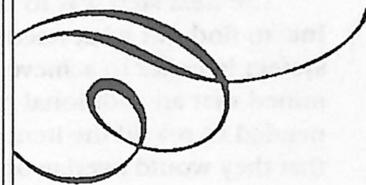# RETROSPECTIVE BAR CODING OF
GOVERNMENT DOCUMENTS

by Rebecca H. Byrum

INTRODUCTION

The Henry F. Moellering Memorial Library on the campus of Valparaiso University (VU) was built in 1959. It had been expanded and remodeled over the years; however, it became clear in the mid-1990s that the library building could not be effectively used to lead the university into the 21st century. Planning for a new building began in 1999 and, with a generous gift by Jay and Doris Christopher, the new building became a reality. Groundbreaking for the Christopher Center for Library and Information Resources took place in April 2002, and the building opened its doors in August 2004.

One of the challenges in planning the building was how to increase space for books while retaining the building footprint within reason, thereby keeping the building costs down. After much discussion about the pros and cons of compact shelving, library administrators decided that the new building would include an automated storage and retrieval system (ASRS). The ASRS[1], a storage system of 1,872 automated bins, would hold all bound periodicals dated before 2000 and most of the government documents. In order for these items to be stored in the ASRS all would need a record in Galileo, the library's Innovative Interfaces catalog, and a bar code. At the time of the groundbreaking in 2002, statistics showed that the library had 63,899 paper government documents and over 656,000 microfiche, almost all of which were not bar coded.

BACKGROUND

Moellering Library at Valparaiso University became a federal depository library in 1930 and is one of six depositories in the First Congressional District of Indiana which includes VU's Law Library. Even though undergraduate enrollment is under 4,000, Moellering's government document selection rate was near 70% in 1997. This resulted in a large collection of documents that was not well suited to the needs of the university or community and was difficult to use.

For years, a major obstacle to using the documents was that most of them were not accessible to the public through the card catalog. Shortly after VU launched Galileo in 1991 the library began receiving monthly bibliographic records from Marcive, Inc., for the documents, including retrospective records back to 1985. While this helped with accessing the documents, it also caused confusion because records added through the Marcive monthly loads, as well as the retrospective, were never checked against the collection to see what was actually received nor were efforts made to catalog these documents for which records were never received. Another problem was that catalog records did not always reflect the actual format of the document on the shelf. Sometimes these errors were discovered and corrected but many times they were not.

Building the Christopher Center and the ASRS meant that the documents collection would need to be bar coded. Although the prospect of completing the project seemed daunting, it was clear that several other benefits would be realized. First, by making sure that every document on the shelf was represented in Galileo, the collection would be inventoried– a first time process for the documents. Once the bar coding of the collection was complete, Galileo would be cleaned up by deleting all of the records for documents that were never received. As part of the project, the collection would be weeded since items without bar codes would need to be either cataloged or discarded. Finally, during the process of checking documents without bar codes and bar codes without documents, all of the location code errors would be corrected.

PREPARATION

The library decided in its early planning that the Christopher Center would not have a physical shelf list for any collection in the new building, so the library subscribed to Marcive's Shipping List Service in March 2000. As building plans progressed and the need arose to bar code the entire documents collection, we contracted with Marcive to receive smart bar codes (bar code labels with SuDocs number and title) for all new receipts. For the remaining documents, the library contracted with Marcive to export the document item

records, have Marcive generate smart bar codes and labels, and export the records back into the online catalog.

The next step was to talk with Innovative Interfaces, Inc. to find out what needed to be done with the system in order to achieve this goal. Innovative determined that an additional profiling program would be needed to reload the item records into the catalog so that they would overlay onto the correct bibliographic records. Before exporting the item records to Marcive, sweeps of the catalog were made to correct location codes before the bar codes were produced. After cursory weeding, some ranges of SuDocs numbers were excluded from the project because the documents were to be eliminated from the collection as the SuDocs numbers were obsolete or the documents no longer fit the collection development plan.

PRODUCING THE BAR CODES

Since the government documents are housed in three distinct collections by material type (paper, microfiche, and disk), it was important to have the bar codes printed in SuDocs order and separated by material type. Using the List Function in Galileo, lists of item records were created for each material type and sorted by location code, call number, and bar code number. Records with bar code numbers were removed from the list. The lists were then sorted by SuDocs number so that the bar codes would be printed in order of shelf arrangement. In May 2002 these lists were sent to Marcive by File Transfer Protocol (FTP). Marcive generated 13-digit Codabar bar codes with smart labels and FTPed the file back into the OPAC.

In reloading the item records into Galileo, several small test batches were run to make sure that the item records would overlay onto the correct bibliographic records. Although the tests worked well, it was discovered that the reloading process ran too fast for the indexing. Innovative Interfaces facilitated the process by adding to Galileo a loading function with a slower speed so that the records could be overlayed properly. This process was accomplished during three nights while the library was closed.

PROCEDURES

With the records and bar code labels ready, the job of affixing them to the documents began in August 2002 when the student assistants returned to campus for the fall semester. With a move-in date to the new facility of June 2004, the project had to be completed in less than two years.

The documents went through several stages during the bar coding process (see Figure 1). Starting with the paper documents, students would fill a book truck with documents in SuDocs order. Their assignment was to add a bar code label to a document only if the SuDocs number on the label exactly matched the number on the document itself. Those documents were then returned to the shelf; the remaining documents were sent to the government information services librarian. On average, only one-third of the documents had the matching SuDocs number. Of the remaining two-thirds of the documents, the librarian searched Galileo for catalog records to determine if bar codes were mistakenly produced in the microfiche run because of wrong location codes. She also searched for earlier or later editions, incorrect SuDocs numbers, or more recent "Internet only" records. The documents were then evaluated for retention. MarciveWEB Docs and OCLC's WorldCat were used to find bibliographic records for the documents that were to be kept and the records were then downloaded into Galileo. The documents were bar coded and reshelved. Discarded items were placed back on the book truck for the student assistants to type disposal lists on spreadsheets, then stored while awaiting permission from the regional depository to discard. The spreadsheets were converted to Web pages and posted to the documents homepage and notification sent to the depository community through various listservs. Each of the two student assistants kept two book trucks in rotation between bar coding and disposal listing during most of the project.

As work progressed at a steady pace, the large number of documents on disposal lists waiting for discarding became a major issue. A disposal list log was developed to keep track of the lists and to record the SuDocs ranges, number of documents withdrawn, notification of the Regional Depository, and where the documents were being stored. The log was also used to note any requests for documents from other libraries or individuals.

By December 2003 the disk collection and about half of the paper document collection had been bar coded. It was clear that procedures would have to be altered in order to finish the paper collection before June 2004. During the construction of the new building, the department received news that the microforms room in the Christopher Center would be able to accommodate government documents on microfiche. Since that segment of the collection would not be stored in the ASRS, there was no need to have the microfiche bar coded before the move.

During the semester break, large groups of older materials that were to be kept, but that had not been cataloged, were identified and pulled. These included documents from the now defunct War Department, State Department, and presidential documents before the Reagan administration. The documents were boxed, each box bar coded, and the bar codes were entered
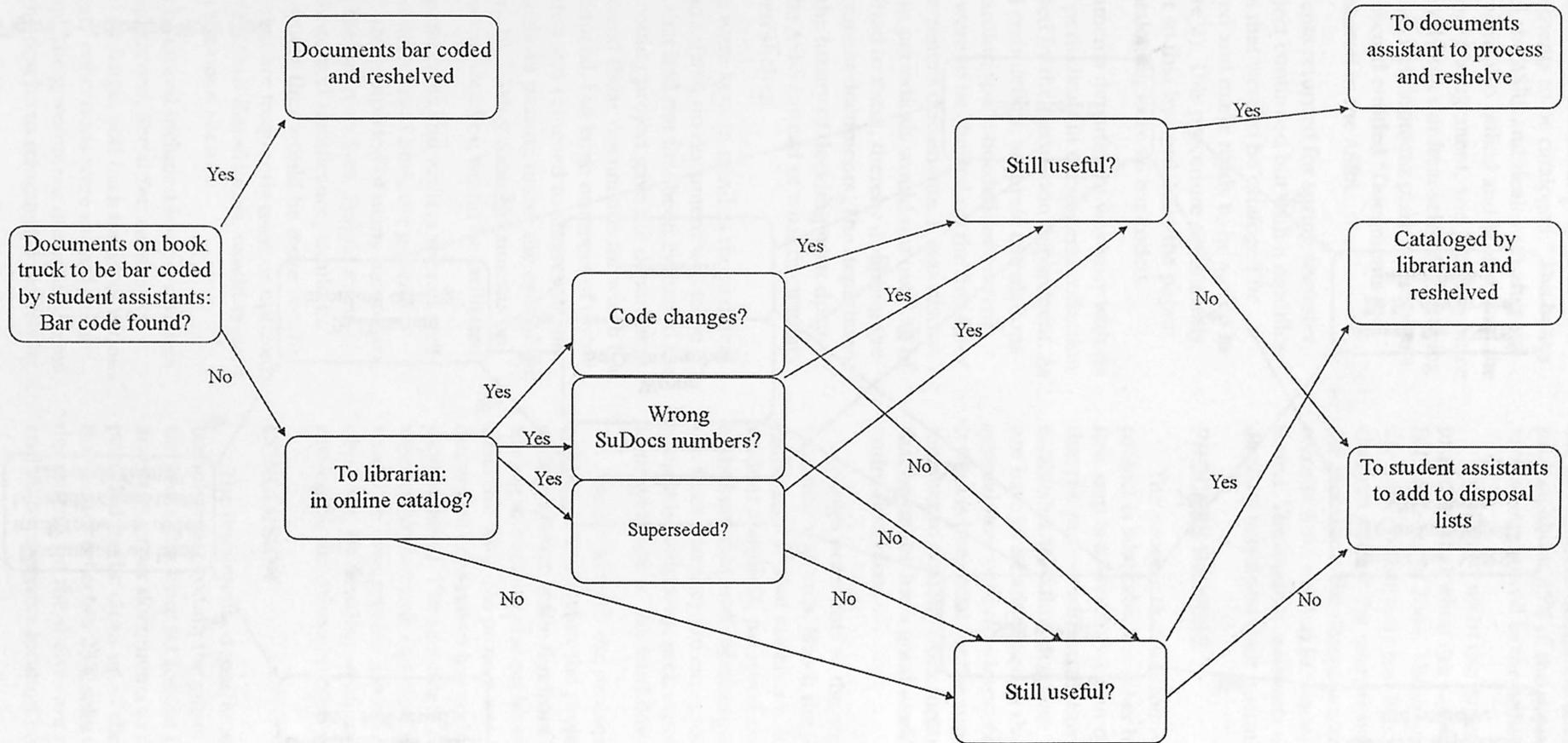
Bar Coding Work Flow

Documents bar coded
and reshelved

Documents on book
truck to be bar coded
by student assistants:
Bar code found?

Yes

No

To librarian:
in online catalog?

Yes

Yes

Yes

No

Code changes?

Wrong
SuDocs numbers?

Superseded?

Yes

Yes

Yes

No

No

No

Still useful?

Yes

No

Still useful?

Yes

No

To documents
assistant to process
and reshelve

Cataloged by
librarian and
reshelved

To student assistants
to add to disposal
lists

Figure 1 - Bar Coding Work Flow

Adjusted Work Flow

Documents bar coded
and reshelved

To documents
assistant to process
and reshelve

Yes

Still useful?

Yes

Documents on book
truck to be bar coded
by student assistants:
Bar code found?

Yes

Boxed for ASRS:
To be cataloged
after move

No

Yes

Code changes?

Yes

No

Yes

To librarian:
in online catalog?

Yes

Wrong
SuDocs numbers?

Yes

Yes

Boxed for ASRS:
To be discarded
after move

Yes

Superseded?

No

No

No
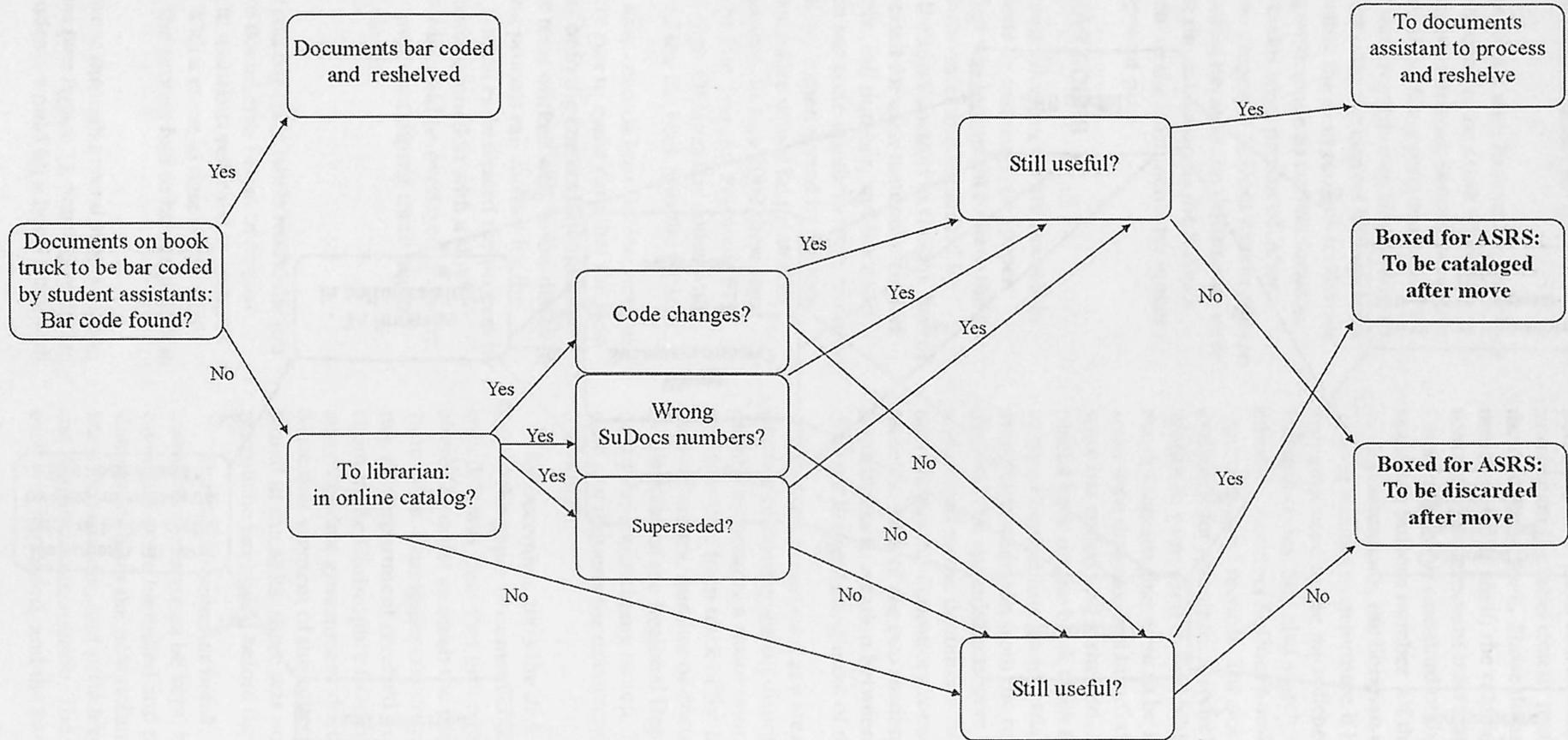
No

No

Still useful?

No

Figure 2 - Adjusted Work Flow

onto item records attached to a bibliographic record with the title "Documents to be cataloged." The boxes were to be stored in the ASRS and dealt with after the move. Documents were also pulled and boxed from the Post Office, Personnel Management, and Judiciary since they had been deleted from our item selection as being outside our collection development plan. These boxes were attached to a record entitled "Documents for disposal" and also stored in the ASRS.

When the students returned for spring semester, the bar coding project continued but with a modification: all documents that were to be cataloged or disposed were boxed and made ready to be stored in the ASRS (see Figure 2). This procedure significantly sped up the project so that by April 2004 the paper documents with cataloging were all bar coded.

While the documents department was busy with its bar coding, bound periodicals in the general collection were being bar coded by the circulation department. As that project neared completion, accurate calculations could be made regarding space needed for current periodicals, which were to be shelved on the first floor along with the government documents. It was discovered that the current periodicals would not need all of the shelf space allotted to them, thereby doubling the space for the government documents. The department was now afforded the luxury of deciding what documents to store in the ASRS instead of what documents to retain on the open shelves.

Three concerns were kept in mind as those determinations were made. First, no document was to be placed in the ASRS that had not first been evaluated for retention. The bar coding project gave the department an opportunity to weed those documents for which bar codes were not produced, but large numbers of documents were bar coded and returned to shelves by the student assistants without passing under the eyes of the documents librarian. By leaving these documents on the open shelves, future weeding would be facilitated.

Second, since pamphlets and leaflets are not well-suited for storage in automated bins, the general publications, which are comprised of many pamphlets, were to be kept on the open shelves. Fragile items, especially those of historical significance, would be placed in the ASRS where they would be more secure. Finally, documents that are frequently used or updated, such as the *Code of Federal Regulations*, would remain easily accessible on the open shelves.

Those items to be stored included bound volumes of the *Congressional Record*, Serial Set, census volumes, *U. S. Statutes At Large*, and back issues of various annuals. As the library collections were moved to the new building in June, the government document items for the ASRS were the first be to relocated, followed by

the government document stacks. At the end of the project, about 25% of the paper government documents were stored in the ASRS.

Final clean up of the paper document bar coding project started when the student assistants returned for fall semester of 2004. Thousands of bar codes, left after the paper documents had been processed, had to be checked against the microfiche collection. Changes to the records in the database were made as needed and records were deleted for documents that were not found. The student assistants also resumed typing disposal lists upon their return.

PROCESS REPRISE

The process that was followed in completing this project is adaptable for other library endeavors. The first step is to develop a plan outlining major actions that the project will entail. Envision each step and establish a workflow diagram. The minute details do not have to be addressed at this step but having a general flow pattern is important as the process begins. It then is beneficial for the supervising librarian or staff member to actually work through the procedures so that he or she has a good working knowledge of the entire operation.

Assign personnel to the workflow steps as their expertise warrants. Match the jobs to skill levels of the employees so that maximum advantage can be taken of student assistants, paraprofessionals, and professionals. Make sure that staff members are adequately trained for the work that they are expected to perform. As the project is underway, seek input from the staff for improvements to the workflow.

Finally, identify the problems or bottlenecks during a process review after the project has begun. Keep the main objective at the forefront of the project and be willing to compromise on lesser objectives. The main objective with this project was to have the entire paper documents collection bar coded before the move to the new building. The secondary processes of disposing of weeded documents and cataloging documents that would be kept created a serious drag on the main objective. By devising an alternate plan for these processes, the main objective was realized.

CONCLUSION

The documents department worked diligently to complete bar coding the paper documents and realized the goals that were set for the project. Better patron access to paper documents and those on disk has been provided by the clean-up of the catalog and the collection better reflects a 23% selective depository. All of the documents on the shelves are represented in Galileo and all have correct location codes. The extraneous

records for paper documents that were never received have been removed from Galileo, making the catalog more efficient and reflective of the collection. The disposal lists for the 150 boxes of discards have been typed, sent to the regional depository library and other libraries for consideration, and the documents have been properly disposed. The remaining challenge is to complete bar coding the government documents on microfiche. While the impetus for moving the collection has been satisfied, the benefits of inventory, catalog clean up, and weeding are too great to ignore. A plan is now in place to complete this project in two years.

FOOTNOTES

[1]For more information on the Automated Storage and Retrieval System see AmRhein, R. & Resetar, D. (2004). Maximizing library storage with high-tech robotic shelving. *Computers in Libraries, 24(10)*, 6-8, 51-56.

ABOUT THE AUTHOR

Rebecca Byrum graduated from Indiana University with an MLS in 1979. She started her library career as the Head of Reference at Marion Public Library, Marion, Indiana. She worked as a reference librarian at Indiana University - South Bend from 1989-1991 where she also helped in Technical Services when IU went online with its first automated system. Since 1997 she has worked at Valparaiso University where she is currently the Government Information Services Librarian.

Automated Storage and Retrieval System (photo by Aran Kessler)