

## **Journal Weeding Project at the University of Louisville: A Case Study**

*Tyler Goldberg & Claudene Sproles, University of Louisville*



### **Abstract**

In order to build a faculty learning lab on Ekstrom Library's third floor, the authors undertook a systematic and swift weeding project of bound print journals. A process was created to quickly assess titles for transfer or withdrawal, utilizing the Libraries' recently implemented library management system and its automated storage and retrieval system. The authors describe the process used to determine for each title whether it would be retained, transferred to the Library's automated retrieval system, or discarded. By the end of the project, 49% of the bound journal space was cleared, freeing prime library space to attract and engage users.

*Keywords:* Weeding, serials, journal retention, library space, automated storage and retrieval systems (AS/RS)

## **Introduction**

The University of Louisville, located in Louisville, Kentucky, is a state supported metropolitan research university. In 2016, enrollment was 22,640 students and there were 7,074 faculty and staff. The University has six libraries: the Ekstrom Library (main), the Art Library, the Music Library, the Health Sciences Library, the Law Library and the Archives and Special Collections Library. The University of Louisville Libraries hold membership in the Association of Research Libraries (ARL). Originally completed in 1981, Ekstrom Library contains five stories, including the lower level. An expansion to the Ekstrom Library was completed in 2006 which added two stories and a lower level. It was built primarily to add an onsite automated storage and retrieval facility capable of holding 600,000 volumes, but also provided space for an expanded Circulation Department, classrooms and an auditorium. Materials that are not in the automated storage facility continue to be located on the third and fourth floors of the older wing of the Ekstrom Library. In 2015, there was an extensive renovation to the older wing of the first floor of the Ekstrom Library to create more student study space.

Starting in Fall 2014, the Head of Technical Services and the Collections Librarian began a systematic weeding of the bound journals on the third floor in the University of Louisville's Ekstrom Library to clear space to build a Technology Innovation Learning Lab (TILL) for teaching faculty. Statistics showed the bound journals received little use while occupying valuable real estate in the library. This large scale weeding project gave the authors the opportunity to rethink the retention policy for bound journals and consider the electronic environment, while incorporating the Libraries' new library management system and its automated storage and retrieval system

into the process. This project was on an expedited timeline of nine months that did not allow for a thorough review of weeded titles. As a result, a system needed to be incorporated that quickly examined all print periodicals for retention in the stacks, transfer to the Library's automated storage facility, or disposal.

### **Literature Review**

Are print journals still being used? In 1992, the University of South Carolina Medical Center began tracking use of print journals (Rosati, 2005). Over a ten-year time period, 1992-2002, they noted that usage of print journals declined 85%. They believed that this steep decrease in usage was due to the increasing availability of electronic versions of the journals, which meant patrons no longer needed to physically visit the library. Rosati noted that the online environment created a shift in the way patrons expected to receive information. As a result, the willingness of users to retrieve a paper journal began to ebb. Based on these findings the library discontinued binding print journals and focused more on electronic serials.

In 2009, Ithaka S+R, the parent organization of JSTOR and Portico, released its analysis of considerations for withdrawing print copies of digitized journals (Schonfeld & Housewright, 2009). It cites increased pressure on libraries to discard print serials and low use as rationale for discard. Reasons for retaining print include preservation, replacement of poor quality scans, and community/user needs. The report makes recommendations for how long to keep print journals, the minimum number of print copies needed, and offers a "What to Withdraw" rubric based on risk management to determine when to discard a print equivalent.

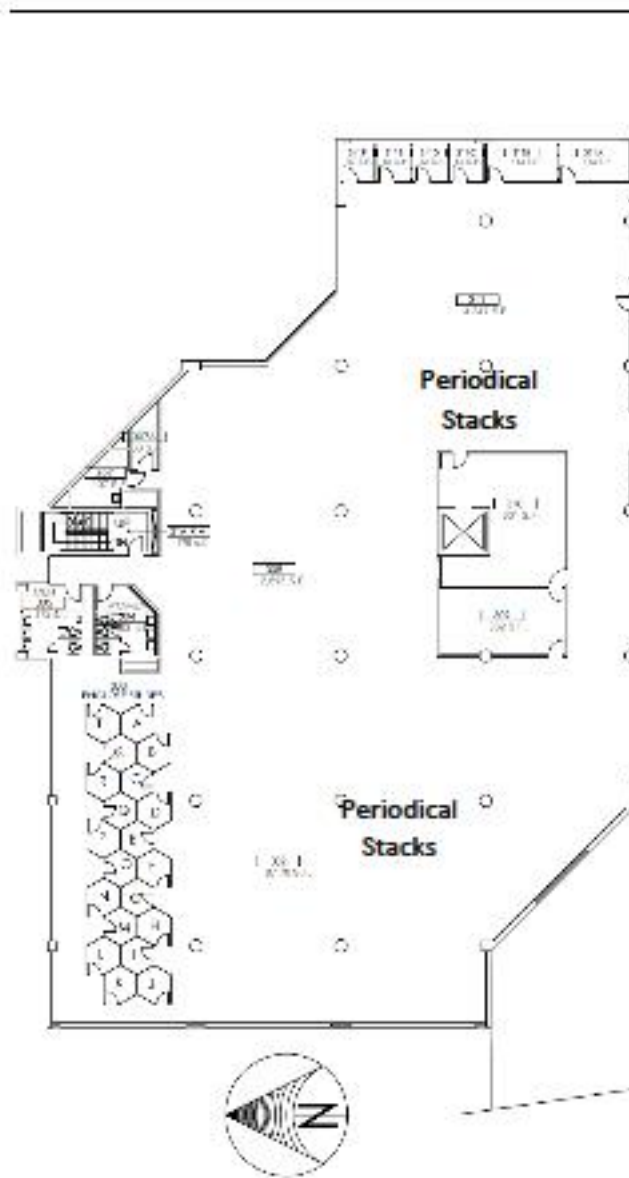
In 2013, Terrance Luther Cottrell also discussed considerations in weeding

journals from a library collection (Cottrell, 2013). Before weeding, he recommends that libraries weigh the cost, usage statistics, and the physical space print journals occupy. Additionally, libraries need to identify relevant stakeholders and assess their needs. His suggested method to create a weeding plan involves identifying titles duplicated electronically and scrutinizing the most expensive titles. Libraries should then work with stakeholders to either weed, retain, or move a journal to remote storage or compact shelving.

Also in 2013, William Joseph Thomas and Daniel L. Shouse (2013) wrote about a weeding project at East Carolina University similar to the project undertaken at the University of Louisville Libraries (Thomas & Shouse, 2013). Space within the library was identified to house Project STEPP, a program designed to assist students with learning disabilities. They decided to target print serials in an effort to free up space. They developed a set of “rules of thumb” to identify which titles should be discarded, which should be sent to compact storage, and which should be kept in the circulating stacks. They purchased several archival journal packages to facilitate this process. As noted by Thomas and Shouse, creating library space for teaching faculty is trending in academic libraries. Montana State University Library created a dynamic, collaborative space for teaching faculty called the Innovative Learning Studio (ILS), similar to the learning lab at the University of Louisville (Bonnard & Hansen, 2016). This new space allows faculty to experiment with instruction and pedagogy while using state-of-the-art educational technology. The ILS allows for flexible set-ups, including large groups, small group breakouts, and one-on-one collaboration. Additionally, it has lured more faculty to the library and allowed more faculty to librarian contact.

## Background

One half of Ekstrom Library's third floor was dedicated to bound journals [Figure 1].



*Figure 1. Periodical Stacks before Weeding Project*

Around 2007, the library stopped receiving print issues for titles available electronically. Even with the reduced influx of new issues the bound journal stacks were reaching capacity. In 2013, it was estimated the stacks were approximately 94% filled. At the same time, however, use of bound journals decreased 90% over a five-year period [Table 1].

*Table 1. Number of bound journal pickups by year*

|      |             |
|------|-------------|
| 2011 | <b>1375</b> |
| 2012 | <b>581</b>  |
| 2013 | <b>498</b>  |
| 2014 | <b>326</b>  |
| 2015 | <b>134</b>  |

This dramatic decrease mirrors the findings of Rosati (2005), who noted an approximately 85% drop in print journal usage over a 10-year time period (p. 107). While these journals were sitting idle, demand for space in the building continually increased. Plans were being developed to create a new faculty area, the TILL dedicated to the exploration and learning of new instructional technologies and pedagogies [For more information about the University of Louisville’s TILL, see <https://louisville.edu/till>]. The addition of a faculty learning area mirrored the intent of Montana State University’s Innovation Learning Studio. Like the ILS, the new space would “[add] flexible teaching space, [attract] a number of faculty back to the library, and [make] the library a stronger player and partner in the university’s teaching enterprise” (Bonnard & Hansen, 2016, p.302). The bound journal area seemed an ideal place to locate this new lab, as the area

mainly sat idle and unused.

### **The Process**

Construction of the new TILL was scheduled to begin in the Summer of 2015. The space the lab would occupy held the bound periodical journals in Library of Congress call numbers between A and N. Consequently, these bound volumes had to be moved rather quickly to accommodate the construction. A system needed to be developed to clear this area in a timely, yet thoughtful matter.

The authors took a multi-pronged approach to this project. The first step was to quickly identify a set of journals that could be easily discarded. While the Libraries' subscribe to multiple databases and serial packages, the authors decided that a journal title would not be discarded unless it was a certainty that the journal would be available in digital format for the foreseeable future. This meant titles owned by the Libraries, rather than those to which the Libraries only had access, were targeted for weeding. This approach was similar to the one taken at East Carolina University, where the serial weeding project centered around print "duplication with online archival packages" (Thomas & Shouse, 2013, p. 95).

The library owned a significant portion of JSTOR's Arts and Sciences Collections [I-XIV]. As a result, the authors decided to discard all print volumes that were available through JSTOR. They compiled a list of all the print titles in the Libraries' currently accessible JSTOR collections. The current print issues were retained for the JSTOR titles that had online embargoes of recent material, while the rest of the set was discarded. These embargoed print issues were then shelved in the Current Periodicals area until they were available in JSTOR and could finally be discarded. Additionally, the Libraries had

purchased a few electronic journal backfiles from other vendors, such as Wiley, and owned these titles online so that these could be targeted for disposal after JSTOR. Another set of serials identified for weeding were government documents. Most government documents serial titles were freely available electronically from trusted sources such as FDSys (Government Printing Office), the HathiTrust, and FRASER (Federal Reserve Archival System for Economic Research). With the exception of certain titles, such as those that were Kentucky-related, Census publications, and statistical sources, the authors checked each government document title to verify it was complete and full text from one of the aforementioned sources. Afterwards, it was pulled and disposed of according to federal depository guidelines.

After discarding the titles owned electronically, the authors began examining items to transfer to the automated storage facility. Patrons request items via the online catalog, and the robot retrieves the bins automatically. Titles that indicated that issues were currently being received were passed by and left on the shelves. If a title lacked any bound volumes in the last two years, it was assumed that it had most likely been canceled in print and, pending verification, would therefore be a candidate for transfer. There were many titles that met this criteria, as the Libraries had ceased receiving print issues for many electronic titles in 2007-2008. Using the automated storage facility was an excellent way to clear the stacks quickly, as Cottrell (2013) pointed out, “compacting and/or off-site storage is another way essentially to weed the collection” (p. 138). Each of these titles were examined in OCLC’s WorldShare Management Services (WMS), which the Libraries had implemented in June 2015. As noted in Figure 2, if a journal title had a status of “Not Receiving,” it was assumed that there was no longer a



print subscription. Since Ekstrom Library classifies all journals according to Library of Congress classification, journals that changed title, but kept the same call number are on the shelf together. If the title was currently received, and had changed titles, the volumes of all titles were left on the shelf. In addition to WMS making it easy to identify titles that were not being currently received, transferring and withdrawing titles in WMS can be done at the title level, which makes the process much quicker. Instead of having to withdraw each volume individually, it takes the same amount of time to withdraw a title with several hundred volumes as a title with ten volumes.

Figure 2.

The American journal of science. (5694945) Details WorldCat Holdings Copies (1) Holds (0) Issu  
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| Institution              | Branch   | Call Number | Number Of Holdings | Action   |
|--------------------------|--|-------------|--------------------|--|
| University of Louisville | Robotic Retrieval System (RRS) - Ekstrom Library | x Q1 .A5    | 90                 | <a href="#">View/Edit</a> <a href="#">Receive Item</a> |

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| Description   | Shelving Location | Barcode #     | Category | Action                    |
|---|-------------------|---------------|----------|---------------------------|
| v. 119 (1880)-133 (1887), v. 264: no. 5 (1966),               | General           |               | Basic    | <a href="#">View/Edit</a> |
| v. 265 (1967)-267: no. 7 (1969), v. 267: no. 9 (1969),        | General           |               | Basic    | <a href="#">View/Edit</a> |
| v. 273: no. 2-4, 6 (1973),                                    | General           |               | Basic    | <a href="#">View/Edit</a> |
| v. 275: no. 1-2, 4-9 (1975),                                  | General           |               | Basic    | <a href="#">View/Edit</a> |
| v. 276: no. 4 (1976), v. 277 (1977), v. 279 (1979)-289 (1989) | General           |               | Basic    | <a href="#">View/Edit</a> |
| v.119(Jan.-Jun. 1880)   | General           | u005011879323 | Basic    | <a href="#">View/Edit</a> |
| v.120(Jul.-Dec. 1880)   | General           | u005011887407 | Basic    | <a href="#">View/Edit</a> |
| v.121(Jan.-Jun. 1881)   | General           | u005011887415 | Basic    | <a href="#">View/Edit</a> |

Based on the assumption that volumes published before 1923 are in the public domain, the authors checked titles that ceased before 1923 for availability in a “permanent” electronic format. This entailed checking OCLC for records for the online versions of the title. If links were permanent or if the volumes were freely available in

the HathiTrust or the Internet Archive for volumes published before 1923, then these titles were considered for discard. The authors decided that if the print run included volumes both before and after 1923, then, generally, the entire run was kept. However, there were a few occasions where the early run was in such poor physical shape that there seemed no reason to retain these volumes, since the digital copies were much easier for patrons to access.

Technical Services in Ekstrom is located in the lower level of the older wing of Ekstrom Library, and has been responsible for processing for the Art Library, as well as Archives and Special Collections. At present, there are two faculty, six staff, and one student assistant in Technical Services. Technical Services staff were responsible for withdrawing all materials. Our student assistant retrieved all volumes from the stacks. Titles that were remaining were left on the shelves to be compacted by Stacks Maintenance students before construction. For those titles that were being transferred to the automated storage facility, the location was changed in WMS, and the volumes sent to personnel in the Circulation Department, who oversaw loading materials into the RRS. For those titles that were being withdrawn from the Library, catalogers withdrew the volumes from WMS. The student assistant discarded all withdrawn volumes in large cartons on pallets, which were sent regularly to University Recycling. It should be noted that withdrawing large sets is very easy in WMS, and requires many fewer steps than in any of the Libraries' previous systems.

## Results

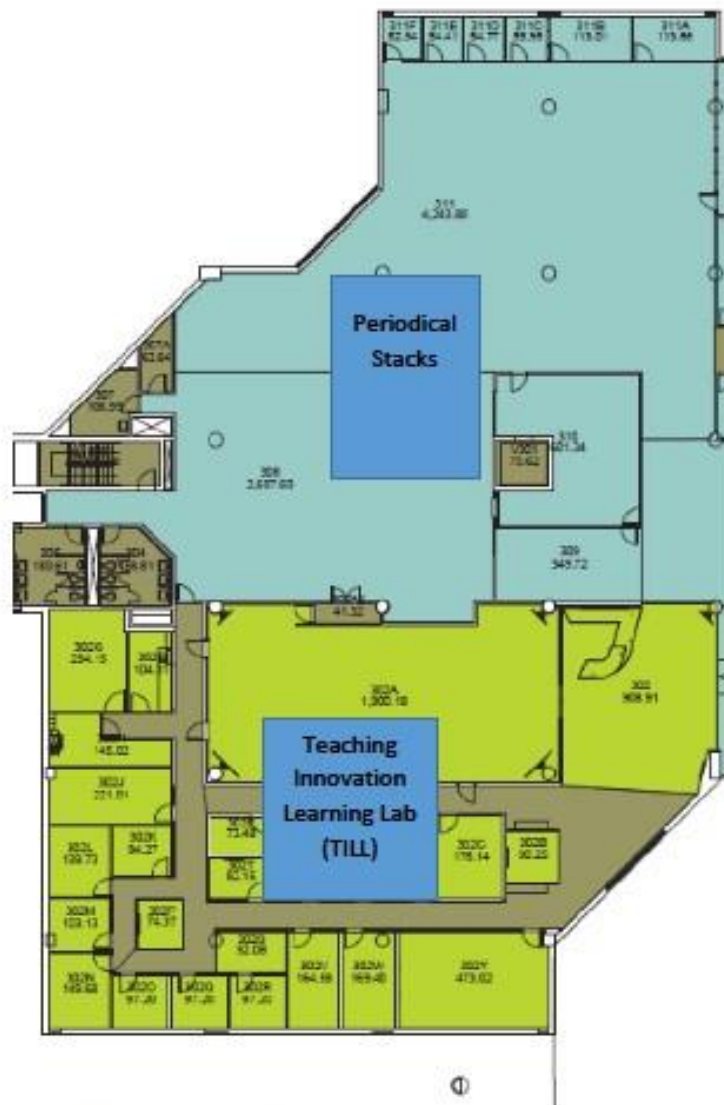


Figure 3- Periodical Stacks after Weeding Project

Miraculously, enough space was cleared following a well-organized shift by Stacks Maintenance personnel, and construction of the TILL began on schedule [Figure 3]. At the end of the project, the authors weeded a total of 1,750 titles and transferred 1087 titles to the RRS. [Table 2].

Table 2. Number of Print Serial Titles Weeded from the Collection

|                           |             |
|---------------------------|-------------|
| JSTOR                     | 1067        |
| Government Documents      | 224         |
| Other (Wiley, OVID, etc.) | 459         |
| <b>TOTAL</b>              | <b>1750</b> |

At the beginning, the third floor journals stacks contained 867 columns or 5202 shelves. At the end, the stacks were condensed to 422 columns or 2532 shelves, a difference of 2670 shelves or a 49% reduction. The area now has a total of 3075 shelves, of which 1649 (53.6%) are full or mostly full and 1413 (45.9%) shelves are empty or mostly empty. [Figure 4].

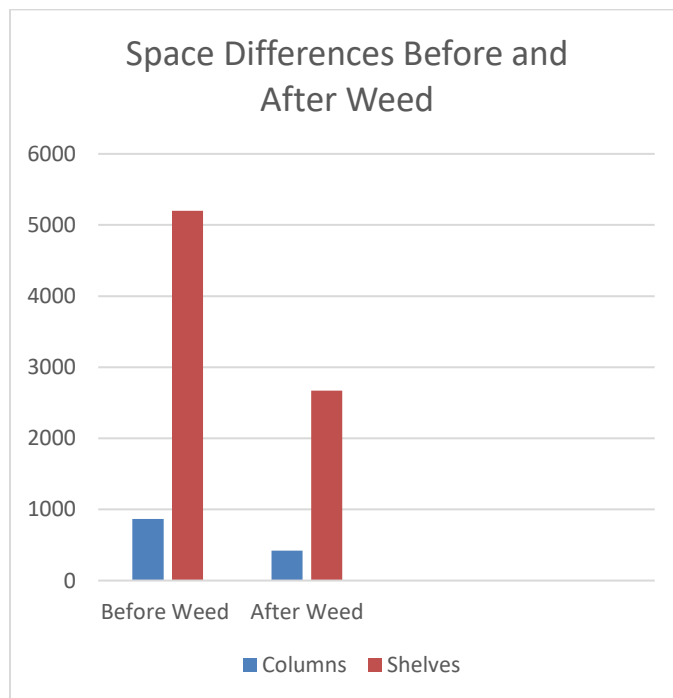


Figure 4- Number of Columns and Shelves Before and After Weed

## **Discussion**

While the timeframe for the initial effort to accommodate the construction schedule caused some angst, it was managed due to planning and perseverance. Given the strict deadline, faculty were not asked about individual titles they wished to retain in print. Having consulted faculty on a previous journal project some years ago, the authors knew that there would not be enough time to get feedback. Considering the low usage of the print journal collection, it was assumed there would be little complaint, which proved to be true. The authors worked with the subject liaisons to communicate to faculty that titles were being discarded only if the content was available electronically. Faculty input was mostly favorable or indifferent, as they overwhelmingly preferred online sources. Detailed records have been kept for all titles discarded, which has been helpful. In a couple of cases a professor was sure that he/she had been using a specific title for years, and was distressed to find it gone. In these cases, the authors were able to give the professors alternative formats to use. Cottrell's (2013) advice for weeding journals mirrors our efforts. He states libraries need to communicate effectively to stakeholders so they understand "that they are not actually losing content through the weeding process" (p.137).

For the hundreds of periodical volumes which are often large and heavy after binding, storage in the automated storage facility has been particularly advantageous. Following a change in systems to WMS, patrons are now required to come to the Circulation Desk to request materials. Requesting an item from the automated storage facility normally takes about five minutes. Those who take care of these transfers in the Circulation Department keep statistics about numbers of volumes requested. However,

with all of the transfers in and out of the automated storage facility, it is difficult to tell how many of these print periodical volumes are being requested by patrons, as opposed to those being pulled for weeding. Anecdotally, Circulation personnel report that only a few volumes are requested from the automated storage facility per month. It would be expected that usage would continue to decline over time, just as it had when the volumes were on the shelves. Another advantage of the project was to clean-up many of the serials records, so that holdings are correct, title changes recognized, and bibliographic records are accurate.

The project to examine the Library's bound periodicals, however, has continued, with efforts now moved to the periodicals on the fourth floor, employing the same method as used on the third floor. Future plans include examining other serial titles for withdrawal, such as titles that are duplicated at the health sciences or law libraries and other titles that were purchased outright, such as backfiles.

### **Conclusion**

According to Thomas and Shouse (2012), libraries are transitioning from “book warehouses to service points” (p. 92). At the same time, academic serial use is evolving from an ownership to access model, which “puts pressure on libraries to give up stacks space for user space” (p.96). Schofield & Housewright (2009) reported that as far back as 2006, 40% of collection development directors strongly agreed that “in the near future, it will no longer be necessary for our library to maintain hard-copy versions of journals” (p. 6). As a result of these trends, our retention policies should be adjusted accordingly. The University of Louisville Libraries undertook a massive serial weeding project to make room for a new faculty learning lab. This project was on a tight deadline, but was

accomplished due to the Libraries' new library management system and its automated storage facility, coupled with quick targets for deselection. In assessing the project, the authors felt that the methodology that was employed worked well. Communication with faculty was sufficient. While libraries conducting similar projects use more elaborate methods to communicate and gather faculty feedback, our tight time frame did not allow for formalized faculty input. Despite this, the library received very few complaints, presumably due to a preference for electronic content. The TILL is well-used, and faculty appear to find the lab a far better use of the real estate on the third floor than as a warehouse for little used print journals. Moving the materials physically through Technical Services was challenging, and occasionally empty book trucks were difficult to find, but these were minor issues. WMS made processing easy, and serial records are more accurate as a result of this effort.

As the authors noted, efforts have continued to weed periodicals on the fourth floor using the same methodology. Other uses for this library space have yet to be determined, so weeding can occur at a more measured pace. The University of Louisville is fortunate to have an onsite storage facility, so that the volumes that have been retained are readily available. It will be interesting to see how much usage these volumes receive in the next few years, as there are so many titles available to patrons through online databases. Will patrons go to the trouble of requesting older print journals? Will these volumes be used more for interlibrary loan than for in-house use?

Print titles that are duplicated online receive little use in the library, taking up space that could be repurposed for uses other than shelving volumes. This situation occurred at the University of Louisville Libraries, but by creating a plan and workflow

procedures the authors were able to clear the stacks while at the same time having little impact on our users' access to information.



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