

VARIANT RECORD STRUCTURES IN THE CATALOGING OF JUDAICA NON-BOOK MATERIALS: IMPLICATIONS FOR THE PRIMACY OF MARC

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Description: Judaica libraries, archives, and museums have long used a variety of homemade record structures for the cataloging of non-book materials, such as photographs and sound recordings. In the past few decades, MARC (machine-readable cataloging) formats have been developed for non-book media, but the homemade systems persist. More recently, metadata schemata have been developed for all media, posing a threat to the primacy of MARC. The 2001 Conference of the American Society for Information Science and Technology featured a session called “Is MARC Dead?” Denise Bedford questioned whether MARC continues to live in the portal and metadata warehouse environment, and her assessment was negative: “MARC structure reflects the design of a catalog card, with continued elaboration and specification over time. MARC structure does not accommodate or reconcile the challenges of searching across content types, in different types of systems, or different metadata structures When we use the linear or flat structure of MARC records to define our search systems, they are inherently limited.” Bedford believes that “everyone has to be able to create metadata when they create content” and that MARC is too complex for the Web environment. Ironically, the death of MARC is being discussed at a time when Judaica libraries of all sizes and types are beginning to convert their simpler, customized systems to it. These range from university libraries in Israel using the ALEPH system to Judaica school libraries converting their card catalogs to machine-readable form by capturing MARC records from Webpacs.

Background

Bella Hass Weinberg is a professor in the Division of Library and Information Science, St. John’s University, Jamaica, New York. Dr. Weinberg teaches graduate courses and seminars on indexing, thesaurus design, and information architecture. The former editor of *Judaica Librarianship*, she has published extensively on Judaica cataloging. Her recent research focuses on the history of Hebrew indexes.

Judaica libraries, archives, and museums have long used homemade record structures for the cataloging of non-book materials, such as manuscripts, photographs, and sound recordings. In some cases, the homemade systems for these formats predated the development of a cataloging standard; in other cases, the catalogers of these documents were not librarians and were unaware of the standards in this field. Rules for “Works of Special Type” are found in *A.L.A. Cataloging Rules* (American Library Association, 1949) and no doubt in earlier codes as well.

In the past few decades, *Anglo-American Cataloging Rules* (AACR, 1967; AACR2, 1978) and contemporaneous machine-readable cataloging (MARC) formats have been developed for non-book media, but homemade systems persist. For example, the manuscripts catalog published in book form by Yeshiva University (YU) in 1998 has an unusual sequence of data elements, beginning with collation: the number of centimeters, the number of leaves, and the number of lines to a page. Pearl Berger, dean of libraries of YU,

informs me that the author of the catalog claims that this is the cataloging standard used by the Ben-Zvi Institute in Israel (personal communication, June 3, 2002).

The record structure used for cataloging the Photo Archives of the U.S. Holocaust Memorial Museum was described by Sharon Muller (2001) at a recent AJL Convention; the records are machine-readable, but not in MARC format. The sequence of fields after the caption is: Photo Credit, Date, Place, Photographer. . . .

The finding aid of the Yiddish Music Collection of Brandeis University Libraries (1997) is mounted on the Web. Each item is described in four (unlabeled) fields: title, author, imprint, and name of collection. These are certainly not MARC records. The descriptions lack General Material Designations, such as [sound recording] (AACR2, 1978, p. 20), as well as collation, and so the form of the documents is hard to discern: Is *Album Fun Idiste Folksgezangen* a record album or a printed anthology of Yiddish folk songs? The URL (Uniform Resource Locator) of the finding aid provides relevant information—Yiddish sheet music—but some of the items seem to be books, e.g., “*Akhtsik Folks-lider* [Eighty folk songs], v. 2.”

Recently, metadata schemata have been developed for all media, including books, which poses a threat to the primacy of MARC. At the AJL Convention held in June 2000, I described metadata schemes for archival materials and visual resources (Weinberg, 2001). Some of these schemes, such as that of the Visual Resources Association (2002), have fields that are not present in MARC, for example, the one relating to digital rights management. This can be a strong argument for rejecting MARC: it does not do everything you want it to do.

[In a paper presented at the same session as this one, Heidi Lerner and Seth Jerchow (2002) discussed the use of MARC for cataloging digitized Genizah fragments. Information on rights was inserted into MARC field 540, Terms Governing Use and Reproduction Note, even though none of the examples in the documentation for this field are for electronic documents (OCLC, 2002, pp. 5:57 – 5:58). In a personal communication after the presentation, Seth Jerchow told me of plans to add codicological data (e.g., watermarks) to the MARC records. Presumably this would go into the 300 field (Physical Description), even though the MARC documentation for this field says that when the material of a manuscript is paper, it should not be recorded (OCLC, 2002, p. 3:9). Subsequently, in a personal communication dated Aug. 13, 2002, Dr. Jerchow sent me an expanded template of MARC fields, with many codicological data elements coded via subfield delimiters in field 340 – Physical Medium, in accordance with MARC 21 documentation. This template is not just a refinement of the prior edition, but a revision, in that several data elements were transferred from 500 (Note) fields to 300 fields.

These examples indicate that MARC tags can be reinterpreted or “stretched” to accommodate information not traditionally included in bibliographic records. My colleague Dr. Sherry Vellucci points out, however, that even when MARC fields match those of metadata schemes, the former may be less powerful. For example, there is no hyperlink from the MARC 540 field to the site of the organization that controls the rights, but in metadata schemes there is such a link, rendering them interactive (personal communications, Aug. 8 and 14, 2002).]

Is MARC Dead?

The 2001 Conference of the American Society for Information Science and Technology (ASIS&T; formerly ASIS) featured a session called “Is MARC Dead?”. A program with the same title was held in 2000 by the MARC Format Interest Group of the American Library Association, as reported by Alan Danskin (2002, p. 3). According to the ASIS&T abstract (Lavagnino et al., 2001), the session was supposed to have a panel, including a librarian named Ardis Hanson taking the position that MARC lives, but Denise Bedford, Senior Information Officer of the World Bank Group, Information Solutions Group (Bedford, 2001, slide [1]), was the only speaker. [The *Bulletin* of ASIS&T (April/May 2002, p. 6) reports that Denise Bedford is on the Board of Trustees of the Dublin Core Metadata Initiative, which may reflect her anti-MARC and pro-metadata views.]

Dr. Bedford kindly shared her PowerPoint slides with me; they could not be projected at the ASIS&T Conference because of a technical problem. Although I disagree with some of Bedford’s points, I believe she has raised many important questions for the cataloging and metadata communities.

Bedford asks whether MARC continues to live in the portal and metadata warehouse environment. Her assessment is negative: “MARC structure reflects the design of a catalog card, with continued elaboration & specification over time ...” (Bedford, slide [35]). This observation echoes the earlier one of Michael Gorman (the primary editor of AACR2), that the MARC record is a “catalog card on wheels.”

Additional criticisms by Bedford: “MARC structure does not accommodate or reconcile the challenges of searching across content types, in different types of systems, or different metadata structures ...” (slide [36]). Some members of the ASIS&T audience commented that MARC was never designed for searching. My responses to the first point are (a) that format integration *does* facilitate searching across content types—within the MARC structure, and (b) RLIN (the Research Libraries Information Network) has since its inception afforded simultaneous searching of multiple files, such as Books and Scores, in MARC format.

An inconsistency I find in Bedford’s arguments is that after proposing a “metadata warehouse approach to content management,” she advises, “Work from a *type of content* perspective, since core metadata *converge* by type of content ...” (slide [18]). Here she seems to be advocating *separating* records for different media rather than retrieving all media in a single search.

In response to Bedford’s point about searching in different types of systems, we can state that all vendors of integrated library systems accommodate the MARC format. [In a personal communication after the conference (Aug. 1, 2002), Bedford explained that she is talking about unified access to radically different types of computerized systems, including those designed for financial data.] Elsewhere Bedford says, “While [an] online catalog is an *instance* of a search system, it is not a complete representation of a fully elaborated search system” (slide [35]). It is thus clear that she considers the capabilities of integrated library systems limited. Bedford’s criticism that MARC does not reconcile the challenges of searching across different metadata structures is anachronistic: One cannot fault the designers of MARC, who were pioneers in the

1960s, for not envisioning multiple metadata schemes. The developers of MARC were creating the *first* metadata scheme for computer processing. The anachronism is repeated in a question posed by Bedford: “Is MARC suited to its stated purpose as a standard specification for metadata exchange?” (slide [28]). The term *metadata* postdates the development of MARC by about three decades, but has now been applied retroactively as a synonym for *cataloging*.

Another of Bedford’s criticisms that I consider inappropriate is: “MARC doesn’t support attributes we need to work with for different content types—particularly data metadata. ...” MARC is a format for the exchange of bibliographic information; it’s wrong to fault MARC for not being appropriate for statistical data. But Bedford has a point: If you want one metadata schema to handle all content types, including statistical data, MARC is not it; however, I don’t know of any other metadata scheme that fits this bill. Most are designed for a single content type, such as visual resources. The general metadata scheme, Dublin Core, does not have the fields required to characterize statistical data.

Bedford points out, “When we use the linear or flat structure of MARC records to define our search systems [,] they are inherently limited” ([slide [37]]). Here I believe she is referring to the recent series of papers on bibliographic relationships, by Tillett, Vellucci, Leazer, and Smiraglia, which focus on this limitation of MARC. (A 1999 paper by the last two authors cites papers by the first two.) Later, Bedford raises the question, “Can we construct well structured relations in databases using MARC records—relations that contain a minimum amount of redundancy?” (slide [40]). In this question she is no doubt alluding to the “multiple versions” problem, which received much attention at the Bicentennial Conference on Bibliographic Control, held in November 2000 at the Library of Congress. [The *Proceedings* of this conference were published in 2001.]

Complexity of MARC

A significant point made by Bedford is that MARC is too complex for the Web environment. In a paper presented at the ASIS Conference in 1996, I discussed complexity in indexing systems and demonstrated that the complicated systems have been abandoned and replaced by simpler ones (Weinberg, 1996b). A notable example is PRECIS, the Preserved Context Indexing System (Austin, 1984). For a while, the library community considered adopting this system—which was based on Noam Chomsky’s (1957) theory of syntax (i.e., transformational grammar)—as a replacement for Library of Congress Subject Headings, but PRECIS was subsequently abandoned by all bibliographic agencies that had used it (Hans Wellisch, personal communication).

Alan Danskin (2002), writing about ONIX, the metadata scheme developed by publishers, observes, “The booktrade finds MARC too complex ...” (p. 2). There seems to be consensus on this across communities. We may note, however, that formerly simple metadata schemata are moving in the direction of complexity. For example, the developers of Dublin Core have added qualifiers to some of its fields (Dublin Core Metadata Initiative, 2000), thus simulating the fine coding of MARC tags and subfield indicators. I find the long list of ONIX data elements (EDItEUR, 2001) frightening.

It is easy to advocate simplicity in cataloging, but if you want a retrieval system to do powerful things, you need complexity. One cannot retrieve data elements that were not input, or have a computer make distinctions that were not coded by a cataloger. Furthermore, Bedford's proposal that there be a single record structure for all content types implies complexity. In stating "Smart search assumes rich metadata," Bedford (slide [36]) also seems to be contradicting her simplicity argument: rich metadata suggests complexity.

I agree with Bedford that a "Subset of [MARC] attributes typically suffices" (slide [33]). There have been studies demonstrating that many MARC fields are never searched. This could be because many integrated library systems as well as bibliographic utilities do not make it possible to search on many of the fields. As Bedford puts it, "We don't build indexes for most of the attributes" (slide [37]).

Several years ago, when I needed to know what percentage of French books contain indexes (Weinberg, 2000, p. 3), RLIN staff did a customized search for me of the Bibliothèque Nationale records, identifying those that had the string *index* in the note field (MARC tag 5XX), because a regular RLIN user cannot search the note field directly. Even RLIN staff could not exclude fiction from the search, as this genre is coded in a fixed field (008).

Bedford suggests that we "Define [a] set of *core metadata attributes* (i.e. super classes) to which existing metadata are mapped" (slide [19]). This implies a least common denominator—the simplest set of fields. Reflecting AACR (1967) and AACR2 (1978), the MARC format retains the concept of *main entry*, which cannot be mapped to any field in another metadata scheme. [In a personal communication (Aug. 5, 2002), Dr. Sherry Vellucci notes that if role indicators were used in both MARC and Dublin Core, such mapping would be possible. In MARC, role can be recorded in a subfield; in Dublin Core, role can be indicated in a qualifier.]

Alan Danskin (2002) has an excellent statement on the problems of mapping from one format to another (p. 2):

Format conversions cannot convert every element in every record accurately. Sometimes it isn't possible to map from one format to another because a data element in format x doesn't exist in format y or has a slightly different definition. Most of the time this doesn't matter, but it does mean that ... cataloguers have to check and correct or add data. In addition[,] conversion programmes ... require a lot of maintenance because formats change constantly.

Every Author a Cataloger

Bedford criticizes the complexity of MARC because she believes that "everyone has to be able to create metadata when they create content" (slide [45]). It's easy to say that all authors should be able to catalog their works, but some people—who may be very intelligent—do not have a cataloging sense. A case I recall comes from the days when I was working at YIVO, and the dean of the Max Weinreich Center for Advanced Jewish Studies asked me to train the graduate students to catalog photographs for a slide bank. I designed a worksheet with various fields and

asked the designated student to write subject descriptors in one of the fields. For a picture of a synagogue, she assigned the descriptor “Rear View,” omitting the concept of synagogue. I said to the dean, “You must hire a librarian for the Slide Bank; this student has no cataloging sense.” The student went on to earn a doctorate in history; her problem was not a lack of intelligence. Like art or music, cataloging and indexing require special talent.

One more example, from a non-Jewish domain: A number of years ago I was asked to index a multi-author theology book (Bulman & Parrella, 1994). The primary editor thought he was assisting me by asking the authors to highlight the “keywords” in the galleys of their chapters. Some of the authors had terrible indexing judgment; they highlighted a general term repeatedly and omitted many important specific concepts. Nancy Mulvany, in her manual *Indexing Books* (1994), has written about the uselessness of “author highlights”: “Some authors will be far too detailed, while others will highlight only a few terms ...” (p. 144). Bedford says that “Quality control will be an important aspect” of author-provided metadata, but as indexers know, it takes longer to revise a bad index prepared by an author than to create one yourself from scratch.

In sum, the idea that everyone who creates content for the Web is also able to catalog it is flawed. The rate of consistency among indexers and catalogers is known to be low, only about 25% (Saracevic, 1989, pp. 106-107). This statistic applies to trained professionals. I imagine that the percentage for people untrained in cataloging or indexing would be much lower. Those who search the Web want to retrieve all the relevant sites and only the relevant sites after inputting one or two keywords to a search box. In other words, users want 100% recall and 100% precision. How can we expect good search results with subject metadata input by amateurs who do not understand the concepts of controlled vocabulary or specificity?

Alan Danskin (2002, p. 2), in discussing ONIX, the metadata scheme created by publishers for books, suggests a future scenario:

It could potentially mean that some of the descriptive component of cataloguing is “outsourced” to the book trade, allowing libraries to focus on the value added intellectual processes of subject indexing and collocation. There is some evidence ... that [web booksellers] ... would be interested in the value-added subject, authority and classification data which is provided by libraries.

Publishers and bookdealers are not claiming expertise in subject analysis, and, in contrast to Bedford, surely would not claim that all authors are capable of providing metadata. I find the assertion that all authors can be catalogers insulting to our profession. It reminds me of the title of a book that my husband, a pediatric surgeon, jokingly says he plans to write: *How to Take Out Your Own Appendix*.

Irony of the Timing for Judaica Libraries

Ironically, the death of MARC is being discussed at a time when Judaica libraries of all sizes and types are beginning to convert their simpler, customized systems to this standard bibliographic format. Beginning at the high end of the size range, we note that the ALEPH system, and university libraries in Israel that employ ALEPH, have adopted MARC in recent years. The key

feature of the original ALEPH system that was touted in the 1980s is that a library could select any fields it wanted to create bibliographic records for any type of document (Levi, 1984). The record structures created by early ALEPH users were often simpler than MARC's, which meant that the records could not readily be added to a MARC database. Conversely, MARC records could not easily be dumped into these simpler record structures.

At two recent AJL Conventions, Elhanan Adler (2000; 2001) described the difficulties of conversion to MARC in Israel. The changeover from the early ALEPH structures to MARC is far from complete: in a paper published in *International Cataloguing and Bibliographic Control*, Chaim Seymour (2001, p. 63) notes that "Most Israeli libraries operate in a non-MARC environment, using two letter field codes, which are a lot more general than the MARC fields in most cases."

The original ALEPH philosophy is echoed in Bedford's statement that an alternative to MARC would be "subsets [of attributes] defined by user communities rather than prescribed by [a] single authority" (slide [42]). That is exactly what was done in Israel by the original ALEPH users: they defined a subset of standard cataloging fields to describe the documents in their collections.

At the small end of the size range are Judaica school libraries, which, after years of simple cataloging, have recently embraced MARC, Library of Congress Subject Headings, and national authority files in order to be able to derive catalog records from OPACs (online public access catalogs) mounted on the Internet. Bedford points out correctly that "MARC is not the attribute values it uses, i. e. AACRII, LCSH, LC Class Scheme, Name Authorities, Subject Authorities" (slide [24]). I believe that Judaica school libraries are more interested in the values than in the MARC tags, but both elements are bundled together in OPACs.

The lengths to which small Judaica libraries will go to avoid original cataloging, and to avoid paying the fees of a bibliographic utility, are amazing. The software and procedures used by such libraries were described most recently by Joyce Levine (2002) at a Cataloging Workshop of the New York Metropolitan Area Chapter of AJL. [A summary of her paper is in Lovins (2002).]

Small libraries are not the only ones trying to save money by deriving catalog records. Alan Danskin notes (2002, pp. 1-2) that "The British Library. . . does not have unlimited resources" and therefore uses "derived or copy cataloguing." He points out that "The efficiency of derived cataloguing depends upon the capability to reuse records with minimal intervention. . . . This in turn is dependent on shared content standards" (p. 2).

Joyce Levine (2002) expressed regret for once having modified headings that were theologically objectionable, such as "Bible. O. T.," because this impeded the ability to contribute her Judaica school library's records to a union catalog; she subsequently changed her local headings to match those of the Library of Congress. This point is brought out in Daniel Lovins' summary of her paper (2002, p. 5). Levine's philosophy of conformity contrasts with that of Israeli university libraries, which are modifying both the structure and content of MARC records; Adler (2000, p. 99, slide 3) notes the changes in filing indicators as well as the decision to put Hebrew vernacular data in regular MARC fields rather than in 880 fields for parallel non-Roman data.

This brings to mind the radical modification of LC Classification for Judaica in Israel (previously noted in Weinberg, 1987, p. 145), although the librarians implementing these changes claim to be following a standard.

To summarize this section of the paper, it is ironic that Israeli university libraries and American Jewish school libraries are just beginning to adopt MARC as the general library and information science community is asking the question “Is MARC dead?”.

Predictions

I don't think anyone predicts that MARC will disappear as a record structure for the cataloging of books; there is simply too much legacy data, that is, millions of bibliographic records in this format, for printed materials. OCLC and RLIN have large numbers of MARC records for other media as well. [In a personal communication (Aug. 5, 2002), Dr. Sherry Vellucci reported that on July 1, OCLC implemented a new database structure called Connexions, which features crosswalks (mapping) between MARC, Dublin Core, and the Resource Description Framework; the last-mentioned (RDF) is based on XML, which is discussed below.]

Bedford asks: “Are there opportunity costs associated with continued use of the MARC record format?” (slide [29]). My interpretation of the question is: Is it a bad idea to stick with MARC just because we have a lot of bibliographic data in this format? Although Bedford's question is valid, I believe that libraries will stay with the MARC Format for the foreseeable future, because they are inherently conservative. [Dr. Sherry Vellucci adds the observation that current vendor systems are programmed to use MARC, which is another reason that this format will persist (personal communication, Aug. 5, 2002). For vendors to reprogram their systems, there would have to be a critical mass of libraries using another format, as well as a financial incentive (S. Vellucci, personal communication, Aug. 8, 2002).]

Under the heading “Opportunity costs,” Bedford poses the question: “Does MARC make information systems easier to use & less expensive to operate?” (slide [44]). My answer to both clauses is “No.” MARC is not easy to work with, and it is expensive for the programmers of both bibliographic utilities and integrated library systems to keep up with the changes to MARC tags.

Also under the rubric “Opportunity costs,” Bedford asks, “Can the MARC format 520 or 505 accept automatically generated summaries?” (slide [43]). Here she is (surprisingly) conflating the tags and the values that complete the fields, as well as violating her principle, “ ‘Tag talking’ is a luxury we cannot afford” (Bedford, slide [45]). [520 is the MARC tag for “Summary, Etc. Note” and 505 is the tag for “Formatted Contents Note” (OCLC, 2002).] There is something anthropomorphic about Bedford's question, as if a MARC record evaluates the data input to it. Would that it could automatically correct Hebrew romanization!

In any case, my answer to the question (Bedford, slide [43]) is: Sure, an automatically generated summary can be input to a MARC record, but the state of automatic abstracting is not advanced. The main techniques are: (1) extraction of sentences containing frequent words in a document, which results in an incoherent abstract, and (2) extraction of the first paragraph of a document (Weinberg, 1996a, pp. 16-17).

As for Bedford's next question (slide [43]), "Can I integrate a fully elaborated thesaurus into a MARC-grounded search system?," I can say "Yes" with authority, as the chair of the committee that developed the NISO thesaurus standard (1994). First of all, the MARC format was modified, at the urging of the staff of the *Art & Architecture Thesaurus*, to add a tag (654) for Subject Added Entry—Faceted Topical Terms, which can be assigned instead of Library of Congress Subject Headings (LCSH). Current MARC documentation (OCLC, 2002, p. 6:37) does not indicate when the 654 tag was implemented, but the *Guide to Indexing and Cataloging with the Art & Architecture Thesaurus* (1994) reports that "The Field Guide to USMARC Coding was produced in 1989" by an AAT committee (p. 51; italics in original). Thus using thesauri other than LCSH with MARC is not a new idea. Second, good online catalogs integrate the cross reference structure of LCSH, and there is no theoretical reason why integrated library systems should not be able to display the semantic relationships coded in any thesaurus.

Bedford says the "Portal environment expects XML transformation" (slide [32]), but I have read several predictions that eXtensible Markup Language will not take hold quickly because HTML, HyperText Markup Language, is employed in millions of Web sites—the legacy data argument all over again. At the conference of the New York Chapter of the American Society of Indexers held on June 14, Dave Ream (2002, p. 5) gave a succinct explanation of the differences among the major markup languages: SGML (Standard Generalized Markup Language) codes the structure of a document; HTML codes the display format; and XML does both. For example, in XML, the level of a heading is indicated as well as that it is to be displayed in bold type. [Dr. Sherry Vellucci notes that HTML also codes document structure to some extent (personal communication, Aug. 8, 2002).]

The aforementioned predictions regarding XML are general, but Alan Danskin (2002) made a specific statement on this markup language with reference to the library community: "But it [XML] isn't here yet[,] and the infrastructure to support it has yet to develop. For this reason it is still too early to commit ourselves to XML ..." (p. 3). Baruth (2002) writes in the June/July issue of *American Libraries*, "... for many librarians the advantages of an XML-based local library system seem vague and not worth the cost to change" (p. 58). She also notes, "There is the fear that XML will not survive, leading us down an endless migration path" (ibid.).

Setting aside the question of widespread adoption of XML, ASIS&T audience members commented to Bedford that this new markup language does not solve the structural problems of MARC, as XML is only an encoding technology, and no more efficient than MARC. [Dr. Sherry Vellucci observes that by itself, XML is just an encoding technology, but when it is used in conjunction with the Resource Description Framework (RDF), XML becomes more powerful. RDF may be compared with the type of database structure that vendors use and their decisions on what fields get indexed (personal communication, Aug. 5, 2002).]

I am not an expert on XML, but I can interpret a thesaurus encoded in this markup language. [Marjorie Hlava, President of Access Innovations, kindly sent me one (email, Dec. 20, 2000).] The standard BT, NT, and RT (Broader Term, Narrower Term, and Related Term) thesaurus codes are used, only they are enclosed in the angle brackets and slashes characteristic of HTML, e.g., <NT>Classification</NT>. This structure brings to mind the Yiddish proverb, "*Di zelbe yente, nor andersht geshleyert*" (The same old lady, only wearing a different veil).

Although I am not impressed with XML, Baruth (2002) makes a strong case for its adoption by librarians: “Our unique standards [i. e., MARC] could increasingly isolate us, leaving us unable to easily communicate our needs to others in the information industry or make use of their off-the-shelf XML-based products ...” (p. 58).

Bedford posed the question “Is MARC dead?” in her capacity as the Senior Information Officer of the World Bank, an enormous organization that generates numerous reports and databases (slide [10]). She is right that MARC is not designed to cover all the types of content in her organization, but the question “Is MARC dead?” can be answered in the negative for smaller Judaica libraries that catalog primarily books. Even Dr. Bedford states that “MARC is alive in ILS [integrated library systems]” (slide [49]).

Bedford’s question is highly relevant to large libraries that are responsible for cataloging their institution’s archives, as well as manuscripts and visual resources, and which have to see to it that all these materials are readily searchable through their institution’s Web site via a single interface. Baruth (2002) says, “... many [libraries] are retaining MARC and AACR2 for the OPAC but moving to other metadata standards for e-resources” (p. 58). Web sites have been cataloged in MARC, but the percentage is minuscule, since this work is largely a volunteer effort of librarians. Elhanan Adler’s paper presented at the 2001 AJL Convention proves Baruth’s point: the metadata for a digitized map (Adler, 2002, slide 26) does not use MARC tags, but rather two-letter codes, such as AU for author.

The future seems bright for human catalogers and indexers. If MARC dies, our skills will be applied to another record structure, which will probably be modified continuously, just as MARC has been. Alan Danskin (2002) says, “It seems quite possible that MARC and XML will coexist . . .” (p. 3). Chaos and diversity will continue to reign in the metadata community.

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The following list includes all the items in the Annotated Bibliography distributed at the Convention, as well as additional references to document statements in this paper.

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