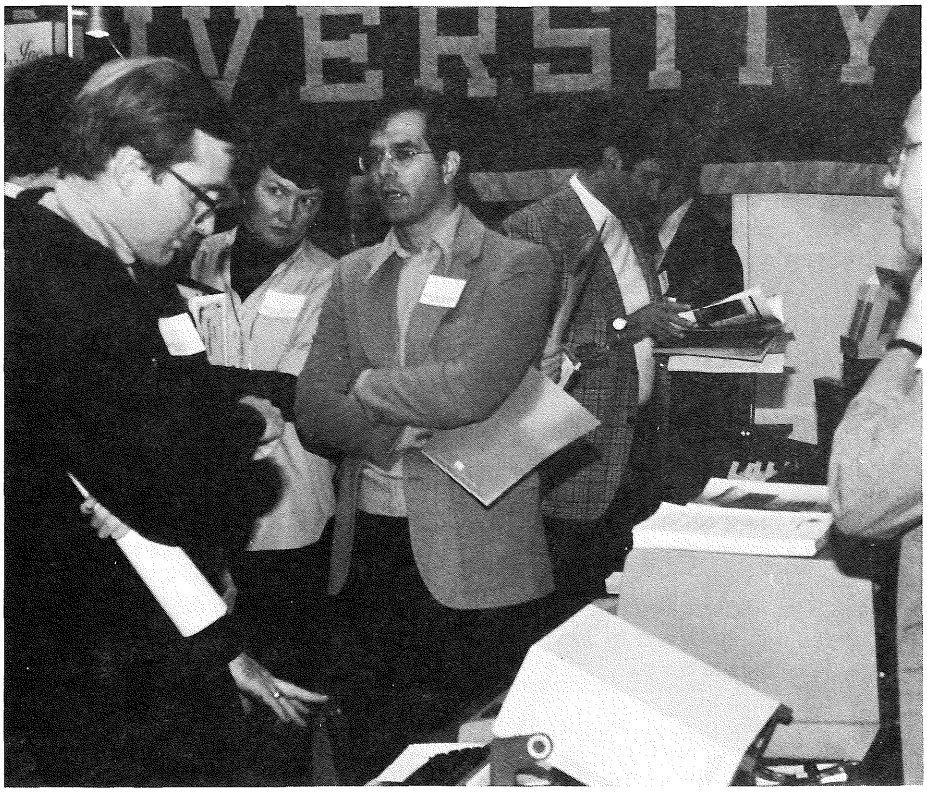
Twenty computer firms participated in the law and the computer workshop sponsored by the Center for Continuing Professional Development of Suffolk University Law School earlier this year.

BALSA Alumni Dinner

The Suffolk Law School chapter of the Black American Law Student Association (B.A.L.S.A.) recently held its First Annual Alumni Awards Dinner at the Parker House in Boston to honor the achievements and contributions of two black graduates of Suffolk Law School.

Henry E. Quarles, Sr. (J.D.'28) was honored for over fifty-four years of service to the urban and legal community. Considered to be the "grandfather of minority attorneys" in Massachusetts, Mr. Quarles received citations in recognition of his many years of service from the Massachusetts House of Representatives and Senate, the Boston City Council and the Governor of Massachusetts. He presently works in the Boston Junvenile Court.

Henry Owens (J.D.'68), a well-known civil rights activist, was also honored for his outstanding contributions to the legal community.



QUOD NOTA

Quod Nota is Latin for a reporter's note in the old books, directing attention to a point or rule. We would like to direct your attention to this compilation of quotes and anecdotes depicting, if not belaboring, the myriad of players embraced by the law.

A confused, but apologetic intruder sawed his way into a doctor's office and left a note on a scratch pad that said, "Sorry, wrong building, Doc."

Dr. Theodore Kocak learned of the break-in after his nurse, Gayle Robinson, arrived at the office at about 8 a.m. and found a neatly cut 1-by-2 foot, rectangular hole in the hallway floor.

Robinson also discovered the intruder's note centered on Kocak's desk. Sawdust and bits of carpet from the floor were tracked along the hallway and into the various examining rooms. But nothing was reported missing from the office, "not even an aspirin," she said.

"I came in and saw that in the floor," Robinson said pointing to the gap. "I didn't know what to think. My first thought was break-in, but then I started thinking that some repairman had been here to fix the heating system or something."

Robinson said she questioned the office's heating company, the beauty parlor next door and the landlord—and nobody had a clue.

— *Associated Press*

Ron Broyles faces trespassing charges for his 18-hour climb to the top of the 993-foot Texas Commerce Tower in Houston. Broyles, 29, said he would have been surprised if the charges had been dropped because, "I'm not above the law." Then he said, "Pardon the pun." Sorry Ron, the pun is unpardonable.

— *Boston Globe*

Steve McPeak and his bride of three days, Carley Bliss, were married atop a 750-foot high cable spanning the Colorado River and spent their first night together in a double sleeping bag dangling from the wires. The next morning, Mr. and Mrs. McPeak descended from their perch, only to be met by federal agents, who charged the pair with trespassing and disorderly conduct and took them to the federal facility at the North Las Vegas jail. McPeak was ordered held without bail, while his bride remained in custody on $1000 bond. What a honeymoon!

— *Boston Globe*

The Humane Condition: A Bark Worse Than A Dog's Bite

Forty-five years ago, A. Douglas Thompson was bitten by Gertrude Jamison's dog and turned the mutt over to the humane society. The animal was returned to the Chattanooga, Tennessee woman, but ever since the incident, she has called Thompson as often as 15 times a day to harass him. Four months on a penal farm and a court-ordered padlock on her phone have not stopped the woman, now 84 years old.

"She's gotten that lock off the phone and she's gone hog wild again," says Thompson. "She used to belch out vulgarity. She's a rascal, I tell you."

Thompson, who was a 16-year old newspaper carrier in 1937 when the incident occurred, has taken Jamison to court often. Most recently, Judge Russell Hinson suspended a six-month term in a workhouse when Jamison pleaded guilty to harrassment and promised to stop bothering Thompson. Hinson still ordered her phone locked.

— *Student Lawyer*

Lawn Chair Pilot in Legal Dogfight

On July 2, Larry Walters tied 42 weather ballons to his aluminum lawn chair and rose 16,000 feet into the sky. Now he faces $4,000 in fines from the Federal Aviation Administration.

The 33-year old truck driver from North Hollywood, California, was able to land his contraption by shooting some of the ballons with a pellet gun. But he'll need more than a safe landing to bring him out of his legal tailspin.

"If the FAA was around when the Wright brothers were testing their aircraft, they would never have been able to make their first flight at Kitty Hawk," Walters said.

What's more, who ever heard of a law forbidding lawn-chair flight?

— *Student Lawyer*

Jail Sweet Jail

Isa Mae Lang, 93, is being forced by California state officials out of the home she has lived in for 39 years. Although her lawyer says she will suffer relocation trauma, the officials have their reasons: Lang, convicted of murdering her landlady in 1935, is being paroled. The place she has called home all these years is her brightly decorated prison room at the California Institute for Women.

"It's not like we will be putting her out on the street with nowhere to go," says prison board member Loretta Collier. The institution will be sending Lang to a rest home near the prison so that she can maintain her prison friendships.

But Lang, the state's oldest inmate, did not even attend her own parole hearing because she did not want to be seen by the "do-gooders trying to get me out of this place."

Her attorney, Michael Gunn, was "absolutely flabbergasted" by the board's decision. He says he might appeal, but he does not know on what grounds.

— *Student Lawyer*

Corporate Alimony

A company has no obligation to 'monitor and safeguard' the marriages of its employes says the Washington State Court of Appeals. The ruling came in a suit filed against the United States Steel Corporation by a Montana Woman who said that her husband divorced her to marry another woman after he was transferred to Seattle by the company.

In 1980, Veronica Parker brought an alienation of affection action against both the other woman and United States Steel. The suit alleged that the "corporate employer knew or should have known of the nonmarital relationship, negligently failed to interfere, negligently failed to inform Veronica of the relationship and failed to enforce a company policy of discouraging such relationships."

The court ruled that, "United States Steel owed no duty to employees' spouses to monitor and safeguard their marriages and therefore could not be held liable in neglience under any set of facts."

— *New York Times*

The Advocate Index Volumes 1 through 14 (1968-1983)

Faith M. Lane, Law Librarian
Herrick & Smith, Boston;
Editor-in-Chief (1982-83) *The Advocate*

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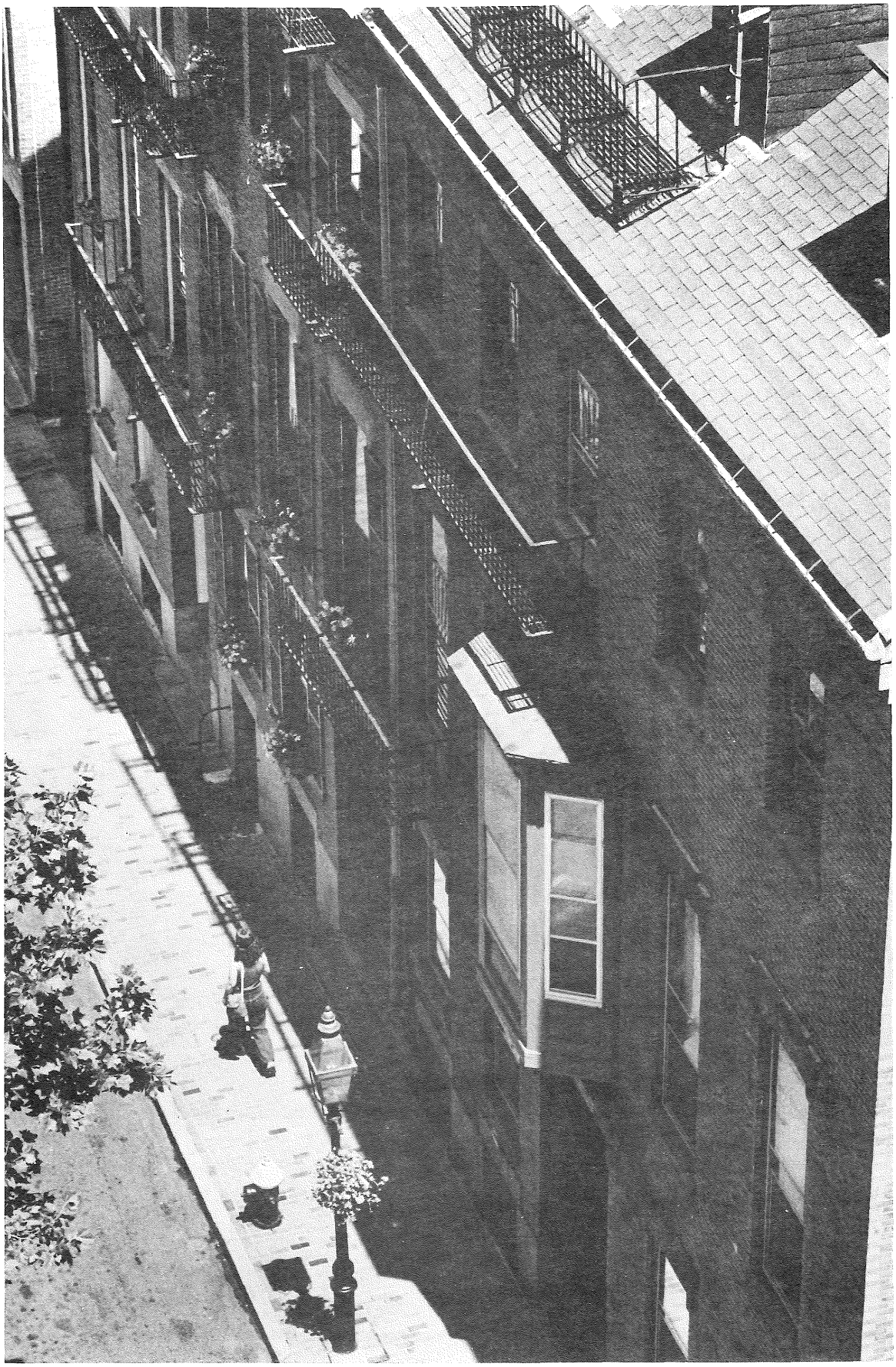

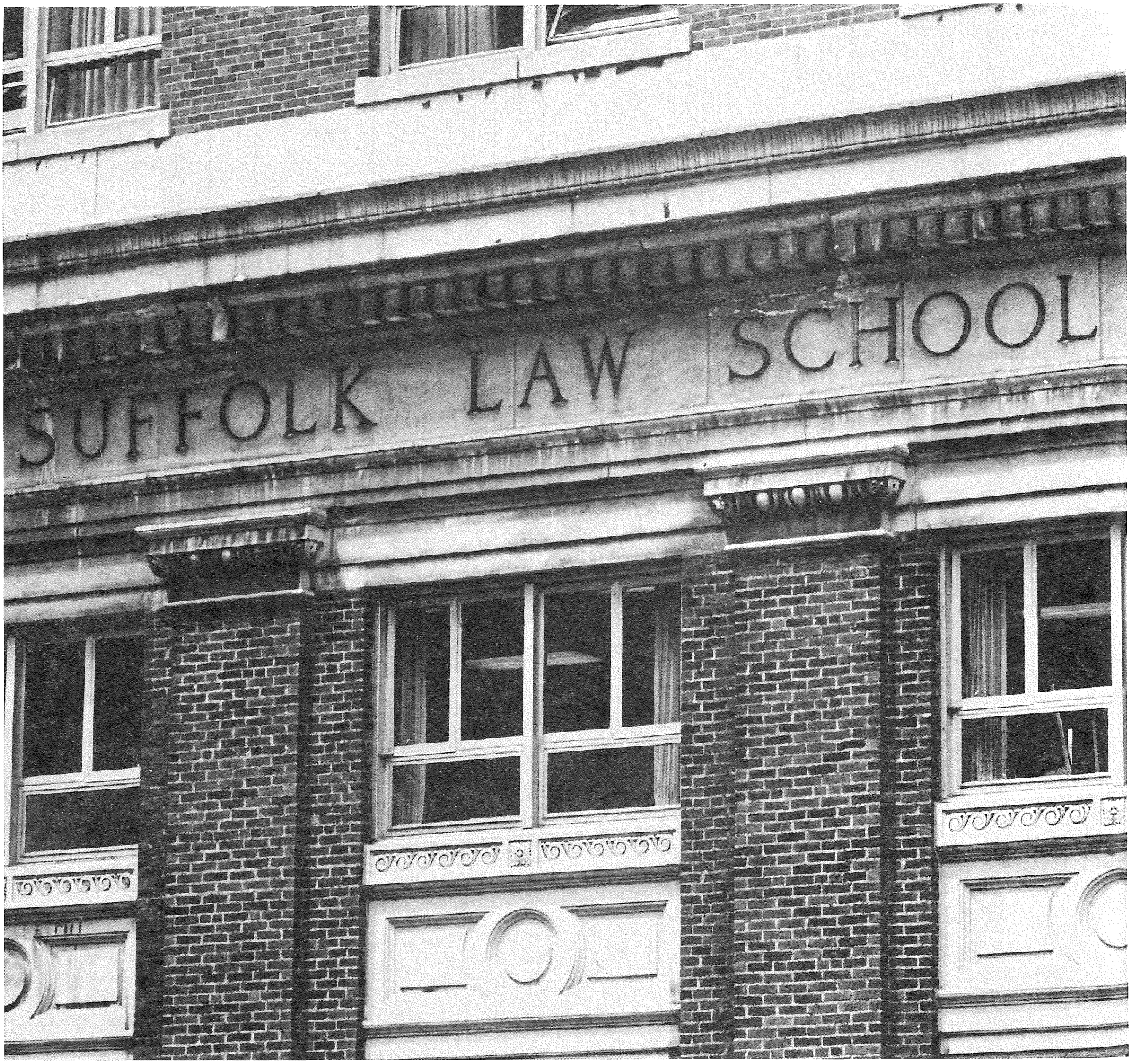
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