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# Moving Beyond MARC: Initiating and Embracing Change in a Traditional Technical Services Department

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[. . .]" (Johnson, 22). Electronic journals may or may not be part of the plan.

The primary forces influencing change in academic libraries are costs, space issues, technology, and patron demand. These factors have changed academic libraries' priorities for providing journals needed for university research and curriculum support, the notion of an academic library serials collection, and how collection development is done. Libraries continually search for ways to expand information access, try to anticipate needs, and also remain within budget — a precarious balancing act considering the volatility of technology. "Predicting the future is risky, especially in times of rapid change. [. . .] Suggesting how librarians and their libraries might and should seek to shape their roles in that hazy future is a combination of guessing and hoping, based on what is known now" (Johnson, 16). So, predicting the future of serials collection development would be difficult. However, in the face of increasing costs and patron demand, many academic libraries will continue to provide more electronic journals, but will likely continue to have print journals for years. Implementing electronic journals involves other issues and affects all areas of the library, and to be successful, staff members need to be involved and integrated in their efforts. The serials collection of the future will not be defined as much by location, format, and ownership as by access and function. The academic library is no longer just a building housing print journals and other resources, but is a gateway to resources designed to serve the university community.

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# Moving Beyond MARC: Initiating and Embracing Change in a Traditional Technical Services Department

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This article considers the process of integrating non-MARC metadata into our technical services department. We discuss the impetus for moving beyond MARC and the value traditional catalogers bring to the table. Sharing our strategies for start-up and sustainability, we confront the significant challenges inherent to this kind of integrative effort — from digital project and schema selection to getting traditional catalogers on board to final workflow and tool design.

## Why Integrate Metadata Into Technical Services?

At the **University of Tennessee (UT) Libraries**, the impetus for integration arose out of both internal and external cues. Locally, our Digital Library Center (DLC) redefined its mission, placing emphasis on digitizing materials from our own Special Collections Library. This redefinition meant a move from a project-centered, stop-and-start workflow, where seasons of demand ebbed and flowed; to a constant influx of materials being processed and digitized for online delivery. This shift in priority created an ongoing need for the cataloging of digital materials from our own Special Collections. This priority shift resulted in a demand to train permanent personnel, rather than relying solely on student and grant-funded personnel.

Externally, we saw our peers grappling with the same dilemma. A review of the literature reveals several factors that warrant the incorporation of non-MARC metadata work into technical services:<sup>1</sup>

- Decreased need for cataloging print resources. As digital resources increase, the ones in print decrease. The cooperative cataloging program and surge in outsourced cataloging also contribute to reduced demand for original cataloging of print resources.
- Increased allocation of original cataloging to paraprofessionals. In the last two

decades the organizational patterns of technical services departments have changed. Original cataloging is increasingly delegated to paraprofessional staff, leaving less material for professional catalogers to catalog.

- Exponential increase in digital content. The new demand for organizing and retrieving these materials increases the need for original cataloging of digital data. Additionally, cataloger job descriptions now routinely include metadata duties.
- Rapidly changing technology. To keep skills of technical services staff current and competitive, we must face the new challenges of the digital age. Cataloging departments need to keep up with the latest trends in organizing information.

## Why Bring Catalogers on Board?

Given their traditional role of creating bibliographic records, catalogers are uniquely suited to create descriptive metadata. With a little training in new descriptive schemas, their expertise in bibliographic description in the MARC world readily applies to cataloging digital objects in other schemas.

The catalogers' transition to non-MARC metadata schemas is coherent with existing commitments because metadata aligns with catalogers' core mission. Catalogers organize and describe information by assigning access points. As **Boydston** and **Leyson** state: "Metadata creation is a natural extension of the catalogers' existing skills, abilities, and knowledge."<sup>2</sup> While the content organized and offered by libraries is increasingly digital in format, the cataloger's role remains the same: to facilitate access to intellectual content.

Catalogers bring precision and speed to the metadata production process, accelerating the whole cycle of digital collection creation. At UT, processing materials for digital delivery begins in Special Collections and the DLC with (1) the creation of collection-level Encoded Archival Description (EAD) records; (2) selection of materials for digitization; (3) digitization and administrative tracking system entry; and (4) transcription of textual materials. (See Figure 1, page 30.) Once these processes are completed, the digital surrogates,

*continued on page 30*



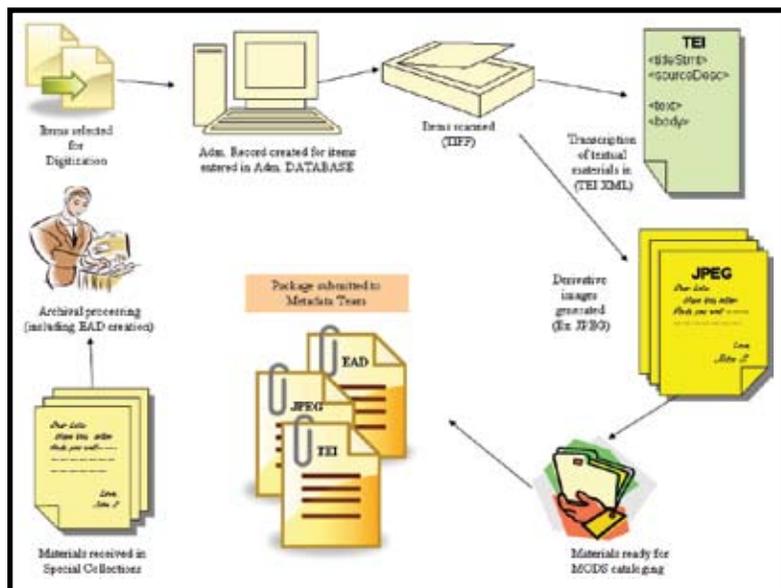
administrative records, and transcriptions (if applicable) are transferred to the Metadata Team in the Technical Services department, where item level Metadata Object Description Schema (MODS) records are then created. By parsing out these duties appropriately, we are able to capitalize on the expertise of our various library departments' personnel: from archival description to scanning to descriptive cataloging, and thereby compress the time elapsed from initial processing to delivery in a digital collection.

### Schema and Project Selection

Our digital collections currently employ a number of metadata schemas including Qualified Dublin Core (DC), EAD, Text Encoding Initiative (TEI), MARC, and MODS. While EAD is used for collection-level description in our Special Collections, we chose MODS as the schema appropriate for item level cataloging of these rare materials due to the diversity of their content, genre and resource types; additionally, MODS is rich enough to support the many access points and high level of granularity we chose to express in our records.

Under the supervision of the Metadata Librarian, the DLC and associated digital project grant staff had already begun creating MODS records for most of our digital content. The similarities between MODS and MARC created a unique opportunity for catalogers to carry over their existing skills of bibliographic description to a rich metadata format. MODS also offers other advantages that prove useful to our project. Beall summarizes these advantages: (1) MODS is highly connected to AACR2 and LCSH, but at the same time is flexible; and (2) associated with the library domain, MODS offers a high level of interoperability, is strongly supported by **Library of Congress**, is highly adaptable, and can handle most metadata functions.<sup>3</sup>

**Figure 1**



## against the grain people profile

Catalog Librarian, University of Tennessee, Hodges Library  
1015 Volunteer Blvd., Knoxville, TN 37996-1000  
<mveve@utk.edu>

### Marieelle Veve

**BORN & LIVED:** Born and raised in San Juan, P.R.; lived in Baton Rouge, New Orleans, and now in Knoxville.

**EARLY LIFE:** I'm still in my early life!!

**FAMILY:** Two dogs (Oprah & RoJo).

**EDUCATION:** B.A. Geography, **University of Puerto Rico**, 2000; M.L.I.S., **Louisiana State University**, 2002.

**FIRST JOB:** Cataloger, **Tulane University**.

**PROFESSIONAL CAREER AND ACTIVITIES:** Started as a student worker in an academic library for five years. Then realized I wanted to pursue this career professionally, so decided to get the MLIS. Later, worked at **Tulane University** for three and half years as the Latin American Catalog Librarian. Currently work as the cataloger for the **University of Tennessee Libraries**.

**IN MY SPARE TIME I LIKE TO:** Spend time with my dogs, watch foreign movies, travel.

**PET PEEVES/WHAT MAKES ME MAD:** Cruelty to animals, rudeness.

**PHILOSOPHY:** Do to others as you would have them do to you.

**MOST MEANINGFUL CAREER ACHIEVEMENT:** Becoming a PCC/NACO trained cataloger and having the opportunity to apply this knowledge in organizing digital collections.

**GOAL I HOPE TO ACHIEVE FIVE YEARS FROM NOW:** Getting more immerse in the cataloging and organization of digital materials, having more material on the topic published.

**HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS:** Cataloging staff will get more involved in metadata initiatives to help catalog the increasing volume of digital resources. 🌱



### Team-building

With a well-defined digitization project and rich metadata standard in place, we were ready to invite Technical Services team members to contribute their metadata expertise to building our digital collections. Prior to this integration effort, however, metadata was coordinated by the Metadata Librarian in the DLC. Most technical services staff had little to no experience with non-MARC metadata standards and were also unfamiliar with the Metadata Librarian. To build a successful team of metadata creators in the Technical Services department, we employed the following strategies:

**Building buy-in and ownership.** To prepare the department for the integration effort, the Metadata Librarian gave a short presentation about the opportunity to become part of a metadata team. During this time, she defined the project and its mission, demonstrated the tools used for cataloging, as well as the digital collection that exemplified the end product. The introduction was aimed to make the department aware of the opportunity, ease their fears about metadata by illustrating the many commonalities with MARC cataloging, and raise curiosity about the project. The department members were invited to participate in the project on a volunteer basis. This element of personal choice allowed us to form a metadata team that embraced our mission and took ownership of the project together.

*continued on page 32*

**Team building and rapport.** After volunteers were identified, the Metadata Librarian held a brown bag session for the group to discuss the upcoming project in an informal setting. Basic questions were addressed, ranging from “What is metadata?” to “What’s expected of me?” Volunteers were also given an opportunity to ask questions and voice concerns. Additionally, they were invited to share their preferences regarding the structure of the upcoming training sessions. Information gleaned from the brown bag shaped the design of the training.

### Training Content and Design

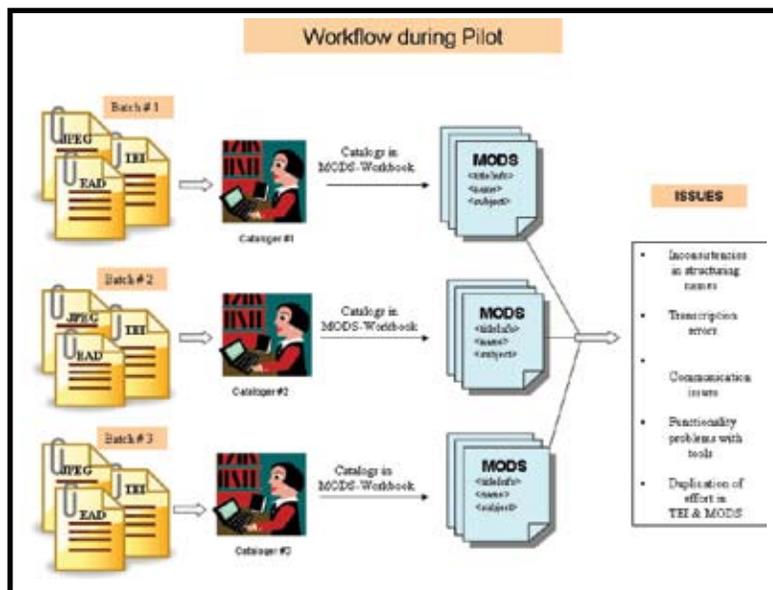
Although the existing skills and expertise of catalogers transfer well to non-MARC metadata production, additional training in the new metadata schemas was necessary to fully prepare catalogers for the job.<sup>4</sup> Foremost, we needed to acquaint the staff with the MODS schema and our local application of its elements. We also introduced EAD and the TEI, since the item-level cataloging would draw context and detail from records in both formats. Additionally, the team needed to learn three new tools for MODS cataloging: an XML editor, as well as the tools developed in-house for our digital collections’ needs, the Administrative Database and UT-DLC MODS Metadata Workbook. The tools filled the following functions:

- The XML editor facilitates navigation of TEI encoded transcriptions of textual materials.
- The Administrative Database tracks administrative data on all digital content submitted for review and consideration for inclusion in our collections. It generates unique file names for each digital object as their associated XML records, the values of which are then transferred to our Metadata Workbook automatically when the item is cataloged.
- The UT-DLC MODS Metadata Workbook is a Web form for the input of metadata content. The workbook then generates valid MODS XML markup compliant not only with the MODS schema declaration, but also with our local MODS application rules. The workbook also provides quality control measures and help features. For instance, fields with controlled values have selection boxes providing simple entry mechanisms for catalogers and ensuring that only accepted values are entered. Additionally, it supports interoperability by ensuring that authorities are indicated when used, and controlling the formatting of certain fields such as date fields that tend to vary wildly across institutions.

Since the team expressed a strong preference for learning by doing, the Metadata Librarian constructed the training to emphasize hands-on practice in creating MODS records. Over the course of a single week, the team met for approximately 12 hours of workshop sessions which introduced the standards, resources, and tools catalogers would use on a daily basis to create MODS records for Special Collections materials. Each session featured a short presentation (about one third of the session) introducing a new standard, resource or tool. The presentation was then followed with hands-on application by the team members for about two thirds of the session. The following day’s session reviewed the previous day’s content and then followed the same pattern of presentation, then practice.

While the training equipped catalogers with a new toolset for creating MODS records, it also applied existing knowledge that carried over from traditional cataloging work. Among the standards and tools that are shared in the processes are MARC Genre and Relator lists, Library of Congress subject headings, Library of Congress name authority files, and OCLC Connexion. So the team was not entirely in new surroundings as they transitioned into non-MARC metadata. Much of what they already knew came to bear on their MODS record creation.

Figure 2



### Project Launch

After completing the training, we launched the integration effort with a two-week pilot phase in which team members practiced the process, raised questions, and identified glitches in the workflow. During the pilot phase, each metadata team member created MODS records for a small group of letters from a single archival collection. Since we were incorporating the non-MARC metadata work into their other duties, we kept each team member’s assignment small. Each received image files and TEI-encoded transcriptions for only twelve items. (See Figure 2 above, for representation of the workflow at the outset of the pilot project.)

### Problems and Solutions

Through the pilot project, we discovered a number of issues that needed to be addressed before moving into production. The significant issues were: (1) functionality problems with tools; (2) duplication of effort in TEI Header and MODS records; (3) errors in TEI; (4) tracking and communication issues; and (5) inconsistencies in structuring names not in the Library of Congress Name Authority Files (LCNAF). Coping with the first three issues was relatively simple. Tool enhancement requests were submitted to the developers and corrections were made almost instantaneously given the high priority of the project. We addressed the duplication of effort by scaling down the TEI Header to a minimal element set at the time of transcription by student workers and then developing a crosswalk mapping MODS into TEI Header. A transformation protocol for generating was developed and applied to all new TEI records after they were cataloged in MODS. The much richer descriptive record of the MODS then populated the TEI Header for delivery and preservation purposes.<sup>5</sup> To deal with transcription errors, we gave metadata team members the responsibility of editing the TEI as necessary. To facilitate communication, we established a reporting process for issues with the tools and guidelines, as well as enhancement requests. The tracking document is a simple Excel sheet where the metadata team logs issues, questions, and suggestions for enhancing tools and revising procedures. The fourth problem, however, proved the thorniest. Since team members were describing letters from a single archival collection, the pilot provided a unique opportunity to confront the problem of recurring names without LCNAF. Each cataloger might create a different form for the same heading, creating a significant problem in facilitating access to our digital materials. This problem and our solutions are discussed in greater detail below. (See Figure 3, page 34, for representation of workflow after changes made as a result of lessons learned in pilot phase.)

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### Coping with the Problem of Authority Control

Our initial approach to representing personal names in our MODS records was to follow the form of the name established in LCNAF. If names were absent from the files, we simply copied the names in the form found on the piece. We did not attempt to create local or national authority records for names not already included in LCNAF. One-of-a-kind, unpublished materials represent a huge challenge to authority control since they may carry little to no biographical information, only scattered pieces of information here and there about the creator's name, and associated dates and locations. The rigorous research necessary to pin down obscure names in an authoritative form was too costly and time-intensive for us to support, increasing the resources poured into digital collection creation to an unsustainable level and slowing down the productivity of a unit with tight deadlines.

An important insight gained from the pilot is that even though authority control for unique materials can be difficult and costly, it is a critical measure of quality metadata.<sup>6</sup> The high value our catalogers place on authority control caused us to re-think our approach and

find a middle-ground solution, which eventually led our team to create both local authorities and national authority records.

After deciding that authority control was not a mere luxury in our project, but a necessity, we decided to make it happen. The feasible approach involved performing authority control first (before items were transferred to metadata team for MODS cataloging) and only by one person to avoid any future inconsistencies. The timing of this project coincided with the new hiring of a Catalog Librarian who had previous experience with creating National Authority Cooperative Program (NACO) authority records, so we logically assigned the task to this person.

The librarian first searched for the headings in LCNAF. If names were not represented, then she had to form a viable solution that could balance quality with production. Instead of trying to establish a heading for each single name found in the TEI files, the librarian created national authority files only for names mentioned in at least three different letters. Remaining names were given local authority forms which we tracked in a simple Excel file.

### Conclusion

The UT experience illustrates that as the demand to deliver digital content surges, traditional cataloging units are

presented with the opportunity to expand and apply their metadata expertise beyond MARC. Embracing change by learning new metadata schemas keeps cataloging personnel vital in a world of increasingly digital content. While the transition beyond MARC is a logical one, it brings unique challenges, from team building to training to workflow design. The strategies and processes presented here can inform metadata integration efforts in other traditional technical services departments. 🐷

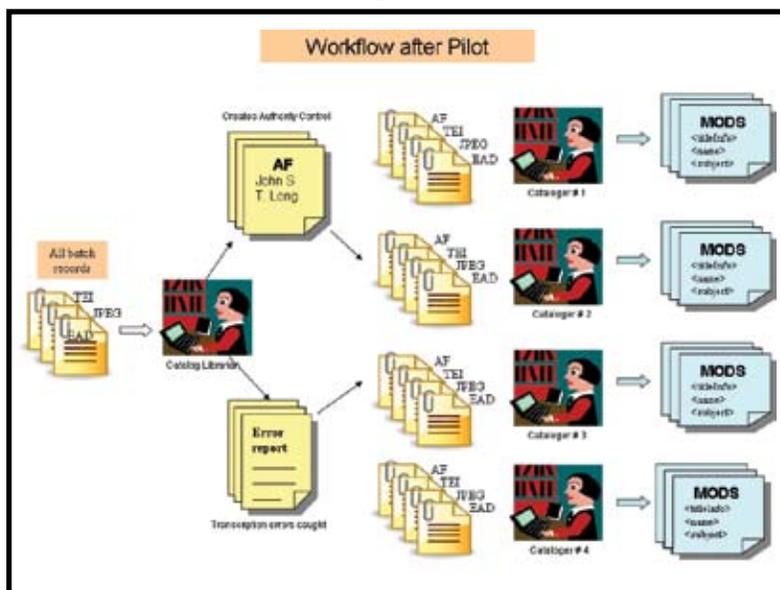
### Endnotes

1. See bibliography for a sampling of literature.
2. **Boydston, Jeanne M. K., Leysen, Joan M.** 2006. "Observations on the Catalogers' Role in Descriptive Metadata Creation in Academic Libraries." *Cataloging and Classification Quarterly* v 43 no2: 3-17.
3. **Beall, Jeffrey.** 2007. "Discrete Criteria for Selecting and Comparing Metadata Schemes." *Against the Grain* v 19 no1: 28-31.
4. **Boydston and Leysen's** survey suggested that even though "experienced cataloging staff are able to make the transition easily from traditional cataloging to metadata creation, they still need further training in metadata schemas and software programs. This additional training can be obtained from metadata workshops, professional reading, and consulting with others." (P. 5)
5. Our delivery system requires TEI XML with descriptive header to index full-text.
6. As **Boydston and Leysen** point out, "Catalogers understand the importance of uniformity and consistency of authority control and the benefits of cross referencing from alternative forms. Catalogers recognize the importance of controlled vocabulary and its relationship to keyword searching and information retrieval." (P. 8)

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Figure 3



### Rumors from page 12

Kathy Weiss has been appointed Vice President, International Sales, for Ingram International, Inc. As Vice President of In-

ternational Sales for Ingram, Ms. Wiess will be developing new international business for Ingram Book Group as well as helping to create new opportunities for other Ingram businesses. She has spent 16 years with Random House and most recently served as Senior Sales Director of the International Division. At Ran-

dom House, she was responsible for selling the publishing divisions and the distribution clients of Random House to all markets outside the US and Canada. Ingram's operating Units include Ingram Book Company, Inc., Ingram Periodicals, Inc., Ingram International, Inc.,

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