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KENTUCKY'S MACHINE-READABLE CHALLENGE

Richard N. Belding and Larry G. Forston

For many reasons, the history of the management of records in machine-readable form in Kentucky state government has been short and sporadic. The Public Records Division of the state's Department for Libraries and Archives has long been aware of problems related to appraising and preserving machine-readable records (MRR), but lack of staffing and expertise has forced it to postpone confronting these issues. The widespread use of MRR by state agencies, however, has made it impossible for the division to assist them with appropriate records management and archival procedures without dealing in some way with these records.

Recently, the division got word that it had received support for an MRR project from the National Historical Publications and Records Commission (NHPRC). The project's goal is to develop an MRR program for Kentucky state government which will identify, describe, schedule the retention, and provide for the preservation of records in machine-readable form.

Many records which document state government activity are now being produced in machine-readable rather than in a paper or "hard-copy" form. There is no assurance that this historical documentation is being captured and preserved and, unfortunately, one of the primary descriptive adjectives associated with MRR is "fragile." This fragility is related to the inability of magnetic tapes or disks to meet standards for permanency. Tapes and disks have to be rewound or copied periodically to avoid loss of data and both are subject to damage from magnetic forces. In addition to being fragile, MRR are easily alterable, with little or no indication that
information has been changed. Until now, the lack of archival and records management input into the management of these MRR has led to the likelihood that historically significant documentation, easily captured prior to the advent of MRR, is now being lost, altered, or destroyed.

Currently, no standard methods or procedures for the acquisition, appraisal, or distribution of these records exist in Kentucky state government. Because of the proliferation of computer-generated records created and/or maintained by state government agencies—a situation which is likely to increase with the spread of distributive processing capacity—the ability to manage these records effectively is almost nonexistent. The only kind of management available is of data as it is used in the daily business of a state agency. This management is provided by the state's Department of Information Services (DIS), the central computer agency of state government, with no consideration given to the preservation of a record because of its enduring value, for administrative purposes or historical research.

With the development of standards and procedures, current machine-readable record systems will be better managed and newly created systems will be developed in such a way as to provide for the proper management and preservation of information being created. Kentucky's new project is designed to go beyond the goals of previous state government MRR projects. It will build on the findings of the benchmark Wisconsin MRR project and, in part, will direct its efforts toward implementing the recommendations of that project. It will also make use of the Oklahoma Department of Libraries' preliminary report, "Planning and Implementing a Program for Managing the Machine-Readable Records of Oklahoma State Agencies," as an important resource document in the project's planning stages. While the Wisconsin program provided requirements for an MRR archival program, the Kentucky project will also develop data on legislative and budgetary needs.
for establishing a continuing program.

The project's coordinator will be a person with electronic data processing (EDP) experience, probably from DIS, and existing Public Records Division staff will supply the archival direction of the project. This will serve to increase each agency's awareness of the others' functions, procedures, and requirements, and lay a foundation for continuing cooperation. In addition, this project will rely more heavily than that of Wisconsin on records management as a necessary means to preserving and making MRR accessible.

In the ensuing sections, this article will review the development of machine-readable records management in Kentucky state government, examine the role and interests of key groups, and discuss the planning, strategy, and goals of this project.

Managing Machine-Readable Records: Kentucky's Experience in the Last Decade

Kentucky's Public Records Division, in managing MRR, has progressed as much through evolution as through a fixed plan. Through the routine identification, description, and appraisal processes of gathering information for records retention schedules and through agencies' requests for technical assistance in dealing with automated records, the division became aware of the size of the MRR problem and the significance of this new method of collecting, manipulating, and preserving information.

In the late 1970s, division staff began to include computer-related records on the records retention schedules of some of the larger agencies of state government. Because of a lack of in-house expertise and experience with these records, the appraisal and ultimate retention of these records was based largely on recommendations from agency EDP personnel, with less-than-usual regard for the archival principles used in appraising records in hard-copy form. It soon became apparent that this method of records management was unacceptable.
As the problem grew, division staff began to seek ways to increase their skill in dealing with this subject. Current literature available on MRR was reviewed more thoroughly, and staff took advantage of workshops offered in the subject. They also began to view agency EDP personnel as one resource in the decision-making process, rather than as the one with the last word. Activity throughout the division began to reflect a heightened response to a growing problem in state government. To meet this new challenge, the division began:

Collecting information, through its normal scheduling procedures, on the use and retention of MRR. Records Description and Analysis forms, completed for each record series as it was scheduled, were developed in early 1983. These showed whether records being scheduled were in machine-readable form or were output from a record series maintained in machine-readable form.

Working with the state's Legislative Research Commission, the administrative arm of the state legislature, to use existing Description and Analysis forms to create a list of computer output records present in a small number of agencies. This list, in turn, can be used to determine where useful data bases are located and to promote additional description and appraisal activity.

Accessing, through its telecommunications capacity, major statewide data bases, including the Kentucky Economic Information System (KEIS) and the Automated Legal Text Entry and Revision data base (ALTER), used in researching Kentucky statutes.

Acquiring hands-on experience with the management of MRR through the development of automated systems to handle the Kentucky Guide Project data base and bibliographic control and indexing of
Kentucky state publications.

Attending seminars on the management of MRR, including those sponsored by the Society of American Archivists.

Carrying out extensive research into the admissibility of MRR into courts of law. This research extended not only to other states but to other countries as well. The work was initiated in response to an inquiry from the Department of Social Insurance of the state's mammoth Cabinet for Human Resources.

Sending and receiving data electronically, on a routing basis, to and from such agencies as the Finance and Administration Cabinet and DIS.

The division has worked hard to make state agency records officers and DIS agency contract personnel more aware of each other's presence and of how they can work together to better manage their agencies' MRR. The division's closer cooperation with the Legislative Research Commission has insured that the commission can identify and reach key personnel able to access information created by those agencies. In addition to these actions, important developments have occurred in other areas which will prove valuable to the new project.

The State Archives and Records Commission (SARC) and the Machine-Readable Records Task Force

In June 1983, Kentucky's State Archives and Records Commission (SARC) formed a Machine-Readable Records Task Force to study the problems associated with the identification, retention, preservation, and accessibility of MRR. The task force is comprised of SARC members, staff of the Public Records Division, DIS, and the Legislative Research Commission, and representatives of a number of state agencies which create or use MRR.

During its first six months, the task force
studied the nature of records in machine-readable form, the problems inherent in managing these records, and previous archival studies of MRR. The task force also worked with the Special Subcommittee on a Statewide Information System during the 1984 legislative session to insure that the authority of the SARC to set legal retention periods for public hearings, regardless of format, was not diminished or compromised. Through the interaction of these two groups, the ideas of seeking grant support to plan and begin implementation of a state government MRR program developed. The task force continues to meet in order to keep abreast of new developments in Kentucky and other states which are likely to have an effect on the management of MRR and records systems and to advise the SARC in this area.

The Special Subcommittee and Machine-Readable Records Legislation

In July 1977, the Kentucky General Assembly appointed a Special Subcommittee on a Statewide Information System to study the feasibility of creating, within state government, a computerized system to improve the transfer of financial information and public records between agencies. During its early meetings, the subcommittee focused on monitoring major statewide projects undertaken by DIS, reviewing the administration of computers and computer programming in state government, examining computerized information systems operating in other state legislatures, and assessing the potential for legislative access to statewide data bases.

The enormous problem of rationally managing MRR and records systems throughout state government came to the attention of the subcommittee in 1983. One of its major concerns was the difficulty legislators and the Legislative Research Commission often encountered in accessing information which state agencies had in machine-readable form. In their efforts to obtain such information, they became aware of serious shortcomings in the management of state government information resources in machine-readable form.
During the sixty-day 1984 legislative session, the subcommittee was successful in securing passage of three computer-related bills. One concerns the security of computer-generated records. Another addresses access via computer to state agencies' financial information by the Legislative Research Commission. The third bill created a Kentucky Information Systems Commission to develop and implement a program for the identification, maintenance, and transfer of computer-generated information in state government. This last piece of legislation addressed the interests of both the Public Records Division and the subcommittee. This common interest led to the cooperative relationship between the subcommittee and the division necessary to deal with MRR problems on a government wide basis.

The new Kentucky Information Systems Commission is advisory in nature and makes recommendations to the governor concerning the purchase of computer hardware and software, the development of statewide information systems, and other computer-related concerns. The statute authorizing the commission's activity clearly indicates the responsibility for determining retention requirements for MRR continues to rest with the State Archives and Records Commission, which is the principal advisory body to the Public Records Division.

The Department of Information Services (DIS) and the Data Dictionary Project

Until 1981, planning and development of MRR and machine-readable record systems was in the hands of individual state government agencies and was haphazard at best. Because this responsibility was not centralized, diverse methods of systems development were used, with little concern for uniformity. Realization of this fact led to the creation of DIS.

Unfortunately, this centralization of computer expertise and authority did not have the funding, staffing, or time to correct the errors of the past or even to identify the problem areas. DIS is geared
towards the development of information systems and the flow of information as it is used in daily operations of the user agencies. It also advises, recommends, and approves all purchases of computer hardware and software by state agencies. Because of the mandated mission of DIS, however, little consideration has traditionally been given to the preservation of data bases or computer-generated records for the purposes of future historical research.

As already indicated, DIS was formed to be the central data processing service agency for the executive branch of state government. The agency receives a small appropriation, with remaining funding derived from receipts for services rendered to client agencies. Systems development, systems analysis, programming, and use of the state's central computer make up the majority of those services. Until now, DIS has had inadequate funding to develop a data dictionary and has been unable to find an agency able to underwrite its development. A data dictionary relates exclusively to MRR; to the hardware and software systems used to create and maintain them; and to the documentation which support their creation, maintenance, and use. It is a dictionary (or encyclopedia of sorts) which defines the records themselves, down to the field level.

To begin work on a data dictionary, DIS purchased IBM's "DB/DC Data Dictionary" software package and integrated the collection of the required information into their system development procedures. As this has occurred only recently, the dictionary, in its current form, contains only limited information on the most recently developed systems. Data has been collected under the supervision of the systems designers, so the dictionary currently contains only a portion of what the Public Records Division views as needed information and this is usually in a form so technical as to be useful only to the compilers. Because most DIS staff must be assigned to receipt-generating projects, few have been available to work on the data dictionary project. This has
occurred despite the fact that such dictionaries are widely viewed by government agencies and private corporations as being essential to optimizing the performance of information processing systems, which are often extraordinarily complex.

**Purpose and Goals of the State Government MRR Project**

Kentucky's new project plans to lay a solid base in standards, methods, and procedures for an MRR program that will be applied long after the project is complete. Central goals include the development of procedures for the identification of MRR, surveying and describing MRR, drafting principles upon which to base retention decisions, methods and responsibilities in retaining records in machine-readable form, and methods for assessing records in machine-readable form for future research purposes.

An interim report on the findings of the project will be produced to assist the Kentucky General Assembly's Special Subcommittee on a Statewide Information System in drafting legislation. Such legislation will be concerned with the management of, and an ongoing program which provides for access to, machine-readable information in state government. The accessibility and preservation of computer-generated information interest this subcommittee, both from the perspective of increasing efficiency within the state's executive branch and of accessing information for research purposes, whether by the legislature or its constituency, the general public.

The Legislative Research Commission plans to participate directly in the project in the same manner as executive branch agencies will. With data bases and MRR of their own, they look forward to being included in the data and to operating under the same guidelines developed for executive agency MRR programs. Their participation in the project is expected to promote the exchange of information between agencies of the executive branch and the
legislature. Among the data bases which the Legislative Research Commission currently maintains or is interested in maintaining are the Kentucky Revised Statutes, bill status information, and bill summaries.

Legislative interest in this project will provide an excellent and, perhaps, uncommon opportunity for the executive and legislative branches of Kentucky state government to cooperate in reaching a common goal. That both branches of government recognize the scope of MRR problems in state government only serves to underline the need for implementing an ongoing machine-readable records program after the grant project's completion.

The project's final report is expected to address methods, procedures, and forms necessary for the collection of information from agencies for describing, appraising, retaining, and accessing machine-readable records. The report will serve as a blueprint for the Public Records Division as they develop and implement a program for managing the state's MRR. Another goal of the project is to improve the education and training of division and state agency personnel in the methods developed above, permitting the program to have proper staff support once the project ends and an ongoing program is established.

Completion of a data dictionary is a key feature of this project and vital to its success. Information contained within the dictionary will identify systems and data bases currently being used by state agencies in the state's central computer system. Information included will be as general as the titles and descriptions of entire systems and as specific as the individual data elements that make up the data bases used in these systems. The data dictionary will be the basis for identifying MRR throughout state government. The dictionary will not determine the historical significance of any records, but will collect vital information essential to records appraisal and serve as a starting point for that activity. It will also contain information on
the retention periods of records. The Public Records Division staff will furnish this information to the dictionary once appraisal decisions are reached. Information necessary for the preservation of historically significant records and their transfer (or, at least, the transfer of control over those records) to the division will be another function of the dictionary. Once completed, the dictionary will greatly facilitate information sharing between different agencies and branches of government and substantial cost savings for agencies currently duplicating information collection efforts of other agencies can be projected.

Kentucky is coming to grips with the problems of managing and preserving state government MRR well after the game has begun. The earlier work of other state archival and records management programs, as well as that of corporate and other nongovernmental programs, will be a valuable guide in the project's work. The broad-based commitment of the Kentucky Department of Information Services, of the state's General Assembly and its Legislative Research Commission, of the Department for Libraries and Archives' Public Records Division, and of other executive branch agencies, already promises a certain consensus of the gravity of the problem and the urgency for its solution. All involved hope that publication of the project's final report will not be the final act of this program, but will serve as a "generic" document of wide use to other states developing programs to manage MRR.

NOTES


2 Samuel Sizer, Planning and Implementing a Program for Managing the Machine-Readable Records of Oklahoma State Agencies (Oklahoma City: Oklahoma
Resources Branch, Oklahoma Department of Libraries, February 1984).