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Doing More with Less: Exploring Batch Processing and Outsourcing in Academic Libraries

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Abstract

Doing more with less is a challenge facing all libraries. Staff sizes are trending down while technical services work load remains the same or is increasing; at the same time, there are new and emerging areas of focus for libraries. Grand Valley State University Libraries have made a commitment to exploring any opportunity to outsource or streamline workflows. Presenters will discuss specific examples that utilize outsourcing opportunities as well as batch processing to keep up with the work demand and benefit the library. Positives and negatives of these experiences will be explored. Factors to be discussed will include cost, staff time, quality of work, vendor, platform, and access issues. The audience can expect to learn what factors to consider in exploring outsourcing opportunities and how to identify the appropriate ways to streamline workflows through batch processing. The experience of the presenters will hopefully help others as they weigh these considerations.

Introduction

Faced with shrinking staff size in technical services caused by a reallocation of lines, Grand Valley State University (GVSU) Libraries made a commitment to explore opportunities in outsourcing and batch processing. This paper will explore specific examples that utilize outsourcing opportunities as well as batch processing to keep up with the work demand and benefit the library. Experience gained through this process has led GVSU Libraries to evaluate all such opportunities, keeping an eye on the ultimate prize—what will best benefit our patrons?

GVSU is a public liberal arts university in Western Michigan with 24,000-plus students. The library system has four libraries on two campuses with a \$4.4 million annual materials budget. The library has 67 staff members, nine of those working in technical services. The overall collection at GVSU Libraries is 1.4 million items. GVSU has over 300 databases, over 60,000 e-journals, and over 600,000 e-books. GVSU Libraries were a recipient of the 2012 ACRL Excellence in Academic Libraries Award.

Background

The concepts discussed are not new to libraries. In the article “Navigating the Currents of Vendor-Supplied Cataloging” Helen Heinrich of California State University discusses the process and benefits

of using vendor-supplied MARC records. The article is from 2008, exploring the process done in 2006 (Heinrich, 2008). More recently, Schroeder and Howland of Brigham Young University did a useful analysis of shelf-ready services in the article “Shelf Ready: A Cost-Benefit Analysis.” The authors found that using preprocessing resulted in a 5.7% decrease in the cost of processing items, material “to the shelf” 17 or more days faster than nonpreprocessed material, and a 47% decrease in processing time. These are just two examples of literature already available on this topic (Schroeder & Howland, 2011).

Shrinking or reallocated staff lines are not unique to GVSU. In the article “Staffing Trends in College and University Libraries,” Gillian Gremmels points to a study by The Oberlin Group, showing that 82.5% of eliminated or lost positions between 2008–2012 were from technical service areas (Gremmels, 2013). Over the past year, GVSU has added two faculty lines to the entire University; neither line was for the University Libraries. Coinciding with the limitations on staffing, there is a trend of rapidly changing workflows and an ever steady or increasing workload for the technical services area. Print monographic purchasing is down, but other resources also require “processing.” E-journals and e-books require similar initial processing but also ongoing

troubleshooting with access issues. Streaming media on a title-by-title basis is a new growth area for GVSU, and, in these cases, each title must have a lease or purchase negotiated, often taking hours for one title.

In addition, new areas of focus for GVSU resulted in the reallocation of two staff lines over the past 3 years. An authorities clerk retired, that staff line became scholarly communications support. When a traditional cataloger left the university, that staff line was reallocated and became a Web Services Librarian. On top of losing those staff lines, the libraries are faced with a growing staff need for digital object management. These changes in staffing and demands on time ultimately forced GVSU Libraries to make a commitment to exploring any opportunity to outsource or streamline workflows.

Vendor-Provided Marc Records

The GVSU Libraries have access to over 60,000 e-journals with full text. For around a decade, GVSU has subscribed to 360 MARC updates from Serials Solutions. Assuming that we had decided to keep this task in house, the math just does not add up.

If we were to start from scratch and copy catalog 60,000 e-journals, what kind of time commitment would that be? Speaking to GVSU cataloging and acquisitions staff, we determined that copy cataloging an e-journal record and testing the link to confirm access online would take approximately five minutes per title. Assuming a staff member was going to work on this project for 7 hours per day or 420 minutes, they would be able to catalog 84 records per day. For an initial project of 60,000 records, this would take one staff member 714 work days, almost three years, to finish.

At GVSU we have one person that deals with our e-journal MARC records. At this point, we get monthly update files of new records, records with changes in them, and records that need to be deleted. For the past 2.5 years, this staff member has been recording the numbers of the batch each month. GVSU processes 7,000–10,000 new/changes/deletes each month. The staff member who is tasked with getting those into our

ILS spends about four hours each month to accomplish the task. To accomplish the same task by hand, what would we be looking at? Based on experience, we estimated that updating records would only take 3 minutes per record. If one staff member were to be tasked with updating 7,000 records at 3 minutes per record, at 7 hours dedicated to this per day, the staff member would need 50 work days, or 10 weeks. If we were to decide we wanted the task accomplished in 4 hours, as we are able to do now, I would need 87.5 staff members to work on that project every month.

Yes, we point to this math because it is an extreme example, and we want to make a point. The hours we are talking about is just the processing of the records; this does not even take into account the larger task of gathering the information from all of our journal providers on new titles, coverage changes, and removed titles. This is just one source of vendor provided MARC records at GVSU; e-journals are not even our largest set of MARC records, though they do have more updates than any other product. GVSU Libraries have made it a high priority to secure vendor provided MARC records for not only e-journals, but streaming videos and e-book packages. In fact, recently a popular streaming video subscription GVSU wanted for the content, did not offer MARC records as part of the subscription. GVSU Libraries waited 3 years until they could provide MARC records and update them.

We should point out that using vendor-provided MARC records is not always the best option. We suggest working with each vendor to find out who has generated the records. How often and how will they be updated? GVSU Libraries did run into a situation with a small e-book reference collection in which we paid extra for vendor provided MARC records. The records that were delivered were of such a low quality that we ended up copy cataloging the titles in house.

Preprocessing Services

“Shelf-ready” books are another popular outsourcing opportunity for libraries, paying a book provider to handle some of the cataloging

and other processing of your print material. There are a few tasks that still happen in house, but the vast majority of the “processing” of physical material is outsourced whenever we can. The benefits to the GVSU staff have been apparent. The electronic invoicing that comes as part of our preprocessing agreements is a much faster way for us to deal with the acquisitions work on these materials. We have had a shrinking staff size in acquisitions, but we have maintained the same, if not faster, “turn around time.” Work per item when preprocessing agreements are in place have gone from 8 to 10 minutes per book to 2 to 3 minutes, allowing us to move through a large volume of material in the same or shorter time frame than before preprocessing agreements. One more obvious benefit to GVSU with both preprocessing and vendor provided MARC records is the fact that we have only one full-time cataloger on staff at GVSU; this is down from three or four just 10 years ago.

Again, we are not suggesting that preprocessing is always the best plan. Working on setting up a standing order with a new vendor, GVSU discovered that they did not offer a few of the services that we are receiving from other book jobbers. One example was they were not set up to apply and program our RFID tagging system. This, and a few other issues, meant that staff would have to touch every single item regardless of how much the vendor could provide. As this was a small standing order, we made the decision to do all the acquisitions and cataloging work in house, saving money.

AS/RS Batch Load

Sometimes batch processes and vendor outsourcing are not just about saving time and money, but about shifting when you spend your time. An example of this is our move into the new Mary Idema Pew Library Learning and Information Commons during summer 2013. Due to time constraints placed on the libraries by the University, we had 5 weeks to move our collection from one building to another. If all books were being moved from open stacks to open stacks, this would not have presented a problem; however, we had to load approximately 188,000 items into an Automated Storage and Retrieval System (AS/RS).

An AS/RS is a system comprised of metal bins that are retrieved by a load handling machine. Materials are loaded into these bins by height and are not arranged in any order. When staff loads items into these bins, they first have to determine the size of the item, call up an appropriately sized bin, and finally assign the book to the bin. This process is then repeated for every item you are loading into the system. We had previous experience loading an AS/RS on our downtown Grand Rapids campus in 2000. In 2000, we loaded 60,000 items in 6 weeks. Obviously we would not be able to meet our timeline if we used the same workflow.

Many ideas were tossed around on how to meet the deadline, but we finally settled on finding a way to front load the work. What if we could find a way to group books by height and assign them to bins all at once? This would eliminate a few steps and save us time. Working with our AS/RS vendor (Dematic) we developed a piece of software that would assign a single barcode to a large batch of items. Each book was scanned and entered into a database. The database would then match the individual book’s barcode to the “batch” barcode. The batch of books were then banded together and stored in boxes. At loading, the bin number was entered into another database along with the batch barcode. The vendor then took the two databases (databases of books) and loaded them into the system. This saved the staff from having to assign books. We ended up being able to load 188,000 items in 2 weeks.

While the driving factor for loading the AS/RS in this manner was shifting when our time was spent allowing us to meet a deadline, there was also a cost savings factor. We estimate that our 2000 AS/RS load cost the university approximately \$36,000 in staff time. There were some additional costs for the 2013 load, such as special banding equipment and programming time, but the overall cost still came out lower than expected. We used 840 student hours (\$7.80/hr.), 120 staff hours (\$26/hr.), 100 hours of programming (\$10/hr.), 30 hours of staff and vendor testing (\$26/hr.), and specialized equipment (\$3,000) for a total cost of \$14,452. As you can see, we saved quite a bit of

time and money in this case. If we were to have loaded 188,000 thousand items the same way we did in 2000, it would have cost us over \$100,000 and would have taken us almost 19 weeks!

Data-Driven Deselection

As mentioned above, we recently moved into a new library. This project allowed us to move our offsite storage materials into the new library. There were approximately 80,000 volumes in this facility, and they were all low use titles. Prior to moving these titles, we wanted to weed them over the summer, but there were a few concerns. First, there was not a lot of time to coordinate all of the librarians, get them downtown, and have them be able to spend enough time to make an impact. Secondly, we were not sure that, even if the librarians had time, they would discard enough titles to make it worth the time spent. So GVSU Libraries decided to work with Sustainable Collections Services (SCS) on a data-driven deselection plan. Basically, the library sent SCS our bibliographic records for all materials in offsite storage, and SCS sent us back a list of titles that were candidates for discarding. These titles met various criteria setup by individual liaisons and thus could be reviewed for possible discard. This reduced the number of titles that librarians had to look at down to 38,662 volumes.

Prior to librarian review, all items were suppressed from the OPAC, and a note was placed into the item record identifying titles as withdrawal candidates. The librarian review then took place. All candidates that were up for review had a flag placed in them, and if the librarians wanted to keep an item, they had to put a preselected retention code on the flag. These codes were later placed into a note field in the bib record. Do not worry; that process was automated.

Once the review was completed, the record maintenance could begin. The librarians chose to discard 33,353 of the withdrawal candidates. These items needed to be marked for deletion in our system and have their holdings removed from OCLC. There were 5,309 items being retained and needed to have their retention notes added and their suppression removed. If all of these steps

were done manually, it would have taken one technical services staff member approximately 242 work days. If all of our technical services staff assisted, it would still have taken 24.2 days of nonstop records work. Using built in ILS functionality, this work was accomplished in about six hours, and there was no impact on technical services.

Foreign Language Cataloging

Changes to the curriculum at GVSU have resulted in an increase of Arabic, Chinese, Japanese, and Russian books being ordered. GVSU does not order foreign language titles from a book jobber that offers preprocessing, and the new areas of growth are not in languages any library staff members are proficient in. We have recently identified two companies and have sent a half dozen shipments to each. These cataloging services offer a mix of copy and original cataloging, and we are paying \$20–25 dollars per book; this number can be shocking at first and has resulted in the addition of a new budget line for GVSU Libraries. This is much better than what we had been doing, struggling to keep up, using translators online when we could not determine a title; we even found up to half of the books purchased did not have an ISBN, making it hard to copy catalog. Often, these special orders of books would wait for weeks until a staff member had the time to try and find an appropriate record. Even when faculty in the appropriate departments offered to come in and translate, we found that their busy schedules still resulted in a very slow turnaround time until the items were in our catalog. We have found that shipping books to a third-party cataloger has resulted in much better records and a much better turnaround time.

Theory of “Good Enough”

When considering each of these examples, one must remember that each of us wants to be and do the very best at everything. That thirst for the very best for our patrons is one of the things that make us effective. But staffing lines and budgets simply make it impossible to be the best in every service we offer. What can we get done with the resources we have? What is the alternative for this project or process if we cannot be “perfect”?

What will ultimately benefit our patrons the most? In this sense, library administration must balance the need and resource to mix and blend, resulting in the best overall product for the patron. When discussing staff lines, time does, in fact, equal money. Utilizing services and processing that let us outsource or batch process work is a cheaper way to provide a product that is “good enough.” In a time when Libraries are being asked to discuss return on investment, showing that you are utilizing what staff you have and finding other methods to get work done is a compelling argument that we are all doing the best we can.

Factors to Consider

Through these examples, we have highlighted factors to consider in exploring outsourcing opportunities and ways to identify appropriate approaches for streamlining workflows through batch processing. Our first example clearly shows it would be unrealistic to copy catalog an entire e-journal collection. Can your patrons afford to have you not do the project? Is the alternative not including your e-journals in your library catalog? While working with any new vendor, find out what services they offer and discuss the pricing options of these services. Something to keep in mind while working with vendors is that they want to work with us. Just ask; you would be surprised what services they might discount or throw in for free to close a larger deal.

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In regards to staffing, consider if outsourcing or batch processing will eliminate boredom or human error. In many cases, where a few changes need to be made to specific fields, the answer is a resounding yes. But not always. Sometimes the experience of a long-time staff member really is required to get the most for your patrons.

Will it save time? We have made the point already that in some of these cases, saving time does equal saving money. Will this service limit the amount of time a staff member will need to interact with the item? That is often an easy answer. Harder is recognizing and avoiding processes that actually take longer to set up and automate than they do to just hand process. Consider how often the process will need to be done, if it is daily or weekly, you may want to consider setting up a batch routine. If this is a yearly project, would it be easier and quicker to just handle traditionally? One last point: saving time is a clear win, but will a process allow you to shift work, allowing staff to focus on other things? Will your staff be able to work on something more valuable to your patrons if you outsource or automate a project? Answering these questions can allow you to move staff time or staff members to new and emerging needs, allowing you to meet the changing needs of your patrons. Keeping your focus on the benefit to the patron often provides the clearest answer.