

Background Paper

A Decade of Development: Educational Programs for Automated Records and Techniques Within the Society of American Archivists

THOMAS ELTON BROWN

Abstract: During the 1980s, the Society of American Archivists (SAA) task force and then committee concerned with automation organized a series of seminars and workshops. In doing so, the members evolved a series of curricula based on explicit learning objectives. When they tried to use these curricula to structure the course contents, the idealism of the curricula gave way to reality. This article reviews the development of the curricula and their implementation. It examines the successes and failures of earlier efforts and concludes with lessons to be drawn from these early attempts to train archivists to deal with automation.

About the author: Thomas Elton Brown has been an archivist at the National Archives and Records Administration (NARA) since 1976. He has worked with NARA's electronic records programs for a total of thirteen years and is currently chief, Archival Services Branch, Center for Electronic Records. He has been involved with the SAA task force and committee concerned with automation since 1978. During that time, he has conducted eleven SAA workshops and seminars on automated records. The author is indebted to Bruce Ambacher, Meyer Fishbein, Katharine (Sue) Gavrel, Margaret Hedstrom, Judith Huenneke, Richard Kesner, Glen McAnich, Michael Miller, and John McDonald for reporting on various training programs they have conducted and for providing copies of curriculum materials they have used in those programs. Additionally, Nancy McGovern reviewed and provided thoughtful comments on an earlier draft of this paper.

AS THE PROMOTIONAL MATERIALS for the forty-fifth annual meeting of the Society of American Archivists hyped it, SAA "went back to school" when it convened in 1981 on the campus of the University of California at Berkeley. With a bright, late-summer sun shining on the campus, SAA's council assembled on 30 August in the university's faculty club. That afternoon, the council reviewed a proposed core curriculum from its Task Force on Automated Records and Techniques. After cautioning that the core curriculum should be used to structure the task force's educational programs and not as a standard for other institutions, council endorsed the guidelines for structuring future task force workshops.¹ This marked the first formal endorsement of a common conceptual structure for the educational programs within SAA for automated records and techniques. In the years since, SAA and its Automated Records and Techniques Task Force and the successor Committee on Automated Records and Techniques (CART) have evolved several core curricula and developed several workshops and training programs to implement the curricula.

Although a core curriculum on automation was first endorsed only in 1981, emphasis on the development and implementation of training programs had long been a hallmark of the activities of the Task Force on Automated Records and Techniques and its predecessors. In 1969, the Society of American Archivists established the Ad Hoc Committee on Machine-Readable Records and Data Archives. Within two years, the committee was having extensive discussions on the development of a workshop to educate archivists in computerization and the preservation of electronic records. In 1976, the committee added automated techniques to its mission

and became the Committee on Automated Records and Techniques. The new committee established as one of its four major programs the recommendation of suitable training programs. Yet the major effort in training activities during the early years was the development of an annotated bibliography.²

But the committee soon embarked on the development of an extensive training program. In 1977, at the annual meeting in Salt Lake City, Charles Dollar outlined his views on the appraisal of machine-readable records. The following year, during the annual meeting, the committee sponsored a limited enrollment seminar, "Appraisal of Machine-Readable Records." The program description began, "This seminar builds on the 1977 SAA session on appraisal of machine-readable records."³ The seminar was repeated in 1979 during the annual meeting in Chicago.

The committee continued to wrestle with the question of training activities for machine-readable records. During its 1978 midyear meeting, the committee discussed educational activities at length. While acknowledging the importance of training, the participants expressed uncertainty about the best path to follow. One person hoped to institutionalize or adopt a formal program for training in automation. As the cochair of the committee, Charles Dollar, commented, "Here is the course; here is the curriculum; this meets the needs of archivists."⁴ Despite this interest in institutionalizing training in archival automation, the

²"Annual Report, Committee on Machine-Readable Records and Automated Techniques," 30 August 1976, Meyer H. Fishbein Papers. Washington, D.C.

³42nd Annual Meeting Society of American Archivists. Nashville, Tennessee. October 3-6, 1978, 33.

⁴Charles Dollar to Automated Records and Techniques Committee, "Summary of February 3, 1978 Meeting," 22 February 1978, Records of the Interuniversity Consortium for Political and Social Research, Ann Arbor, Michigan. Hereafter cited as ICPSR Records.

¹"Society of American Archivists," *American Archivist* 45 (Spring 1982): 237.

A Development Timeline: Educational Programs for Automated Records and Techniques within the Society of American Archivists, 1971-86.

October 1971:	Ad Hoc Committee on Machine-Readable Records discusses developing a workshop on automation.
September 1976:	Committee on Automated Records and Techniques lists education as one of four major programs.
February 1978:	Committee discusses "institutionalizing" training programs.
October 1978:	Seminar on appraisal held during annual conference.
February 1979:	Committee discusses the possibility of a two-day workshop on records prior to the 1980 annual conference.
September 1979:	Committee-organized seminar on training programs on machine-readable records presented at SAA annual meeting.
May 1980:	One-day workshop presented at MARAC.
April 1981:	First draft of a curriculum on records proposed to the Task Force on Automated Records and Techniques.
August 1981:	SAA endorses curriculum for records; task force reviews list of proposed educational modules for annual conferences.
April 1982:	Task force agrees on outline of curriculum for techniques.
October 1982:	Task force approves curriculum for techniques; task force uses curricula to propose in-conference workshops on techniques and preconference workshops on records for the following year.
October 1983:	Task force approves expanded curriculum for techniques as the basis of one- and two-day workshops; first preconference workshop held on automated records.
April 1984:	Task force approves core curriculum revised into a format similar to that approved for techniques.
April 1985:	Proposal to publish curricula in <i>ADPA</i> ; first preconference workshop on automated techniques.
October 1986:	Curricula incorporated into single document for publication in <i>ADPA</i> .

committee did not reach a common ground on the course it would follow. A year later, the committee again discussed training programs with the idea of organizing a two-day workshop on machine-readable records. Such a workshop would provide a means to develop a training package in the area of automated records. Although the proposed workshop did not materialize, the committee did organize for the annual meeting in 1979 a limited enrollment seminar to discuss training programs for machine-readable records.⁵ According to the program,

This seminar will review the methods and techniques used in training personnel to handle machine-readable records which are employed by the National Archives and Records Service, the Public Archives of Canada, and the Interuniversity Consortium for Political and Social Research. The seminar will encourage audience participation regarding training needs and will attempt to identify common elements required in such training programs.⁶

⁵Charles Dollar and Carolyn Geda to members of the Society of American Archivists' Automated Rec-

ords and Techniques Committee, 13 September 1979, ICPSR Records.

⁶*Society of American Archivists 43rd Annual*

As those involved in these activities grappled with how to organize an educational program for electronic records, the final impetus began in May 1980. As part of a Mid-Atlantic Regional Archives Conference (MARAC) meeting in May 1980, staff members from the U.S. National Archives presented a daylong workshop, "Introduction to Machine-Records in Archives." At the request of the members of the (now) Task Force on Automated Records and Techniques, the outline of the MARAC workshop was distributed in advance of the annual task force meeting in Cincinnati. With the outline was a transmittal letter, stating,

According to the five-year plan, new workshops and sessions will be added each year to the SAA meeting. Concurrently, the Task Force will be preparing material for the SAA manual series and a two-day workshop. Before we can leap from individual workshops to a coherent training program, we need to determine if and how the individual workshops and sessions fit together. In short, the Task Force should begin to develop a learning hierarchy and be sure that all educational activities meet the needs of that hierarchy.⁷

At the annual meeting, the task force members endorsed this suggestion. As a result, two members of the task force agreed to draft a learning hierarchy for discussion at the midyear meeting in 1981.⁸

The development of a learning hierarchy was far from straightforward; the first ef-

fort led to making not one but three separate drafts. Fortunately, within days, the three hierarchies quickly coalesced into one version, which was presented to the task force in April 1981. The members reviewed the documentation in considerable detail and accepted a proposal that outlined a "core curriculum" as a matrix consisting of four levels and comprising both seminars and workshops:

Level One: General knowledge of computers and automated systems.

Level Two: Knowledge required in order to administer or manage machine-readable records.

Level Three: Knowledge or skill needed in order to gain intellectual and/or reference control over machine-readable records.

Level Four: Knowledge and skills beyond the "core curriculum," required of an archivist whose primary responsibility is for machine-readable records.

In other words, Level One would be basic computer literacy. Level Two would be for senior officials whose overall program included an electronic records role. Level Three would be for archivists who have hands-on responsibility for the archival administration of electronic materials in addition to duties relating to traditional archival media. The last level would be for professionals specializing in automated records and would be beyond the "core curriculum" that the task force was offering. While embracing the concept of the core curriculum, the meeting proposed some changes to the basic document. As a result, in light of these comments, one of the drafters revised the document in time for further discussion at the annual meeting in Berkeley in August.⁹

Meeting. Chicago, Illinois. September 25-28, 1979, 31.

⁷Thomas E. Brown to Carolyn Geda, 15 August 1980. ICPSR Records.

⁸"Minutes of the Annual Business Meeting of the SAA Task Force on Automated Records and Techniques, Cincinnati, 29 September 1980, 1:00-5:00 P.M." ICPSR Records.

⁹"Minutes of the Mid-Year Meeting Held in Washington, 10 April 1981," ICPSR Records.

**Table 1. Automated Records and Techniques Task Force
Learning Objectives, Version 1 (1981)**

	LEVEL ONE	LEVEL TWO
	SEMINAR Introduction to Computers and What They Are	SEMINAR Introduction to the Management of Machine-Readable Records
WORKSHOP Records Management of Machine-Readable Records	The archivist will identify the various types of processing, master, and output files common to most machine- readable systems.	The archivist will compare statistical analysis systems with database management systems.
WORKSHOP Appraisal of Machine-Readable Records	The archivist will identify the different elements in a data hierarchy. The archivist will discuss the manipulability of a machine- readable file.	The archivist will analyze the internal structure of a fixed-length record. The archivist will discuss the research value of a machine- readable file.

(continued on page 415)

This revised core curriculum consisted of a matrix that outlined the learning objectives for two seminars, four workshops, and a professional action kit on preservation (see table 1). The purpose was to permit a great deal of flexibility within a coherent training program consisting of workshops and seminars at the annual meetings. The seminars for Levels One and

Two were designed to impart knowledge needed to oversee programs. The seminars would build on each other so that one would have to participate in the Level One seminar before joining the Level Two seminar. Since Level Three skills refer to tasks rather than knowledge, they lend themselves to workshops rather than seminars. Consequently, the task force proposed four work-

Table 1. Automated Records and Techniques Task Force Learning Objectives, Version 1 (1981), continued

	LEVEL THREE	LEVEL FOUR Beyond the Core Curriculum
WORKSHOP Records Management of Machine-Readable Records	The archivist will determine, through a discussion of the documentation, which files are the processing, master, and output files in a computerized system. The archivist will determine the time for disposal of the processing, master, and output files in a computerized system.	
WORKSHOP Appraisal of Machine-Readable Records	The archivist will determine the readability of a machine-readable file. The archivist will interpret the internal structure of a variable-length record by comparing one or more records with the documentation. The archivist will interpret the internal structure of a hierarchical file by comparing one or more records with the documentation. The archivist will determine the adequacy of the documentation accompanying a machine-readable file. The archivist will compare and contrast the research value of a machine-readable file with that of alternative records.	The archivist will test hypotheses about two different groups and about different measures of the same group. The archivist will validate each record of a file with the documentation and will correct and/or describe any inconsistencies.

(continued on page 416)

shops, to be repeated at annual meetings, which would incorporate the Level Three skills. In contrast to the skill levels, each of the four workshops would stand independently. An archivist could participate in any or all of them in any order. Or an archivist might desire to attend the seminar(s) before moving to the workshops to gain hands-on experience. Since these work-

shops and seminars were to be repeated at the annual meetings, one person could participate in one or two each year over several years, whereas another could take all four in a single year to handle an urgent problem. While structuring the workshops and seminars for the annual meetings, the task force suggested that the core curriculum could provide the basis for one- or two-

**Table 1. Automated Records and Techniques Task Force
Learning Objectives, Version 1 (1981), continued**

	LEVEL ONE	LEVEL TWO
	SEMINAR Introduction to Computers and What They Are	SEMINAR Introduction to the Management of Machine-Readable Records
WORKSHOP Describing and Documenting Machine-Readable Records	The archivist will analyze the elements of a traditional archival description of a machine-readable file. The archivist will identify the minimum necessary elements of documentation to determine the technical and intellectual characteristics of a machine- readable file.	The archivist will identify the elements of a catalog description of a machine-readable series in a standardized format.
WORKSHOP Accessing Machine-Readable Records		The archivist will determine how various utility programs common to most computer centers can be applied to processing machine- readable records. The archivist will determine if the technical specifications of various systems can process selected files. The archivist will discuss the uses of extracts, low-level aggregations, random error, and in-house analysis of data in order to release restricted information.
PROFESSIONAL ACTION KIT Preservation of Machine-Readable Records		The archivist will discuss the advantages and disadvantages of various storage media.

(continued on page 417)

day training programs in conjunction with the annual or regional meetings. A one-day program would consist of the two seminars; a two-day program would consist of the four workshops.

It was this complex matrix concerned only with automated records that the task force forwarded to SAA council on the bright, sunny day of the meeting north of San Francisco Bay. Council's formal approval, it was believed, would simplify the imple-

mentation of the curriculum. In retrospect, this core curriculum was probably naive—for at least four reasons. First, the curriculum called for six training sessions at each annual SAA meeting. And these were only for automated records, not for techniques! To commit such a major portion of the annual meetings to sessions with limited enrollment and concerned with electronic records was probably unrealistic. Second, the meshing of the seminars and workshops

Table 1. Automated Records and Techniques Task Force Learning Objectives, Version 1 (1981), continued

	LEVEL THREE	LEVEL FOUR Beyond the Core Curriculum
WORKSHOP Describing and Documenting Machine-Readable Records	The archivist will describe a series of machine-readable records in a format appropriate to a traditional archival series description. The archivist will catalog a machine-readable series in a standardized format. The archivist will evaluate the quality of the elements in the documentation for machine-readable records at various levels of completeness. The archivist will prepare documentation for distribution to researchers.	The archivist will develop all necessary elements of documentation in a situation in which some elements were incomplete or in error.
WORKSHOP Accessing Machine-Readable Records	The archivist will execute utility programs. The archivist will identify files that can support various research designs. The archivist will develop a strategy to create public use extracts from restricted files.	The archivist will modify utility programs. The archivist will develop strategies to release information from a restricted file through low-level aggregation, random error, and analysis according to researcher specifications.
PROFESSIONAL ACTION KIT Preservation of Machine-Readable Records	The archivist will outline a storage and preservation program for a data archives.	The archivist will write a program to reformat a machine-readable file from a less useable format to a more useable format (e.g., from packed decimal to EBCDIC).

into three knowledge and skill levels was very complex. This complexity would pose serious hurdles to any attempt to explain the structure to archivists interested in learning about electronic records. Third, the task force probably overestimated the council's authority in the micromanagement of the society's activities. Indeed, this was the same council meeting that directed the task force to "develop a major thematic element on automation for the 1984 annual

meeting."¹⁰ But the 1984 program committee would ignore this charge. Finally, individual workshop and seminar leaders would have their own concept of training activities for which they were responsible. Hence they would reasonably object to imposition of the contents—even if endorsed by council. Fortunately, the development

¹⁰"Society of American Archivists," *American Archivist* 45 (Spring 1982): 237.

of a core curriculum for automated techniques brought a strong dose of reality to the machine-readable curriculum.

The first effort to develop a curriculum for automated techniques was a reaction to the initial draft of the learning hierarchy for computer records discussed at the 1981 midyear meeting. As a result, two members volunteered to outline during the summer a series of education modules for automated techniques to be conducted at annual meetings. Their proposal outlined one Level One workshop, four Level Two workshops, and five Level Three workshops—a total of ten. Although the task force discussed the document in Berkeley, the group came to no concrete decision other than that a core curriculum should be developed for automated techniques similar to that which the task force had developed for automated records. When the task force turned its attention again to the issue in April 1982 at the midyear meeting, a general agreement emerged that the core curriculum for automated techniques should outline what archivists need to know to plan, develop, implement, and maintain automated systems. Using this approach, three task force members agreed to prepare a revised draft of a core curriculum for automated techniques in time for the annual conference in Boston the next October.¹¹

Mirroring the core curriculum for records, the techniques document had three levels. Level One was basic computer concepts for both curricula. Level Two would consist of four workshops, offered separately or in two logical combinations: (1) information needs assessment for archives administration, (2) systems analysis for archives administration, (3) technology assessment, and (4) systems design evaluation and implementation. Level Three would

consist of a variety of separate courses on indexing theory, thesaurus construction, networking technology, work scheduling and monitoring, and file management in archives administration. Within a month, this proposal was revamped. A great impetus to this revision was one member's efforts to develop a workshop on planning for automation in archives, both for the SAA annual meeting and for a MARAC conference. From this effort, a curriculum emerged, consisting of four levels:

Level One: Introduction to Computer Concepts

Level Two: Planning for Automated Systems in Archives

Level Three: Implementing Automated Systems in Archives

Level Four: High Tech Applications in Archives and Information Management.

By the time of Boston meeting, this structure had gained acceptance among the task force members working on the core curriculum for automated techniques. Thus the annual meeting served only to adopt the document quickly and then use it as the basis to propose three workshops for the 1983 annual conference in Minneapolis: "Basic Computer Concepts," "Planning for Automated Systems in Archives," and "Implementing Automated Systems in Archives." At the same meeting, the core curriculum for automated records became the basis for a two-day preconference workshop being proposed for Minneapolis in 1983. Thus, by the annual meeting in Boston, the core curricula for both records and techniques had been developed and were in the initial stages of implementation.¹²

¹¹"Mid-Year Meeting of the Task Force on Automated Records and Techniques, 5 April 1982," ICPSR records.

¹²David Bearman to Richard Kessner and Elaine Engst, 7 April 1982; Richard Kesner to Carolyn Geda and Harold Naugler, 12 April 1982; Richard Kesner to ART Task Force Members, 25 May 1982, "Task Force on Automated Records and Techniques Business Meeting, Monday, 18 October 1982, Boston," ICPSR Records.

The core curriculum for techniques provided a structure for in-conference workshops, but the document needed to be expanded to be used for a preconference workshop. At the midyear meeting in 1983, a volunteer agreed to organize the core curriculum into a format appropriate for a two-day workshop. He quickly developed a draft outline for automated techniques, listing the learning objectives, the course outline, and course materials for both one-day and two-day training programs. After reviewing the course outline, the task force agreed in October 1983 to restructure the core curriculum for records into a format similar to the one developed for techniques. Clearly, with the emphasis on course outlines for two-day courses, the core curricula for both techniques and records have evolved from trying to structure the content of two- or three-hour seminars and workshops into forming the basis of the two-day training programs. In doing so, the effort to distinguish between different skill and knowledge levels was abandoned.

The final step in the evolution of the curriculum came as a result of a proposal by Harold Naugler in April 1985 that the curricula be published in *ADPA: Automation—Archives—Informatique*. Because the core curriculum for techniques might be changed as a result of a two-day preconference workshop the following October in Austin, the proposal was delayed for a year. But in 1986, four task force members worked to integrate the material into single document. As a result of the development of a draft and exchange of comments among the four members, a final document appeared. This document, "An Educational Program To Train Archivists in Automation," was forwarded to Brussels for publication (see table 2).

The development of learning hierarchies and learning objectives is somewhat theoretical, and so these efforts were always tempered by the concrete reality of organizing workshops and seminars. Very early

on, members of the task force expressed concern about proposing too many workshops and seminars that would "take over" the program.¹³ One solution was to alternate the preconference workshops on records and techniques with each annual meeting. In the years when a preconference workshop was not offered for records, the SAA annual meeting would include two or more workshops for records. The same would be true for techniques when a preconference workshop did not address techniques.

Although the plan was theoretically sound, table 3 indicates that its implementation was not consistent. This lack of consistency has its roots in three factors. First, the review of the development of the core curriculum clearly demonstrates that the learning objectives and curriculum evolved over time. As members of the task force or committee revised the curriculum, they at times deferred the presentation of a two-day preconference workshop until the additional changes had been agreed upon. Second, coordination of preconference and in-conference workshops proved to be more complex than first expected. SAA headquarters sanctioned preconference workshops; the Program Committee approved proposals for in-conference workshops. Further complicating this division of approval authority was the timing for proposals. Program suggestions had to be submitted about twelve months preceding the conference, in contrast to preconference workshops being submitted six to eight months before the annual meeting. And program committees did not automatically accept task force proposals for workshops during the annual meeting. The third source of inconsistency was that the task force twice dur-

¹³"Society of American Archivists Mid-Year Meeting of the Task Force on Automated Records and Techniques, 5 April 1982, The Smithsonian Castle Regents Room, 9:00 a.m.–5:00 p.m." ICPSR Records.

Table 2. An Educational Program to Train Archivists in Automation

Learning Objectives and Course Content
A. Basic Computer Concepts 1. The archivist will understand the main components in an automated information or computer system. 2. The archivist will learn how data is stored digitally, in binary numbers, and in standard character codes. 3. The archivist will understand the data hierarchy in a computer system: data elements, records or logical records, files, and databases. 4. The archivist will distinguish storage devices as providing either sequential access or direct access. 5. The archivist will learn about different hardware components: central processing unit, main memory and registers, and peripheral devices. 6. The archivist will understand the difference in types of software; operating systems, application programs, commercial packages for specific functions. B. Automated Techniques 1. The archivist will understand the organization and manipulation of data in an automated system. 2. The archivist will analyze the manual procedures and sources of information for an automated information retrieval system in terms of different types of output from the system. 3. The archivist will understand the decision-making process regarding the acquisition of an automated information system. 4. The archivist will create an exercise database on a microcomputer using commercial database management software. 5. The archivist will outline the procedures to evaluate, maintain, and expand an operational database. C. Machine-Readable Records 1. The archivist will learn to inventory the components of automated information systems and then describe them. 2. The archivist will determine the informational and evidential value of a machine-readable file through an analysis of (1) the units of analysis, (2) the level of aggregation, (3) the differences between administrative and survey data, and (4) linkage potential. 3. The archivist will learn to develop records control schedules for automated records systems based upon the information gathered during the inventory and the decisions made during the appraisal. 4. The archivist will determine whether sufficient documentation exists to accession a file into archival custody. 5. The archivist will determine how to process machine-readable records in order to make them available for research. 6. The archivist will understand the types of information needed to describe machine-readable data files and the use of data in standardized formats. 7. The archivist will discuss the dissemination of files with restricted information. 8. The archivist will discuss the research communities for machine-readable data. 9. The archivist will discuss preservation techniques to ensure the integrity of machine-readable data files in archival custody. Previous Experience The above curriculum, defined by its learning objectives and course contents, is not new. Rather, archivists have used it to offer a variety of workshops, seminars, and training programs. As of October 1986, archivists have used this curriculum as the basis of thirty-two workshops during SAA annual meetings. In addition, the SAA Task Force on Automated Records and Techniques has used the above curriculum four times to present two-day workshops on machine-readable records and twice to present two-day workshops on automated techniques.

Table 3. SAA Workshops, 1981–90

	Preconference Workshops	Conference Workshops
1981	None	Basic Computer Concepts Appraisal
1982	None	Basic Computer Concepts Appraisal Planning for Machine-Readable Records Program Planning for Automated Systems in Archives
1983	Machine-Readable Records	Basic Computer Concepts Planning and Implementing Automated Systems in Archives: An Overview Planning Archival Information Systems Implementing Automated Systems
1984	Machine-Readable Records	Basic Computer Concepts Planning for Automated Systems Implementing Automated Systems
1985	Automated Techniques	Basic Computer Concepts Management of Automated Records Systems Appraisal
1986	Machine-Readable Records	Basic Computer Concepts Integration of Data Between Commercial Software Packages Planning and Implementing a Repository Systems Analysis Basic Database and Planning Concepts
1987	None	Basic Computer Concepts Management of Automated Record Systems Appraisal Managing a Machine-Readable Data Archives
1988	Automated Techniques	Inventorying, Scheduling and Managing Computerized Data Appraisal and Research Use of Machine-Readable Records
1989	Machine-Readable Records	Basic Computer Concepts Information Management and Machine-Readable Archives
1990	None	None

ing the decade developed grant proposals to write transportable curriculum materials in order to get the task force “out of the workshop business.” With their proposals finished, task force, and then committee, members concluded that preconference and in-conference workshops no longer demanded their energies.

This inconsistency in scheduling was more than assuaged by the diversity of educational programs outside of the formal SAA structure. As the initial core curriculum

proposal rested on a presentation to MARAC, the first preconference workshop incorporated materials on description which had been presented for years during workshops at the annual meetings of the International Association for Social Science Information Service and Technology (IASSIST). Similarly, the initial workshop on planning in 1982 was forged during earlier presentations to MARAC and the Society of Southwest Archivists. The two-day workshops on both records and techniques

were presented within the first year outside of a formal SAA environment—the records workshop at the behest of the Utah State Archives and the techniques program in conjunction with a Southeast Archives and Records Conference (SARC) meeting.

Finally, portions of the core curricula for both techniques and records have been presented in at least ten countries and for such disparate professional organizations as the Association of Canadian Archivists, Association of Records Managers and Administrators, Midwestern Archives Conference, Mid-Atlantic Regional Archives Conference, National Association of Government Archivists and Records Administrators, International Council on Archives, and International Association for Social Science Information Service and Technology. Probably the most extensive undertaking using task force materials was fifty-six hours of classroom instruction in a George Brown University course—“Machine Readable Records and Archives”—during the fall 1987 academic term. Similarly, portions of the curriculum have been incorporated into SAA-sponsored training beyond the core curriculum, most notably the two-day workshops sponsored by the SAA Education Program Office, “Starting a Program for Electronic Records” and “Information Management, Electronic Record Keeping and Machine-Readable Archives.” Certainly, the swap shops for microcomputer database management systems at the 1990 annual meeting incorporated materials from the earlier workshops on automated techniques. Thus the SAA curriculum materials drew from other programs and, in turn, provided input to others in a highly interrelated and interdependent relationship among a variety of educational activities.

As the core curricula evolved, so too did the exercises and examples used in the workshops. For the records workshops, the examples during the last ten years used no fewer than seven actual files to illustrate course content. In addition, workshop lead-

ers created four mythical systems with related files. At least five reasons underlie this constant revision of the course content.

First, as technology has changed, workshop leaders have developed new examples to reflect the newer information systems. Indeed, many of the elements in the learning objectives and core curriculum are rooted in mainframe batch processing systems. However, the development of new examples has enabled the workshops to present information on the newer technologies without undertaking a revision of the learning objectives. Second, none of the real or mythical files were perfect. For a file to be used in a workshop setting, its subject matter and contents must be readily understood by the workshop participants without becoming involved in the minutiae of the data. As a corollary, any documentation must be brief and to the point. Identifying a suitable file was thus difficult.

Third, the course materials were in varying stages of being neatly packaged. Obviously, as a file replaced another in the course content, any effort at perfecting the presentation ended. Fourth, as workshop leaders changed, the new trainers frequently wanted to use as examples files from their institutions which, in some cases, they had already processed manually. This desire may have stemmed from an insecurity about lacking a thorough knowledge of the file used as an example, from an effort to promote holdings they found attractive, or from a wish to put their own imprint on the workshop. Fifth, some have objected to the use of mythical records because they impart false information. But for whatever reason, workshop materials developed by one individual, with few notable exceptions, were not adopted by another conducting a workshop on a similar topic.

For automated techniques workshops, the examples have changed even more dramatically than those in records workshops. The reason for this is seemingly clear. The first workshops emphasized systems analy-

sis and planning using paper exercises. But technology has expanded to permit hands-on experience, and the workshops changed to accommodate this development. Thus the major thrust of the workshops on automated techniques was to demonstrate the use of commercial software packages. With a reliance on a hands-on approach, the rapid pace of enhancements in commercial packages limited the long-term viability of curriculum materials. In short, training materials became technologically obsolete in a few years.

This review of the early SAA educational efforts questions whether these efforts established a solid foundation for the current Curriculum Project. However, the title of this paper is "A Decade of Development," not "A Decade of Disasters." In this light, members of the SAA-designated groups for automation made great strides in the development of educational

programs. Hopefully, future projects will consider this past. In doing so, the future efforts should be mindful of all of the previously identified pitfalls. But four problems are especially troublesome. While curricula can be complex, the structure linking course contents together need not be. Second, a wealth of material spanning decades exists from other programs that grew in an almost symbiotic relationship with the SAA-sponsored programs. Third, the curriculum materials must be so well designed that trainers and educators will leap to incorporate them. If not, they cannot be imposed on academic courses or workshops over which the instructors are very territorial. Fourth, and finally, designers of any materials must be constantly vigilant against the danger of technological obsolescence. If future efforts heed these cautions, then SAA's early educational efforts may indeed have laid a solid foundation.