Standards for Archival Description

Standards for Archival Information Management Systems

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Abstract: In order to assess the potential utility of establishing a standard for archival information management systems, the author analyzes seven functional requirements statements written either as general instruments or to implement specific systems in particular institutional or network settings. He acknowledges the importance of the different environments in which archival information systems must operate and describes the components of an information system that a standard would need to address. He concludes that guidelines could be effective as a model for vendors to use as a baseline for system design and could serve as a foundation for other descriptive standards.

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DURING ITS FIRST MEETING in December 1988, the Working Group on Standards for Archival Description discussed whether the archival profession should seek to establish a standard for archival information management systems that would identify those areas in which all of the elements in an archival repository's information system operate. Such a standard would explain that "an archival information system has the following components and those components have the following functions."

The Working Group first examined the viability of developing a *technical standard*, whose exacting specifications, if strictly observed, would produce uniform and consistent results. Based on the criteria for standards development compiled by the Working Group,[1] the potential value of such a technical standard appeared to be very poor. The group viewed it positively on the basis of immediacy, usability, importance, and breadth of applicability; but it was seen as having poor potential for popularity, retrospective impact, and—most importantly—cost-effectiveness. The negative cost-benefit ratio alone convinced the group that further review of the development of such a technical standard was unnecessary. However, there appeared to be considerably more potential as a *convention* (rules that should be applied as consistently as possible, but which will not necessarily produce uniform results) or as a *guideline* (a model against which practices and services can be compared).

This report assesses the nature and potential viability of such conventions or guidelines by examining selected documents that represent archivists' views of the functional requirements for archival management. Included in this examination were two general statements and five functional requirements statements written for specific systems to be implemented in particular institutional or network settings. The general statements were one developed by the Society of American Archivists as the basis for evaluating archival institutions and one written as a generalized statement of functional requirements for an information management system appropriate for archives and museums.[2] Two of the five functional requirements statements were requests for proposals (RFPs), seeking responses from outside vendors; the other three were functional requirements documents prepared for internal development.

Functional Requirements and Operating Environments

Any standard that might be developed must take into account the various environments in which an archival information system can operate. The five functional requirements documents selected for this study reflect that diversity.

- The **National Archives and Records Administration** (NARA) operates on a national scale, with multiple divisions and sites. So massive a program requires special attention to communication between divisions and coordination among the various locations.[3]
- The **New York State Archives** is a large state archives with an extensive records management program. While their needs

[1] "Report of the Working Group on Standards for Archival Description," *American Archivist* 52 (Fall 1989): 455.

[2] "Evaluation of Archival Institutions: Services, Principles, and Guide to Self-Study. Report of the Task Force on Institutional Evaluation," (Chicago: Society of American Archivists, ca. 1982); David Bearman, "Functional Requirements for Collection Management Systems," *Archival Informatics Technical Report* Part 2, 2:1 (Fall 1987).

[3] Sharon Gibbs Thibodeau, "A Functional Description of the Archival Information System," (executive summary for NARA managers, 1988, of "Revised System Concept for the National Archives Information System," 1986).

are complex, administration and facilities are centralized.[4]

- **Cornell University's** Department of Archives and Manuscripts is a unit of a major research library. The RFP envisions the use of a subsystem of an integrated library system. In such circumstances certain archival functions must be supported by system components designed for multiple library functions.[5]
- The **Research Libraries Group** operates a national bibliographic network, the Research Libraries Information Network (RLIN), that includes an integrated technical services system. Modifications intended to enhance archival functions are constrained by the existing system's design and capabilities.[6]
- **Michigan State University** developed MicroMARC:amc, a single-use, limited-capacity microcomputer system that could be used by a variety of small repositories.[7]

The outcomes that resulted from these functional requirements statements have important implications for the development of a standard for archival information management systems. Neither of the two RFPs that were distributed produced the desired result. One elicited no usable responses; although the other led to the purchase and implementation of a system, it did not, in fact, produce any adequate responses. The "best" response was withdrawn due to the financial failure of the vendor. This is indicative of the environment in which information systems are being developed and why proposals designed as internal developments or enhancements to existing systems predominate. Any effort to create standards must therefore facilitate projects of this type.

Components in an Archival Information Management System

Any standard, whether a technical standard, convention, or guidelines, would need to strike the proper balance between general and specific. A convention could be created more easily than a technical standard, but it likely would be only slightly more applicable. Most promising is a set of guidelines that would list the specific components to be included in an archival information management system and define the interrelationships between the components. The review of the seven functional requirements documents suggests the following list of components:

- The **appraisal** component documents the process of determining the value and recommended disposition of records. As a result of this process, records are designated for transfer, retention, or disposal and an audit trail recording various future actions is initiated.
- The **processing** component records the management of processing functions: survey, arrange, analyze, describe, and catalog. This includes the assessment of processing needs, assignment of staff, and a record of completion of processing steps.
- The **space management** component records the status (physical dimensions, load limitations, and environmental conditions) and use of each storage unit. It also records the location of every records

[4]New York State Archives, State Education Department, "Request for Proposal for Automated Archives Collection Management and Information Retrieval System," (unpublished, 1986).

[5]RMG Consultants, Inc., "Request for Proposals for an Integrated Library System for Cornell University Libraries," (unpublished, 1984).

[6]Lofton Abrams and Suzanna Langyal, "Functional Requirements for Manuscripts and Archives," (Yale University Library, unpublished, 1982). These requirements were compiled as the result of the work of the Research Libraries Group Task Force on Special Formats and were envisioned as serving the needs of a diverse range of archives and manuscript repositories.

[7]Michigan State University, "Functional Requirements for an Archival Records Management System," (unpublished, 1985).

container and links the data to maintain a dynamic relationship between storage unit, status, and records container placement.

- The **preservation management** component records the preservation status of various record units and the preservation actions that are needed. This includes recording of preservation condition, assessment of preservation needs, assignment of staff, completion of preservation actions, and resulting changes in preservation conditions.
- The **disposal management** component records the authorization, notification, and review of records relative to their disposal. It also records assignment of staff and actual destruction. This process grows out of the initial appraisal and disposition scheduling that was documented in the appraisal component.
- The **reference** component provides staff and patrons with access to description information, including provenance and historical/biographical information. It registers patrons and tracks research inquiries, search strategies, and the identification of record units for use. It records requests for retrieval of record units, retrieval, use, requests for copying, copying, costs of copying, and return of documents. It also would record loans of documents for research or exhibition.

Variations in Approaches

The analysis of the functional requirements statements reveals a number of variations in the way that archival information management systems have been developed. Most of the variations fall into three categories. One type of variation results from the evolution of specific functional areas to the point that they receive explicit recognition, as illustrated by the case of preservation. Although preservation activities are implicitly represented in all the documents, only the NARA document describes a specific preservation module.

The second type of variation is based on the immediate institutional and systems environment in which the repository operates. Institutional environment has influenced NARA's identification of a declassification component. Cornell's proposal developed as a part of an integrated library system proposal, and Yale's statement was designed within the constraints of the existing RLIN system. The Yale document excludes reference because the RLIN system design was based on the MARC AMC format, which does not include fields explicitly defined to support reference activities.

The third variation results from the degree to which functions common to all repositories are explicitly identified as a part of the archival information system. For example, Bearman's collections management system (one of the general statements studied) contains a "resource management" component that includes space, fiscal, staffing, and time management functions. The other functional requirements statements envision only a space management component, assuming that fiscal, staffing, and time management functions will be supported by systems other than the "archival information system."

Conclusion

The basic archival functions, as identified in archivists' writings over the past fifty years, are all represented in current system designs. To that extent, there appears to be a great deal of unanimity within the profession. The idea that "whatever we call it, we are all doing the same thing" was explicitly verified by Elaine Engst's report to the National Information Systems Task Force.[8] It is not surprising that both the generalized statements and the functional

[8]"Standard Elements for the Description of Archives and Manuscript Collections," (unpublished report to the Society of American Archivists Task Force on National Information Systems, September, 1980).

requirements documents prepared for specific institutions show a great deal of conformity. If this general agreement suggests the existence of something akin to an unwritten guideline in the profession, one could question whether it is necessary or effective to produce a formal standard.

The development of a convention for information systems in a generalized form should be relatively easy to achieve. Its application could be inconsequential, because everyone already agrees in principle, or it could prove to be inapplicable in a more precise form because of specific institutional constraints. Recognizing the range of circumstances represented in this analysis, it is hard to conceive of all these institutions creating functional requirements statements that met a precise standard. Any standard for archival information management systems is unlikely to lead to a general improvement in professional practice, but its value to the profession may lie in its effectiveness as a model for vendors and internal developers to use as a baseline for system design. Additionally, it may serve as a foundation for a system of description standards.