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COMPUTERIZED LEGAL RESEARCH— AN ARRIVAL

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The purpose of this article is to make available to interested members of the Oklahoma Bar a brief, non-technical introduction to the workings of a computerized legal research system, and my observations with regard to the present state of the system.

The field of computerized legal research can no longer be described as a promise of the future—the fact is that the field has presently come of age. Computerized legal research systems which not only meet, but exceed, the claims and promises made by their designers are in daily use in many areas of the nation. Most authorities agree that "Lexis," the system designed and built by Mead Data Central, Inc., in conjunction with the Ohio State Bar Association, has come to predominate the field. This enviable position is due to a sound decision made in the concept and design stages of their program to utilize analysis to design a system for the user-attorney who does not have a technical background. As a result of the interest I expressed in learning more of the details of Lexis operation, Mead Data Central, Inc. arranged a demonstration during which I was allowed to use the system exactly as other users do.

However, prior to giving an example of how the system functions in day to day operations, a description of the physical appearance of the system and a non-technical explanation of its workings will be instructive. Physically, the system was primarily engineered and designed for simplicity of operation and ease of usage. As it appears to the user, the Lexis System consists of a television screen, a typewriter, and a hard-copy printer, arranged to form one console. Once the user

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is familiar with the few instructions, easily comprehended by any layman, necessary to put him in contact with the system, he then communicates with the system by typing a plain language instruction on the keyboard. The instruction is simultaneously displayed on the screen for purposes of error detection. When the user has completed typing the instruction the system executes it and displays the requested information on the screen. The user will see either the number of cases containing the word or words searched for, or the actual textual portion of a case containing one or more of those words. In either event, the response, like the instruction, is in plain language. If the user wishes to preserve the information displayed, he need only depress a key on his console and the contents of the screen, in addition to the complete cite for the case, will be reproduced by the hard-copy printer at his console.

Technically, the Lexis System combines three distinct features, none of which are technologically innovative per se, but which, in combination with each other, present what appears to be an optimum with regard to effectiveness, utility, and simplicity of operation for the layman attorney. These separate features are: (1) A full-text search base; (2) The ability to conduct a continuing or ongoing dialogue with the system; (3) A full-time sharing system.

A full text search base means that every case within the dates and jurisdiction selected is read in its entirety into the computer and constitutes a library. Several libraries are presently available. They include the complete federal tax library, recent Supreme Court decisions, securities cases decided recently, a complete Ohio state library, and limited libraries from New York, Texas and Missouri. The computer then indexes each significant word of the opinion. By "index" I do not mean that the words and phrases are indexed in accordance with any predetermined legal topic, but that a pigeonhold is designated within the memory of the computer for every significant word or phrase found in any of the cases within that library. This pigeonhold will contain the cites to all cases in that library which contain that particular word, or any variation thereof, such as plurals. By "significant" word, I mean *every* word of the opinion save those hundred or so common words such as "to, the, but, for, and," etc., that are without legal significance in and of themselves. The importance of this for the user is to modify somewhat his traditional search techniques, in that his search is now directed more by key words than by legal topics. As a consequence, for the first time the attorney is free of the indexer, a third party whose task

it has been to index each legal opinion under its traditional topic heading. Presently, an attorney faced with a given factual situation determines a general problem area and proceeds to the encyclopedias, utilizing initially the index method. As a direct result, the user is wholly dependent upon the judgment of the indexer, and if there exists a significant difference in the interpretation of the concepts involved, the user may fail to find the case directly in point. A frequently cited example involving Ohio law is as follows:

> Mr. Jones parked his car on a downtown Toledo Street and left his key in the ignition while he did some shopping. When he returned, the car was missing. Mr. Jones shortly discovered that his car had been stolen and was involved in an accident when the thief ran a red light, and seriously injured a pedestrion. Mr. Jones, informed by the police that he had violated a local ordinance by leaving his key in the ignition, seeks assurance from his attorney that he is not liable to the injured pedestrian.

An Ohio attorney, concerned with this case, would proceed traditionally to "Negligence" in *Ohio Jurisprudence.* A thorough search of the following subtopics would fail to reveal a case decided in the Supreme Court of Ohio which is "on all fours": *Violation of Statute, Ordinance, or Administrative Regulations; Proximate Cause; Intervening Cause;* and *Imputed Negligence.* Had our Ohio attorney's reasoning been more closely aligned with that of the indexer, he would have found the case in point under the general subject heading *Automobiles,* subheading *Liability for Injuries and Damages From Operation of Vehicle,* and sub-sub heading *Vehicle Left Unlocked.* Lexis, rather than computerizing the traditional index method of legal research, attempts to align the factual situations through the use of key words. The underlying premise is, of course, that similar factual situations will generate similar resolution of the legal issues involved. Thus, the modification of old habits spoken of above, is not overly significant, but consists only of picking key words that are a part of the fact situation, rather than deciding what general area of the law will apply to the facts presented and then researching the law in that area.

The second feature allows for a continuous give and take between the system and the user and is, perhaps, best explained by way of illustration. Prior to the illustration, however, a brief overview of the instructions available to the user will be necessary for complete understanding. All instructions to the system are in plain English, and consist entirely of key words for which the user wishes to search, sepa-

rated by the connectors, "AND," "OR," "BUT NOT" "W/N" or "PRE/N." These connectors delineate the relationship between the key words for which the user is searching, and should not be confused with the lower case "insignificant" word of the same spelling, etc. For instance, AND requires that each word or phrase on either side of that connector appear in all cases the system reports to the user. Similarly, OR requires that either or both of the words on either side of the connector appear in each such case. The connector, W/N, is a functional equivalent of the connector AND, but adds the further requirement that the two words on either side of the connector be within "N" words of each other. PRE/N serves exactly the same purpose, with a further refinement that the word or phrase preceding this connector must occur in each reported case before the word following this connector. The connector, BUT NOT, requires that each reported case contain the word preceding it, but not the word following it. These connectors can be used in combination with one another to achieve any desired format of search analysis.

To continue with our illustration, assume the same facts as presented in the Ohio case, above. The user might begin a search by choosing one of several libraries available to him, in this case that containing the decisions of the Ohio Supreme Court. He would then ask the system in plain language, how many cases it had containing the word "automobile" or any synonym thereof. His instruction would consist of the word "automobile." The system, again in plain English, would respond that there were 1,985 such cases, and inquire of the user whether he would like to read any or all of them. The presentation which the user would receive on the screen, were he to choose the first case, would be that segment of the case containing the word he had chosen, "automobile", plus as much more of the textual opinion as would be reasonably necessary to retain the reasoning of the case in context with the key word searched. However, the user would realize that this is entirely too many cases to consider scanning, thus he might well request that the system modify a search to pick those of the previous cases which also contain the word "theft," which word the user may have decided upon, in addition to "automobile," through having scanned several of the previous cases. Thus, the user's instruction would appear as follows: "automobile AND theft". This would narrow the field to approximately 300 cases. Considering such a large number of cases, further modification of the search request is certainly in order, and the direction the modification would take would probably

be prompted by information gathered by scanning several of the cases presented through the previous search. This time, the user might include the phrase "violation of an ordinance or statute," yielding about 100 cases, and conclude to finally modify his instruction by including all additional cases containing the words "key AND or W/4 ignition," yielding three cases. This figure represents a convenient number of cases to scan, and, not surprisingly, one of them is the aforementioned case "on all fours."

The time sharing feature allows all users to utilize the system simultaneously, with the result that no particular user should ever have to wait in line for the system to become available to him.

In using the system myself, I was pleasantly surprised at the ease with which my traditional training in legal research generalized to enable me, in approximately one hour, to adapt and feel confident and comfortable while using the system. Of course, I make no claim to becoming fully a master of all the subtleties of which the system is capable, in such a short period of time, but I do think it necessary to reemphasize my belief that any practicing attorney could become competent in the use of this system within two hours, notwithstanding the fact that he may never before have so much as seen such a system, or even a computer.

The primary advantage of the system over traditional methods of legal research is the sheer, brute speed with which accurate and complete legal research can be done. Not being fully competent in the use of the system, it is, perhaps, inappropriate for me to venture even a guess as to the probable time savings which proper utilization of the system may make possible. Nonetheless, the reduction in research time by a factor of four, with at least an equivalent degree of completeness and thoroughness, is a conservative estimate. A high degree of familiarity with the system should produce even better results. Secondary advantage is the exclusion of the middleman or indexer, whose role is so important in traditional legal research. Such an exclusion will free the practicing attorney from the very real fear that his analysis of a new problem may not be fully in agreement with that of the indexer, with a consequent possibility that an attorney may miss an important case in point.

Of the serious criticisms leveled at the system, technological advances in the state of the art have dispelled all but two, the first of which is cost. Cost is presently running approximately $80 per hour for system use, with a certain monthly minimum. Considering the time

savings alluded to previously, the system should more than pay for itself, provided minimum usage can be met. However, the question has been raised, and appropriately so, that in view of the financial treatment given other research aids, such as libraries, is it fair to expect that the system should pay its own way? Certainly most firms do not require direct income from their library sufficient to meet the annual upkeep cost of those libraries as a precondition to maintaining that library. Logically then, why should this system, certainly the more efficient of the two, be required to be financially self-sufficient? Theoretical arguments aside, those firms presently utilizing the system have indicated no real difficulty in this area, most preferring to bill for the use of the system exactly as they would for the assistance of another attorney on the particular case.

The second important criticism, from the viewpoint of most state practitioners, including Oklahoma's, is the lack of any library available on the system which includes his state's decisions. Working state practice libraries are available only for Ohio, Texas, New York and Missouri. Realistically, however, it is only a matter of time until such libraries do become available, with the length of time being a function of the interest expressed by state attorneys and state bar associations.

Finally, I would like to say that it is my distinct impression that legal research through the use of computers has come of age. What was for so long only dreamed of in the minds of a few is now a practical working reality. However, I do not wish to overstate the case or to be understood to have said that a console in every office is only a year or so away. Minimum monthly costs still make this sort of usage financially impractical. However, the time is not far off when the system with its complete federal tax library will be at the disposal of the Internal Revenue Service. Under these circumstances, can the larger firms in Oklahoma which have a substantial federal tax practice, afford to be without the advantage this system has to offer?

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