Inventory Method for Bound Journal Volumes Without Call Numbers in the Alma System

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Abstract

This article introduces the current status of bound journal volumes at Tsinghua University Library, describing the inventory verification process for bound journals lacking call numbers conducted through on-shelf reports and management result sets in the Alma system. It emphasizes the analysis of problematic bound journal volumes and their resolution methods, and proposes constructive recommendations for the subsequent management of bound journal collections. By fully leveraging advanced information technology combined with scientific management approaches, the library optimizes and enhances traditional services, continuously improves management standards, and strives to build a more interconnected, efficient, and intelligent library.

Full Text

The Counting Method of Bound Journals Without Call Numbers in Alma System

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Abstract: This paper introduces the current situation of bound journals at Tsinghua University Library and describes the inventory process for bound journals without call numbers using Alma system's on-shelf reports and managed sets. It focuses on analyzing problematic bound journals and their solutions, and proposes constructive recommendations for future bound journal management. By leveraging advanced information technology and scientific management practices, libraries can optimize traditional services, continuously improve management levels, and strive to build a more interconnected, efficient, and intelligent library.

Keywords: Alma System; Inventory; Bound Issue

1. Introduction

Journals are serial publications with fixed titles issued regularly or at announced intervals and intended to continue indefinitely, characterized by novel content, strong timeliness, and large information volume. Bound journals are compiled volumes formed by collecting and binding individual issues in chronological order after they have circulated in the library for a certain period. They feature cumulative continuity, unique copies, and certain academic reference value. With the continuous development and improvement of electronic journals that partially replace the circulation function of print journals, libraries still invest annual funds in resource construction. Print journals and bound journals retain certain reference value, especially as binding costs increase. Libraries conduct preliminary screening to purchase core journals and discipline-important journals. Consequently, bound journals in specific disciplines possess strong academic value and accumulation, comprehensively and systematically reflecting the development of a particular discipline.

Bound journals constitute part of a library's fixed assets, requiring annual investment in procurement, binding, and management. Libraries must regularly verify their assets, including books and journals, to prevent asset loss. Inventory of book and journal assets helps understand the collection status, identify gaps, utilize resources more effectively, and provide better services to readers.

2. Related Research Progress

Literature review reveals that library inventory research primarily focuses on books, including studies on domestic library book asset verification overviews [1], research on collection book counting methods based on Alma system [2], practice studies on literature inventory using Alma [3], exploration of book inventory work in university libraries [4], using RFID with DSP collectors in ILAS III systems to resolve shelving disorder [5], and library asset inventory practice and experience [6]. Research specifically addressing bound journal inventory is scarce. Yi Ping discussed bound journal inventory [7] relying entirely on manual verification. Bie Liqian introduced the practice of changing journal arrangement from alphabetical to classified order [8]. Research on inventorying bound journals without call numbers using the new-generation library service platform Alma remains unexplored.

3. Practice of Bound Journal Inventory at Tsinghua University Library

Building on experience from the 2019 book inventory [2], the working principle, process, and method for bound journal inventory are consistent with book inventory. The key difference lies in data processing within Alma. Since bound

journals lack call numbers, the “shelf report” - “range” function cannot be used to run scanned barcodes, creating a challenge for processing inventory data.

Seizing the opportunity of remote stack relocation, Tsinghua University Library needed to inventory approximately 230,000 bound journals without call numbers to ensure accuracy between bibliographic data and physical collections and prepare for collection relocation. After repeated practice and testing, the library ultimately determined to use the “managed set” method to run inventory data, subsequently conducting inventory of bound journals in the West Library (Yifu Library).

3.1 Basic Situation of Bound Journals at Tsinghua University Library

The West Library (Yifu Library) of Tsinghua University Library houses nearly 230,000 Chinese and foreign language bound journals published since 1978. Chinese journals are shelved by stroke count of journal titles, while foreign language journals are shelved alphabetically by title. No call numbers have been assigned to any journals, and no large-scale inventory has been conducted previously.

3.2 Running Inventory Data for Bound Journals

Two methods have been summarized for running inventory data:

[Figure 1: see original paper] Two Methods for Running Collection Inventory Data

Method 1: Directly input corresponding fields in the “Shelf Report,” ensuring field content matches the barcodes being inventoried. For example, to process TP-class data in the main library location mn206, select “Library” as Main Library, “Location” as mn206, “Call Number Type” as Other Scheme, “From Call Number” as TP, and “To Call Number” as TQ, then upload the barcodes to be inventoried.

Method 2: For collections without call numbers, the managed set method must be used. First, construct a logical set (dynamic set) for the target bound journal data through Alma’s “Manage Sets” function. To ensure search results remain unchanged for future use and review, convert it to a “Columnar Set” (static set). Then, access “Shelf Report” - “Set,” select the newly created columnar set, fill in “Library” and “Location,” and import the scanned inventory barcodes. Finally, submit to run and obtain six types of job reports. For example, to process bound journal data in main library location mn320, when creating the logical set, input search criteria: “Permanent Physical Location” as mn320 and “Material Type” as bound journal. After creation, locate the set in “My Sets,” view “Members,” convert it to a “Columnar Set,” then access “Shelf Report” - “Set,” select the newly created columnar set, choose “Library” as Main Library and “Location” as mn320, and upload the inventory barcodes.

Method 2 offers two advantages over Method 1: First, it imposes no quantity limits on processed data, greatly improving efficiency. Second, it can

process collections without call numbers, resolving historical legacy issues.

3.3 Analysis of Job Reports

After running inventory data, six types of job reports are generated: items on shelf, items lost but marked as on shelf, items on shelf but marked as not on shelf, known items not on shelf, items on shelf but outside range/set, and barcodes with no matching items. After exporting these six tables from the system, further analysis and timely resolution of problematic data are required. Common problems and solutions are shown in Table 1 .

Table 1 Common Problems in Job Reports and Solutions

Problem	Solution
Bibliographic data (barcode/journal title/volume-issue/material type) inconsistent with physical bound journal	1. Verify and correct bibliographic data based on physical journal2. Identify journal 特殊性, such as title changes or supplements; consider mapping between bibliographic records3. For main/sub-title situations, modify according to cataloging rules
One bound journal with multiple barcodes	Verify against system and remove duplicate barcodes
Incorrect location marking	1. If physical journal exists without system data, create new item record2. If system data exists without physical journal, delete system data3. If property number or current issue check-in record was mistakenly used as barcode, delete and reassign number
Abnormal status (in transit/lost/acquisition/technical-migration/new)	Modify location information according to actual location of bound journal; if item not found, mark as lost
Mis-shelved bound journals belonging to other libraries	Return to correct location based on actual location of bound journal
Bound journals without records	Re-catalog according to actual situation of bound journal

After completing inventory, all data from the process must be compiled and summarized to create an inventory report, enabling timely understanding of problematic collections, summarizing experience, and establishing standardized collection management processes and models. The analysis of problems in this bound journal inventory is shown in Figure 2 [Figure 2: see original paper].

4. Management Considerations for Bound Journals After Alma System Inventory

[Figure 2: see original paper] Analysis of Bound Journal Inventory Problems

4.1 Subject-Based Sorting Superior to Alphabetical Sorting

Since 1978, Tsinghua University Library's West Library has shelved Chinese bound journals by stroke count of titles and foreign language journals alphabetically by title. Inventory revealed that alphabetical sorting increases difficulty in locating bound journals. Issues such as characters with identical stroke counts, confusing stroke sequences, and folding stroke orders lack unified management standards, increasing complexity for staff shelving and difficulty for readers searching. Particularly for title changes and main/sub-title situations, alphabetical sorting cannot shelve the same journal together, preventing concentration of similar journals and destroying continuity. Therefore, after this inventory, Tsinghua University Library decided to assign call numbers to all academic bound journals, composed of classification number + language indicator + Cutter number + distinction number, with language indicators Q, J, and K for Chinese, Western, and Japanese journals respectively.

4.2 Strengthening Receiving Management of Bound Journals

Among common inventory problems, mis-shelved journals from other libraries accounted for 57.96%, indicating that failure to timely verify bibliographic data against physical journals during receipt led to high mis-shelving rates, reducing journal utility. Additionally, though bibliographic data inconsistencies (barcode/journal title/volume-issue/material type) with physical journals accounted for only 5.53%, journal title and volume-issue information directly affects reader usage. Therefore, strengthening receiving management of bound journals and ensuring final verification of bibliographic data are critical steps to guarantee journal service quality.

4.3 Establishing Regular Inventory System

Since 1978, bound journals in Tsinghua University Library's West Library have undergone multiple departmental transfers. This inventory addressed 5,331 problematic bound journals (2.4% of total). Based on regular book inventory data from 2018 and 2021: in 2018, 487,129 books were inventoried with 8,844 problematic books (1.82%); in 2021, 492,309 books were inventoried with 4,401 problematic books (0.89%). Although 2021's inventory volume was over 10,000 more than 2018's, problematic books decreased by over 4,000, greatly improving bibliographic data accuracy. Therefore, libraries should establish regular journal inventory systems to reduce problematic journals and continuously improve service quality.

As mentioned in *The Five Laws of Library Science*, "Save the time of the reader"

means saving society's money and increasing society's wealth. Libraries should fully utilize advanced information technology, combine scientific management methods, optimize traditional services, continuously improve management levels, and strive to build a more interconnected, efficient, and intelligent library.

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Author Contributions Statement:

Mao Lijie: Proposed research topic, wrote sections 3-5 of the paper;
Fan Linlin: Wrote sections 1-2 of the paper;
Li Jin, Ma Xuemei: Provided guidance for the paper;
Liu Yao: Provided inventory data.

Note: Figure translations are in progress. See original paper for figures.