

Case Study

Does AMC Mean “Archives Made Confusing”? Patron Understanding of USMARC AMC Catalog Records

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Abstract: Archivists create MARC AMC catalog records to enhance access and make information about holdings more widely available, but they have not evaluated the effectiveness of those descriptions for a diverse audience. Inclusion of MARC AMC descriptions in integrated online catalogs and other factors have increased the difficulty of interpreting catalog records. Studies of patron understanding of MARC AMC records are needed to validate or contradict our assumptions that these descriptions are intelligible to our patrons. The integrated online catalog environment at the Arizona State University Libraries is a test site for the formulation of a user study to measure patron understanding of MARC AMC records.

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THE DEVELOPMENT OF THE machine-readable cataloging (MARC) formats and their implementation in online catalogs and bibliographic networks has brought libraries and research institutions closer to the dream of fully integrated access to information in all formats. Archivists and manuscript curators have established a significant base of USMARC Archival and Manuscripts Control (MARC AMC) descriptions in bibliographic utilities: In 1992 the Online Computer Library Center (OCLC) system contained almost 170,000 MARC AMC records and by 1993 the Research Libraries Information Network (RLIN) boasted more than 380,000 such records. In addition, many institutions are now loading MARC AMC records onto powerful local systems, including online public access catalogs.¹ Notwithstanding the great success of the archival community in electronically sharing this descriptive information, there have been few attempts to ascertain the utility of these online systems and the descriptions they contain. It is apparent that we have little knowledge about whether these descriptions are being found and understood by our users.

The SAA Working Group on Standards for Archival Description addressed this issue in Recommendation 12 of their report by indicating that "automated descriptive systems are being structured on the basis of unverified assumptions" and by calling for user studies to test our descriptive practices.² This call has not been answered. Although librarians have developed a substantial base of professional literature that relates to subject search strategies and sys-

tem-dependent search techniques, there is very little archival literature on the subject. Avra Michelson and Matthew Benjamin Gilmore have each published studies of archival automation issues relating to subject analysis and provenance-based access, but library and archival research studies and institutions implementing MARC AMC cataloging have not investigated the intelligibility of the descriptive records.³ Librarians and archivists have assumed that once a search has been completed the descriptions presented in a MARC AMC record are understandable and sufficient for the user to make an informed choice.

This paper will explain why studies of patron understanding of MARC AMC records are needed to validate or contradict archivists' assumptions about cataloging practices. It will also describe factors that influence the intelligibility of catalog records, using implementation of MARC AMC records at the Arizona State University Libraries as a case study. Finally, the paper will describe the development of a user study to test patron understanding of MARC AMC records.

Need for User Studies

The need for studies of patron understanding of archival description was recognized by the profession as early as 1986, when the SAA Task Force on Goals and Priorities (the GAP Task Force) called archivists to "evaluate the utility of descrip-

¹OCLC statistical cumulations dated 3 October 1992 from "Appendix A," *Amigos Agenda and OCLC Connection* 92-12 (December 1992): 28; electronic mail correspondence, Lois Schneberger to Robert P. Spindler, 1 April 1993. Data from RLIN profiling runs completed 28 March 1993.

²"Recommendations of the Working Group on Standards for Archival Description," *American Archivist* 52 (Fall 1989): 473.

³Library studies of subject searching and search strategies include T. A. Peters, "When Smart People Fail," *Journal of Academic Librarianship* 15 (November 1989): 267-73, and N. K. Kaske, "A Comparative Study of Subject Searching in an OPAC Among Branch Libraries of a University Library System," *Information Technology and Libraries* 7 (December 1988): 359-72. The archival studies are Avra Michelson, "Description and Reference in the Age of Automation," *American Archivist* 50 (Spring 1987): 192-201, and Matthew Benjamin Gilmore, "Increasing Access to Archival Records in Library Online Public Access Catalogs," *Library Trends* 36 (Winter 1988): 609-21.

tive systems and practices for all types of users” and to “determine how comprehensive descriptive standards and practices can be made to satisfy all members of the user community.”⁴ The GAP Task Force report made these recommendations in the context of a call to make archival materials available to audiences other than students or scholars. The report implied that archival description is not intelligible to inexperienced users, and that archivists can only attract new user groups by producing descriptions patrons can understand and use.

An additional incentive for studies of this kind is the substantial progress being made in the analysis and development of external and internal technical standards, conventions, and guidelines for archival description. Recommendation 12 of the Working Group on Standards for Archival Description calls for user studies of current descriptive practices “to provide a benchmark for the improvement of archival description and the subsequent development of standards.”⁵ Since archivists are still in the early stages of online system implementation and descriptive standards development, the time is ripe for assessment of our current descriptive practices and incorporation of this information into the standards-setting process.

As archivists who provide reference services, we have often been confronted with inquiries that suggest patrons have misinterpreted a MARC AMC catalog record. Patrons searching in online catalogs and accustomed to finding descriptions of books do not always realize the nature or subject content of the material described. They sometimes request information not actually available in the collection or incorrectly identify the format of the material. To im-

prove archival reference services, attract new user groups, and participate in the development of descriptive standards, it is important that patron understanding of archival description be tested through research.

Factors Influencing Patron Understanding

The task of evaluating the utility of the description involves a wide variety of factors not limited to the descriptive standard. The GAP Task Force report recognized that some aspects of user understanding of archival descriptions relate more to the contexts of their applications than to the descriptions themselves.⁶ These contexts may include the scope of the online catalog or bibliographic utility descriptions, the hardware and software used by those systems, and the relative sophistication of the user community.

The scope of online catalogs has changed dramatically in recent years and may be a principal issue in evaluating patron understanding. A number of institutions are now loading MARC AMC descriptions of archival materials into the same online catalogs that contain descriptions of traditional library materials.⁷ Successful use of these “integrated” online catalogs depends on the patrons’ ability to interpret the catalog record. In the past, patrons could look in the traditional card file and identify books that related to a specific subject, then go di-

⁴*Planning for the Archival Profession: A Report of the SAA Task Force on Goals and Priorities* (Chicago: Society of American Archivists, 1986), 24.

⁵“Recommendations of the Working Group,” 472.

⁶*Planning for the Archival Profession*, 24. The GAP Task Force recognized the need to address “all user groups,” suggesting that archival description is not necessarily effective for all users and that intended audience is one contextual factor in patron understanding. The issue of democratic description is controversial, in that it may place availability (intelligibility) of archival description in conflict with specific institutional missions.

⁷An inquiry posted on the Archives and Archivists Listserv in December 1992 produced responses from representatives of twenty-nine institutions that are loading MARC AMC descriptions into integrated local online catalog systems.

rectly to the book on the shelf and check it out. Now that integrated online catalogs contain descriptions of materials in a variety of formats, descriptive records contain many more variables. In order to determine the utility of the material described, the user must correctly identify format, level of description (e.g., item, series, or collection), extent, and dates of publication or inclusive dates. Heterogeneity of the subject content of archival collections requires the user to make a determination about the quantity and quality of material in a collection relating to one of a number of subjects. This appears to have been a less significant factor with books, which generally have more homogeneous subject content.

In our repository, an often unanticipated result of integrating archival descriptions with those of general library collections is user impatience with restrictive access and use policies of typical archival repositories. We have encountered library patrons who are enticed by a description of archival materials but are frustrated when they discover the archives are noncirculating, service hours are limited, and registration forms are required. Insufficient library instruction and the patron's inability to interpret the catalog record can lead to unwelcome surprises when users reach the archival reference desk.

Recent advances in online system hardware and software have also had an impact on patron service. The advent of telecommunication links to online catalogs and the proliferation of personal computers are now important factors in archival reference service. In an online environment where researchers may encounter MARC AMC records in the general reference area or at home, the assistance of a reference archivist may not be available. H. Thomas Hickerson anticipated the issue of remote accessibility of archival descriptions when he wrote that general reference librarians will need to understand the "nature and

usage of archival materials."⁸ Because patrons using dial-up capabilities from other locations to consult online catalogs will have to depend on their own interpretive abilities, institutions must consider whether the content of the descriptive records is intelligible to potential users without assistance.

Online catalog software could be another important aspect of intelligibility. Libraries and archival repositories use a variety of software packages that are usually customized to some degree in order to address the needs of specific institutions. As a result, institutions that use the same online catalog software can have very different searching capabilities and catalog displays. An offline Research Libraries Group (RLG) study in 1985 sought to investigate the utility of variant bibliographic displays in online catalog systems. The study identified some particularly effective display formats, but it also recognized that MARC AMC records presented some additional problems because of their length and complexity.⁹

In addition, online catalog software may not support all the functions of MARC AMC records because these systems are principally designed to support the descriptive needs of library materials rather than archives. The CARL online catalog system at Arizona State University automatically supplies the display constant "Author" alongside the main entry field of every catalog record, even though it is an inaccurate and misleading main entry for some archi-

⁸H. Thomas Hickerson, "Archival Information Exchange and the Role of Bibliographic Networks," *Library Trends* 36 (Winter 1988): 568.

⁹See Walt Crawford, "Testing Bibliographic Displays for Online Catalogs," *Information Technology and Libraries* 6 (March 1987): 20-33, for a description of the RLG Bibliographic Display Testbed Project. Crawford called for a number of small evaluative projects focused on specific details of system design and catalog display in addition to large, independently sponsored projects, indicating that "online catalog design suffers from an abundance of opinions and a scarcity of facts."

val materials received from collectors or interviewees.

The relative experience level and computer literacy of different user groups may also be an important aspect of patron understanding. Research by Alex Koohang and David Byrd indicated that students with computer experience had more positive attitudes toward an online system than those without experience, and that familiarity with computer keyboarding was also a factor in higher perceptions of online catalogs.¹⁰ Positive attitudes and computer familiarity could also correlate with increased attention to detail and persistence in examining lengthy archival descriptions.

One of the major factors in the decision to integrate descriptions of archival holdings with descriptions of materials in other formats has been the assumption that a wider group of users will access archival materials, and that improved patron service will result. David Bearman suggested that "there is no reason to stop with higher education; secondary schools and the general public have as great a use, and need for access to the cultural knowledgebase." Richard Szary has written, "Effective reference service should alert the user to the range of pertinent documentation, no matter what form or location."¹¹ The laudable goals of providing integrated access to materials and attracting a diverse user population have made reference service a far more compli-

cated affair than it once was. Although archivists have, in fact, provided descriptions of the range of pertinent documentation, a relatively small portion of users may actually want or need to use archival materials. A researcher wanting to know the average annual rainfall in Phoenix, Arizona, needs an almanac, not the records of the weather bureau. Faced with descriptions of both the weather bureau records and an almanac, the patron should be able to differentiate between the two and select the appropriate source material. If archivists are going to build integrated catalogs for use by a broadly based audience, identification of the format, scope, and subject content of materials described becomes more crucial for quality reference service.

The issue of patron understanding of archival description extends far beyond the creation of descriptive records and adherence to descriptive standards. Integrated online catalogs, remote access capabilities, the appearance of the catalog record display, and the relative experience of a diverse user population all affect intelligibility of MARC AMC descriptions. The combination of descriptive practices and the environment in which they are used ultimately affect the utility of archival descriptions. A number of user studies are necessary to investigate the ways that each of these variables affect patron understanding. Unfortunately, studies of descriptive practices in specific environments also limit the applicability of the research findings to similar environments. If archivists are to succeed in responding to the charge of the GAP Task Force report, they must not only examine descriptive practices but also study practices within implementation contexts that are common to a broad base of institutional settings.

The need for an assessment of patron understanding of MARC AMC records became evident at the Arizona State University Libraries as we began to produce such records for entry into OCLC and the university

¹⁰Alex A. Koohang, "Effects of Age, Gender, College Status and Computer Experience on Attitudes Towards Library Computer Systems," *Library and Information Science Research* 8 (October-December 1986): 349-55, and Alex A. Koohang and David M. Byrd, "A Study of Attitudes Toward the Usefulness of the Library Computer System and Selected Variables: A Further Study," *Library and Information Science Research* 9 (April-June 1987): 105-11.

¹¹David Bearman, "Archives and Manuscript Control with Bibliographic Utilities: Challenges and Opportunities," *American Archivist* 52 (Winter 1989): 39; Richard Szary, "Archival Description Standards: Scope and Criteria," *American Archivist* 52 (Fall 1989): 521.

libraries online catalog. The Department of Archives and Manuscripts began retrospectively converting finding aid descriptions and cataloging individual manuscripts and oral history transcripts in the MARC AMC format in 1988. Currently, there are in the online catalog 220 MARC AMC records for individual manuscripts, manuscript collections, photograph collections, and oral history transcripts. These records have been submitted from three different departments within the university libraries.

Despite our efforts to produce quality MARC AMC records, questions emerged as they appeared online. Researchers arriving at our reference desk began asking questions such as "Can I see the Governor George Hunt Collection? I think there is information on prison reform in it." This reader was quite disappointed when he learned that this item was not a book he could check out, and that the information he sought was located somewhere within twenty-two linear feet of archival materials. Others asked to see the Arizona Oral History Project, referring to a series-level record for a collection of twenty-five individual oral history transcripts.

Motivated by these kinds of inquiries, we naturally blamed ourselves for the confusion of our patrons and began to look at the content of individual records to find out what went wrong. Although we suspected that certain portions of our descriptions might be misleading, we realized that we could only guess how patrons interpreted these records and what kinds of remedies would be effective. We therefore developed a study to try to answer some of our questions about patron understanding of MARC AMC records.

Hypothesis and Methodology

Our study was designed to prove that patrons have difficulty interpreting five different aspects of MARC AMC catalog records because of the data contents and

data values used (or not used) in certain fields or subfields. We decided to concentrate on data contents and data values because we believed that the results of our study would be most useful if they addressed issues that could be resolved through modifications of local descriptive practices or archival descriptive conventions.¹² The five aspects tested in this study were the relationship between main entry and the materials described; the meaning of linear footage as a unit of measure; inclusive versus bulk dates; availability of a finding aid for more detailed collection description; and the relationship between a subject added entry and the subject content of the collection.

Our methodology was based on a series of premises. In order to maximize applicability of our findings, we decided to test aspects of the MARC AMC record itself and to avoid testing search strategies. Rather than conducting an online survey, we chose to reproduce MARC AMC records in hard copy and remove any system-specific display information. We selected actual MARC AMC records from our catalog and from the examples given in the second edition of Steven L. Hensen's *Archives, Personal Papers and Manuscripts* (APPM2).

We phrased our questions in a way that imitated the questions we believed patrons would want the catalog record to answer. Many of our questions were based on situations we had actually encountered at the reference desk. We developed eight question types, each designed to address one of

¹²Examples of descriptive standards for data contents include *Anglo-American Cataloging Rules*, 2nd rev. ed. (Ottawa: Canadian Library Association, 1988) and Steven L. Hensen, *Archives, Personal Papers and Manuscripts*, 2nd ed. (Chicago: Society of American Archivists, 1989). Data values are "terms, names, alphanumeric codes . . . that are acceptable for entry in a particular data element." For definitions of data structures, contents, values, technical standards, conventions, and guidelines, see "Report of the Working Group on Standards for Archival Description," 452-54.

Figure 1. Question Type 4

Catalog record without assigned statement of responsibility from examples published in APPM2.

In this record, the "American Indian Institute"

- a) published the films.*
- b) is the subject of the films.*
- c) produced the films.*
- d) is the title of the collection.*
- e) Other*

ASU General Catalog

American Indian Institute.

Motion pictures, ca. 1940–1970.

19 items.

Black-and-white and color 16mm films, commercially produced for educational purposes, depicting sign language, a pipe ceremony, a war dance, a Navajo and a Sioux family, a Hopi settlement, an Indian fashion show, a Creek stickball game, and the Concho (Oklahoma) Indian School. American Indian Institute Manuscript Collection also in repository.

Gift of Boyce Timmons.

Inventory available in repository.

the five aspects of MARC AMC cataloging listed earlier in this article. We then posed most of the question types in different ways in the survey to analyze the quality of the question formulation and to account for idiosyncrasies in terminology or individual records. The survey consisted of seventeen multiple-choice questions referring to hard-copy reproductions of MARC AMC records.

The survey was administered to fifteen volunteer respondents during the winter and spring of 1990. Because of the small number of respondents, the results of this survey must not be considered complete or statistically precise. However, some of the preliminary results revealed wide margins that can be extrapolated to draw conclusions with a high probability of accuracy.

Findings

Question Type 4 (see figure 1) tests a patron's ability to ascertain the relationship between the main entry and the materials being described. In APPM2 the examples given use the relator terms *collector* and

interviewee to clarify this relationship. In our study an example lacking a relator and statement of responsibility was compared with an example with a supplied statement of responsibility. Less than half (40%) of our respondents to Question Type 4 correctly identified the relationship of main entry to materials described in the absence of a relator or statement of responsibility. Almost three-quarters (73%) of our respondents correctly identified the relationship when a relator code was used. All of our respondents correctly identified this relationship when a statement of responsibility was supplied.

Question Type 5 (see figure 2) was designed to determine if researchers understood the physical description data presented in field 300. Our question was designed to test patron understanding of the meaning of linear footage. Unfortunately, responses to the Type 5 questions were inconclusive. A more important question might have been whether patrons even look at the physical description area or at the general material designator (GMD) to determine what kind of material was being described. Our ex-

Figure 2. Question Type 5

You've been fruitlessly researching all day for the papers of Emmanuel Transmission. An hour before the reading room closes, you discover that he was better known by the name Elleston Trevor. Searching CARL for this nom de plume you find the following description of his papers. Can you read through all his papers in the hour remaining?

- a) Yes, easily.
- b) Maybe, if I skimmed them.
- c) No, there are too many.
- d) I don't know.

ASU General Catalog

Trevor, Elleston.

Elleston and Jonquil Trevor papers, [ca. 1955–] [manuscript].

11 ft.

The collection is accompanied by 144 published monographs, 13 books on tape and 1 video cassette.

Contains handwritten and typewritten manuscripts, synopses, correspondence and galley proofs for many of Elleston Trevor's novels, screenplays, short stories and plays written under his own name and the following pseudonyms: Mansell Black, Trevor Burgess, Roger Fitzalan, Adam Hall, Simon Rattray, Warwick Scott, Caesar Smith, Howard North and Jack Tango. Includes newspaper clippings and biographical information. Contains Jonquil Trevor's honors thesis (B.A.), masters thesis, newspaper articles and biographical information. Also present are newspaper articles and biographical information. Also present are newspaper articles and some art work of Jean-Pierre Trevor, son of Elleston and Jonquil Trevor.

English novelist and playwright. Elleston Trevor (Trevor Dudley-Smith) was born in England in 1920. Having served in the Royal Air Force, 1939–1946, he became a full-time writer of mystery and suspense novels. He currently lives in Arizona. Jonquil Trevor (Iris Burgess) served as a WAAF in England during World War II. She married Elleston Trevor in 1946 and became his literary agent. She died in 1986.

Unpublished guide available.

perience at the reference desk indicates that few patrons are aware that the catalog provides access to descriptions of materials in a variety of formats. The similarities between book and nonbook records may belie the great differences between the materials being described.¹³

Question Type 6 (see figure 3) examined

the ability of a description to accurately convey the dates of the material described. Only one-third (33%) of our respondents to Question Type 6 correctly identified the one collection useful for a study on Arizona in the 1920s out of four collection descriptions bearing inclusive dates. Patrons apparently confused life dates with inclusive dates, or did not understand the meaning of inclusive dates. One variation of this question tested patron recognition of inclusive dates and understanding of the use of bulk dates. When inclusive dates and bulk dates were given without the term *bulk* applied, only half of our respondents correctly identified the inclusive dates as distinct from the bulk dates. This result could support the option in APPM2 to use the term

¹³An observation made in a library study noted that patron ignorance of system capabilities was a major factor in usability, noting that inexperienced users often consulted their online catalog for access to journal articles. See Ron D. Blazek and Dania Bilal, "Problems with OPAC: A Case Study of an Academic Research Library," *RQ* 28 (Winter 1988): 173. Our experience at the reference desk suggests that patrons do not understand the difference between a catalog and an index.

Figure 3. Question Type 6

This question originally included four catalog records. It was edited for publication.

Which of the following examples would be useful for studying the history of Arizona from 1900–1920?

- a) *Henry Stanley McCluskey*
- b) *Thomas H. Dodge*
- c) *Neither*
- d) *Both*

ASU General Catalog

McCluskey, Henry Stanley, 1887–1968.

Papers, 1908–1963 [manuscript].

ca. 900 items (9 boxes)

Correspondence, biographical material, speeches, court cases, articles.

Lawyer, labor leader and public official of Arizona. Henry Stanley McCluskey served as organizer and member (1915–21) of the International Union of Mine, Mill, and Smelter Workers; as president (1922–23) of the Arizona State Federation of Labor; as member (1926–28, 1956) of the Arizona Industrial Commission; as Special Attorney for the U.S. Dept. of Justice (1929); as member (1923–28) of the Arizona Colorado River Commission, and as secretary (1923–26) to Governor George W.P. Hunt. He was also actively involved in the organization of labor unions, strikes, and litigation affecting water rights on the Upper Gila River and in New Mexico.

Unpublished guide available in library.

ASU General Catalog

Dodge, Thomas H., 1900–

Papers, 1921–1972 [manuscript].

4 ft.

Organized into 5 series: 1. Correspondence. 2. Navajo Tribe. 3. Apache, Hualapai, Osage Tribes. 4. Personal papers. 5. Miscellaneous papers.

Includes correspondence, reports, tribal council minutes and other administrative documentation, newspaper clippings and other related materials generated during Thomas Dodge's tenure at the various Indian agencies at which he served.

Unpublished guide available in library.

bulk when bulk dates are supplied with inclusive dates.¹⁴

Question Type 8 (see figure 4) addressed the issue of the role of a catalog description and the fact that, unlike book records, catalog descriptions of manuscript collections refer patrons to an intermediary source, such as a finding aid, for more detailed access to information. The question specifically asks how patrons respond to the index notes

in field 555. Do they know what an inventory or guide is and where it is located? Do patrons go directly to a general reference librarian or a reference archivist for assistance, or do they know they need to ask for an inventory or guide at the repository? Do they actually understand what they are being referred to? The answers to these questions may allow archivists to anticipate the level of reference support online MARC AMC records will require. In Question Type 8, over two-thirds (69%) of our respondents indicated that they would go to the repository and consult the inventory or guide

¹⁴*Archives, Personal Papers and Manuscripts*, rule 1.1B5, 15.

Figure 4. Question Type 8

In the process of writing a paper on Theodore Roosevelt in Arizona you located this record for the William John Murphy Papers, which are housed at the Arizona Collection. How can you quickly find out what kinds of material on Roosevelt are located in the papers?

- a) Ask at the General Reference Desk
- b) Ask the Archivist at the Arizona Collection
- c) Go to the Arizona Collection and use the calendar
- d) Go to the Arizona Collection and examine the papers
- e) Other

ASU General Catalog

Murphy, W. J. (William John), 1839–1923.

William J. and Laura Fulwiler Murphy papers, 1781–1924, 1872–1924.
1.5 ft.

Arranged chronologically with letters, documents and papers interfiled.

Entrepreneur, developer, canal builder. William John Murphy was born in New Hartford, New York on Aug. 23, 1839. He lived with his family in Ohio and Illinois. He served in the Union Army during the Civil War. Murphy and his second wife, Laura Jane Fulwiler Murphy, were married in 1874. William had two children by his earlier marriage, George and Lucy; he and Laura had four children: Ralph, Laila, Louise and Ray. The family moved to Northern Arizona in 1880, and to Phoenix, Arizona Territory in 1883 to build the Arizona Canal. In 1895 they planted the first commercial citrus and were early promoters of Phoenix real estate. By amalgamating the north side canal systems, Murphy and company put 475,000 acres under cultivation and paved the way for future water development in the Salt River Valley. Murphy prevailed upon President Theodore Roosevelt in 1906 to declare the Salt River watershed a federal preserve. Murphy was an active promoter of the Gila Bend Irrigation District and founded the towns of Glendale, Peoria and Marinette. His son, Ralph, was carrying most of his concern when W.J. died on April 17, 1923; his wife Laura died on May 21, 1943.

Unpublished calendar and index available.

Murphy, W. J. (William John), 1839–1923.

Murphy, Laura Fulwiler, 1845–1943.

Murphy family.

Roosevelt, Theodore, 1858–1919.

Murphy, Ralph, 1976–1961.

Kales, M. W.

Arizona Canal Company.

Salt River Valley Water Users' Association.

First National Bank of Arizona.

Canals Arizona Phoenix metropolitan area History.

Citrus fruit industry Arizona Phoenix metropolitan area History.

Frontier and pioneer life Arizona.

referred to in the index note, suggesting that our index notes in field 555 are effective for most patrons.

In the first appearance of the Question Type 8 we asked what the best way is to find out what kind of materials about Theodore Roosevelt are located in the Murphy papers. The collection record contains an

added entry for Roosevelt, but it does not refer to Roosevelt in the online scope and content note. The question attempts to determine how a patron reacts to a pertinent added entry that is not justified in the catalog record. Does the patron ask a reference archivist, ask for a finding aid, or ask for the collection itself? This question re-

ceived the highest number of "I would consult the reference archivist" responses (26%) of the three permutations of Type 8, indicating that the absence of an online explanation for the existence of an added entry could result in more patron inquiries at the reference desk.

The answers to these questions may indicate that the presence of each added entry should be explained in the scope and content note in field 520, as Hensen suggests in APPM2.¹⁵ Our ability to justify added entries in the catalog record is affected by a number of factors, including the depth of subject analysis to be applied, the relative heterogeneity of the subject content of a particular collection, and the ability of users to read and comprehend lengthy textual descriptions of archival materials. If added entries must be justified by the content of the online record, then archivists need to promote and develop systems that have high field- and record-length capacities, since descriptions of large collections can have many added entries.¹⁶

Conclusions

Preliminary results of this study have provided some clues about how users interpret descriptive records, but they have also demonstrated the complexity of producing scientifically accurate measures of patron understanding. It is apparent that a study of this nature requires expertise in a number of fields, including testing and measurement, statistical analysis, and semantics. Ultimately our experience has indicated that we need to select a smaller quantity of particularly important descrip-

tive issues and learn how to create questions that can generate quantifiable results. The survey instrument used in this study is currently being redesigned to focus on one or two of the most important issues described above. However, many other studies need to be developed to address other portions of the descriptive record and many of the other issues described above.

We have also learned a great deal about the relationships between finding aids, bibliographic networks, and online catalogs. One of the most important lessons of our experience has been understanding the proper role of catalog descriptions. The MARC formats were designed to serve as a medium for information sharing at the level of library catalog description. In order to share information about archival materials in MARC AMC format at Arizona State University Libraries, we have adapted some of our descriptive methods in order to achieve effective integration of catalog descriptions. These adaptations were made with the goal of patron comprehension in the context of the integrated information environment. They must also be made in recognition of the role of archival materials within a larger information environment. Most library users do not want or need access to archival materials, but they do need to be able to identify the nature of the materials being described online in order to select resources that really meet their needs. Archivists are beginning to realize that compliance with external descriptive standards is an important part of integrating access to information, but the limitations of this integrated information environment must be recognized as well.

As a result of our experience, we have come to view bibliographic network and online catalog descriptions as an expensive and complex form of "see reference." Although these online systems can indicate that archival materials relating to an inquiry exist, they are not really able to communicate the quality or quantity of information

¹⁵APPM, rule 2.2F, 44.

¹⁶OCLC records are currently limited to 4,096 characters per record. See *Cataloging User Guide* (Dublin, Ohio: Online Computer Library Center, Inc., 1990), 90 [Rev. 9109]. Another solution could be to improve techniques for multilevel description and to break collection descriptions into smaller and more manageable descriptive units.

available in primary sources. The depth of detail and contextual relationships we need to convey to researchers are most accessible through in-house databases and hard copy finding aids, inventories, and collection guides. These systems can be designed with sufficient flexibility to meet the needs of a wide range of formats and access requirements, and they are made available with the assistance of reference archivists. Idiosyncrasies in internal finding guides can be understood by patrons with the guidance of a reference archivist, but assistance with catalog descriptions of archival materials is rarely available to a person accessing an online catalog or bibliographic utility outside of an archival repository. Archivists need to establish reasonable expectations for the user-friendliness of online catalog descriptions and take steps to provide sources

of assistance outside the archival repository.

As users become more familiar with integrated online systems and are accustomed to searching in a multifformat catalog environment, patron understanding may improve without modification of descriptive standards and local practices. However, basic research addressing MARC AMC records could be useful in analyzing the impacts of the expected MARC format integration and in developing new online systems for integrated information environments. To ensure improved patron service in an integrated information environment, archivists, librarians, and other information professionals must study patron interaction with descriptive systems and adapt their systems and practices to serve our user communities better.