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Abstract

This article investigated how to use holding data, circulation and interlibrary loan (ILL) statistics to analyze the East Asian collection at the University of Minnesota. Data from multiple sources was divided along Library of Congress call number classification to help explore what was collected, utilized, and what should be grown or de-emphasized. These three sets of data are readily available in most libraries, and they can serve as a powerful tool to help subject librarians to assess the collection in their subject fields. With these data, a librarian can also make informed decisions about collection management, including remote storage selection and budget reallocation.

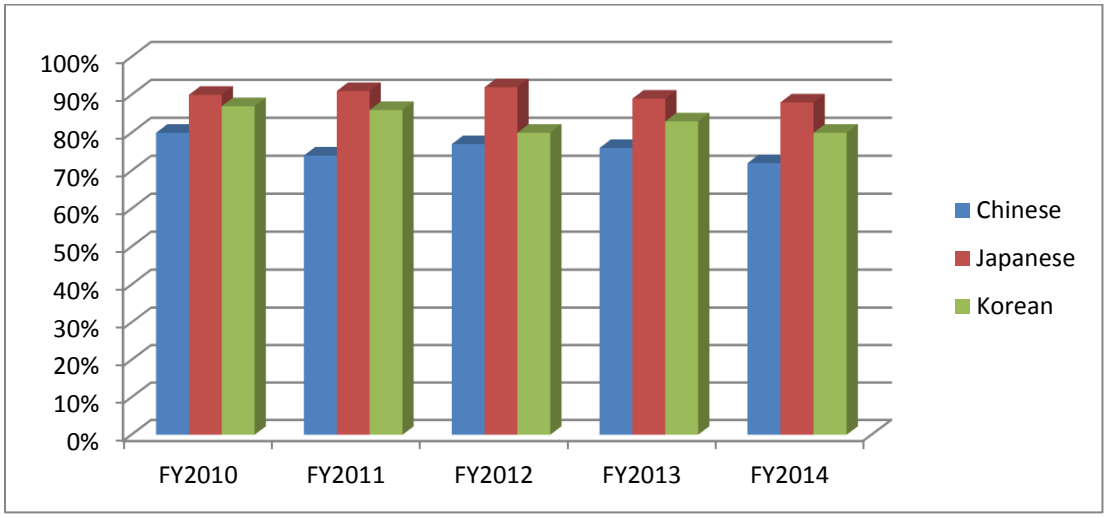
Introduction

Despite the fact that academic libraries have increased their acquisitions in electronic formats in the recent years, they continue to face the problem of the continually growing physical collections. This is especially true for East Asian collections, due to the fact that many resources are available in print format only and librarians have been primarily acquiring print collection in addition to non-ebook databases. For these reasons, the use of storage facilities for library holdings to relieve space pressure has become a common practice in the academic libraries, especially print-heavy collections, such as East Asian collections. In Fall 2015, the East Asian library at the University of Minnesota experienced severe space issues and materials had to be transferred to storage to make space for new acquisitions. While it is very common to use circulation data to make storage selection decisions, I also investigated ILL data, with the dual intent to make deselection decisions and assess the current East Asian collection for potential improvements.

Literature Review

The Council on East Asian Libraries statistics data showed that from FY2010 to FY2014, the percentage of Chinese, Japanese, and Korean (CJK) budgets spent on electronic resources slightly increased every year; however, CJK budgets were still primarily spent on non-electronic resources. On average, in FY2010, the percentage of budgets spent on non-electronic resources of Chinese, Japanese, and Korean collections were 80%, 90%, and 87% respectively. In FY 2011, the numbers were 74% for Chinese, 91% for Japanese, and 86% for Korean collections. In FY 2012, the numbers were 77% for Chinese, 92% for Japanese, and 80% for Korean collections; in FY 2013, 76% for Chinese, 89% for Japanese, and 83% for Korean collections; and in FY2014, 72% for Chinese, 88% for Japanese, and 80% for Korean collections (as shown in figure 1).

Figure 1: Average percentage of total CJK budget spent on non-electronic resources



In a study published in 2012, Yoon Jee Cho and Hyokyoung Yi surveyed Chinese, Japanese, and Korean studies librarians about their e-book acquisition. The results revealed that e-book acquisition equaled five to ten percent of the total budget for Chinese acquisition; close to zero percent for Japanese acquisition (except for e-books available in a certain Japanese database); and zero to three percent for Korean acquisition (2012, 38–40). These numbers indicated that the East Asian collection in North America is still largely in print format. Shelving space will be a lasting issue faced by East Asian libraries and collections.

Studies regarding storage selection have switched from personal experience based guidelines to data-driven institutional decision-making. Circulation data has been widely used for libraries to decide items, which need to be transferred to storage facilities. However, as the findings of a survey given to 108 Association of Research Libraries university library collection development officers indicated, some respondents considered circulation data was not the most important factor in collection development; in-house use and ILL statistics were also important (Carrigan 1996, 435–436).

The use of both circulation and ILL data in collection development and analysis is not new. As early as 1986, William Aguilar (1986) recommended using the readily available holding data, circulation records, and ILL statistics to assess libraries' collections. He suggested that the relative use of the collection was more meaningful than the absolute use of the collection and said "circulation should be considered vis-à-vis the corresponding holdings" (17). He further stated that this relative use "takes on greater significance as refined by Mills," as it was multiplied by 100 percent and became the "percentage of expected use" (Mills 1982, 6). Similarly, Aguilar introduced "ratio of borrows to holdings" (20) to compare the percentage of ILL transactions against the percentage of holdings. John Ochola (2003) employed Aguilar's methods at Baylor University libraries and used monograph circulation statistics and fulfilled ILL requests to assess if the library collection met the needs of their students. It

was unfortunate that unfulfilled ILL requests were excluded from his study, since unfulfilled requests can indicate what might be needed. Ochola suggested that Aguilar's methods could be used for collection weeding and remote storage selection. Based on the studies of Aguilar and Ochola, librarians from the University of Colorado at Boulder used holdings, circulation, and ILL data to assess their library's English-language monograph collection. The authors did not explain how the gathered data was used at their library in detail, but they did mention that this data was used in an off-site storage project (Knievel, Wicht, and Connaway 2006).

Method

The East Asian library at the University of Minnesota primarily holds materials written in CJK scripts. Non-CJK materials about East Asian regions are housed outside the East Asian library with the general collections. This study used three sets of data for the off-site storage selection and collection assessment: holdings data for the collection currently shelved in the East Asian library, circulation data for the same collection, and ILL data of East Asian faculty, staff, and students from the Department of Asian Languages and Literatures and the Department of History. CJK materials that were previously transferred to the remote storage were excluded given the fact that there was a pressingly immediate need to release shelving space by sending items to off-site storage. Affiliated East Asian faculty, staff, and students beyond these two selected departments were also excluded due to the difficulty in gathering their ILL data.

A list of holdings with circulation data of about the past decade was generated on 8/6/2015. Unfortunately, due to the limitations of our tracking software and a recent change of the integrated library system, it was not possible to determine the date of the earliest circulation data. Audio-visual materials were excluded from this study. Altogether, 944 on-order titles were also excluded due to the insufficient item information that was generated from the library system. The machine generated list included data for every single volume of a multi-volume set and every bound copy of a periodical. As the number of titles owned may more accurately reflect the coverage of the holdings, and a large amount of multi-volume sets or periodicals could skew the results, I further refined the list by counting one title only once. I combined the loans of every volume of a multi-volume set and treated it as the loans of this particular title. Similarly, for periodicals, I counted the number of loans of all bound copies of a certain periodical and used it as the loans for this particular periodical. The modified title holdings were categorized according to the Library of Congress call number classification to provide an overall picture of our holdings by subject. Subject fields with more than 500 titles were further divided into smaller units to better understand the coverage by either the geographic locations or fields of more focused subjects.

Similarly, a list of materials requested through ILL between 1/1/2010 and 12/1/2015 was generated and categorized according to the Library of Congress call number classification and further divided into smaller units as necessary. Ideally, both circulation and ILL data would be gathered for the same period of time. However, due to limitations of our ILL tracking software, the earliest data that could be retrieved was 1/1/2010. Both East Asian library title holdings and ILL materials were categorized using the Library of Congress Classification. Other libraries that would like to replicate this study can make modifications to the categorization based on the focus of their own collections and local needs.

Results and Discussion

Overall holdings and circulation

Modified title holding and circulation data were collected and presented in Table 1 and Table 2. Monographic and periodical titles were separated because these two sets of data were not comparable. For monographs, the top three subject collections with more than 5,000 titles were P (Language and Literature), D (History), and H (Social Sciences). Titles of these three subject fields accounted for 71% of the whole collection. On average, 66% of the titles had been circulated. The application of the well-known 80/20 rule in the library transactions suggests a small percentage of items results in a large percentage of circulations. While academic libraries now are pursuing a higher usage rate as more libraries are implementing the purchase on demand model, this data is encouraging. Although it is a specialized collection in a library for a relatively small number of targeted users, East Asian holdings were extensively used.

The average circulation per title demonstrated the use of the collection in a particular subject area despite of its size. The overall average circulation per monograph title was 2.4, and every title from the top three subject fields circulated 3.1 times on average. The top four subject fields that had an average loan of more than 3 times were P (Language and Literature), 5.3 times; A (General Works), 4.7 times; E and F (History of the Americans), 3.4 times; R (Medicine), 3.4 times; and T (Technology), 3.3 times. The four subject fields with the lowest average circulation were J (Political Science), 1.1 times; V (Naval Science), 1.3 times; H (Social Science), 1.5 times; K (Law), 1.6 times and M (Music), 1.6 times. High average circulation suggested either a strong collection such as P (Language and Literature), with close to 30,000 titles, or a popular small collection, such as E and F (History of the Americans), with fewer than 300 titles.

It was also interesting to examine the percentage of circulated titles in each subject field. Generally speaking, the percentage of circulated titles was directly proportional to the average circulation per title. Many numbers, as shown in Table 1, confirmed the current East Asian collection profiles were still largely valid. For example, according to the profile, social sciences acquisition should be secondary to language and literature acquisition. Within the field of social sciences, we primarily collected scholarly works about women's studies. On average, 60% of H (Social Sciences) titles circulated compared with 74% P (Language and Literature) titles. For the women's studies collection, 79% of the collection had been circulated, which was higher than the 74% of P (Language and Literature). This finding confirmed that women's studies should continue to be a major collecting area, as this collection has been actively used in the past decade. However, it was a bit surprising to see that E and F (History of the Americans) had 87% of the titles circulated, the highest among all subject fields. One possible explanation is that international students from East Asian regions who are not enrolled in East Asian programs preferred learning more about America and found it was easy and convenient to read books in their native languages. I used to have a Japanese graduate student who frequently requested Japanese language books that were originally published in English and were owned by the library. The student explained that he could read the translated books faster than the original English books. Another slightly surprising finding was that 74% of N (Fine Arts) titles had been circulated. The East Asian

art history faculty position at the University of Minnesota has been vacant for years, and currently there are no art faculty who focus on East Asian arts. As the only East Asian library in Minnesota, the library also serves researchers from other local institutions. Several East Asian arts faculty from nearby institutions are very active researchers, and the high transaction rate might result from their requests via ILL services.

Percentage of expected use, according to Mills (1982), was calculated by dividing the percentage of circulation by the percentage of holdings of a given subject and then multiplied by 100. Subjects that are over 100 percent, including A (General Works), P (Language and literature), and R (Medicine), may be considered overused locally. The rest of the subjects might be underused. However, the percentage of expected use of HN (Social History and Conditions. Social Problems. Social Reform) was 650% compared with that of the general H (Social Sciences) at 44%. This percentage of expected use together with the percentage of circulated titles could serve as helpful indicators to adjust the acquisition. If the budget continues to decrease in the future, subjects with a smaller percentage of expected use might be considered as good candidates to cut in order to guarantee the collection could meet the core user needs. What is more, subjects with a lower percentage of expected use could be better candidates to transfer to remote storage, making sure heavily used items can be easily accessed onsite.

Table 1: Monograph collection correlated to circulation statistics

LC classification	Total titles	% of total titles	Total circulation	Average circulation per title	% of total circulation	% of circulated titles	% of expected use
A (General Works)	855	1.2%	4006	4.7	1.7%	56%	141%
AC (Collections. Series. Collected Works)	636	0.9%	3458	5.4	1.5%	54%	166.7%
B (Philosophy. Psychology. Religion)	4182	6.1%	8042	1.9	3.4%	67%	55.7%
B (Philosophy general)	1465	2%	2414	1.7	1%	60%	50%
BL (Religions. Mythology. Rationalism)	942	1%	1905	2.0	0.8%	70%	80%
BQ (Buddhism)	705	1%	1692	2.4	0.7%	73%	70%
C (Auxiliary Sciences of History)	650	0.9%	1305	2.0	0.6%	70%	66.7%
D (History)	14790	21%	36313	2.5	15.3%	62%	72.9%
DS (Asia)	14244	21%	35431	2.5	14.9%	62%	71%
E & F (History of the Americas)	296	0.5%	1092	3.4	0.25%	87%	50%
G (Geography. Anthropology. Recreation)	1254	1.8%	2421	1.9	1%	70%	55.6%
H (Social Sciences)	7154	10%	10421	1.5	4.4%	60%	44%
HC (Economic History and Conditions)	1356	2%	1785	1.3	0.8%	56%	40%
HD (Industries. Land Use. Labor)	1385	2%	1429	1.0	0.6%	52%	30%
HN (Social History and Conditions. Social Problems. Social Reform)	528	0.8%	998	1.9	0.4%	64%	50%
HQ (Family, Marriage, Women)	1168	0.2%	2968	2.5	1.3%	79%	650%
J (Political Science)	1605	2.3%	1830	1.1	0.8%	53%	34.8%
JQ (Political institutions and Public Administration)	920	1.3%	961	1	0.4%	50%	30.8%
K (Law)	855	1.2%	1345	1.6	0.6%	67%	50%
KN (Asia and Eurasia)	616	0.9%	1048	1.7	0.4%	71%	44.4%
L (Education)	1642	2%	2757	1.7	1.2%	68%	60%
LA (History of Education)	671	1%	1312	2.0	0.6%	70%	60%
M (Music)	696	1%	1136	1.6	0.5%	69%	50%
N (Fine Arts)	2939	4%	6962	2.4	2.9%	74%	72.5%
P (Language and Literature)	28466	41%	15354	5.3	64.7%	74%	157.8%

PL (Language and literature of Eastern Asia)	24543	36%	144501	5.9	60.9%	73%	169.2%
PN (Literature General)	3293	5%	7241	2.2	3.1%	74%	62%
Q (Science)	455	0.7%	953	2.1	0.4%	68%	57.1%
R (Medicine)	365	0.5%	1226	3.4	0.5%	80%	100%
S (Agriculture)	256	0.4%	448	1.8	0.2%	41%	50%
T (Technology)	467	0.7%	1541	3.3	0.6%	74%	85.7%
U (Military Science)	252	0.4%	377	1.5	0.2%	60%	50%
V (Naval Science)	37	0.05%	47	1.3	0%	43%	0%
Z (Bibliography)	916	1.3%	1341	1.5	0.6%	63%	46.2%

According to our circulation policy, only bound periodicals can be checked out, while current periodicals are non-circulating. The circulation data may not reflect the real use of periodicals as the in-house usage was not collected, but it provided some helpful information for librarians to make acquisition and cancellation decisions. Different from monographs, the top four subject fields among bound periodicals that had the highest average loans were S (Agriculture), 26 times; C (Auxiliary Sciences of History), 17.9 times; K (Law), 14.4 times; and B (Philosophy. Psychology. Religion), 9.4 times. The four subject fields with the lowest checkouts were M (Music), 1.8 times; T (Technology), 3.3 times; R (Medicine), 5 times; Q (Science), 5.6 times; A (General Works), 6.1 times and G (Geography. Anthropology. Recreation), 6.1 times. In the case of the periodicals, high average circulation suggested a popular small collection. For example, the S (Agriculture) category with the highest average loans only included two periodicals. The high checkout rates do not necessarily suggest that there is a need to expand the agriculture periodical collection.

The data related to the periodical collection was not comparable with the monograph data due to two major reasons. First, the nature of these two types of resources was different. What's more, periodicals had a different loan period compared with monographs, which might influence the number of loans.

Table 2: Periodical collection correlated to circulation statistics

LC classification	Total titles	Total percentage	Total circulation	Average circulation per title
A (General Works)	124	10.1%	762	6.1
B (Philosophy. Psychology. Religion)	31	2.5%	290	9.4
C (Auxiliary Sciences of History)	9	0.7%	161	17.9
D (History)	317	25.9%	2718	8.6
E (History of the Americas)	2	0.2%	18	9
G (Geography. Anthropology. Recreation)	35	2.9%	212	6.1
H (Social Sciences)	276	22.7%	2127	7.7
J (Political Science)	13	1.1%	117	9
K (Law)	18	1.5%	260	14.4
L (Education)	22	1.8%	139	6.3
M (Music)	12	1%	22	1.8
N (Fine Arts)	42	3.4%	282	6.7
P (Language and Literature)	267	21.8%	2331	8.7
Q (Science)	8	0.65%	45	5.6
R (Medicine)	4	0.3%	20	5
S (Agriculture)	2	0.2%	52	26
T (Technology)	12	1%	40	3.3
Z (Bibliography)	38	3.1%	258	6.8

Materials requested via Interlibrary loan

A total of 2,592 non-article items (primarily monographs) and 195 journal articles were requested via ILL in the past six years. Among the 2,592 non-article items, 738 were requested by faculty, 1,698 by graduate students, 136 by undergraduate students, and 20 by staff, as shown in table 3. The numbers indicated that faculty requests have been steady in the past years; so were those for undergraduate students and staff. Requests from graduate students grew much more rapidly. In the past three years, five students joined the East Asian PhD programs. Except for the newly admitted five students, all graduate students were at some stage in the dissertation process. The admission of new graduate students and dissertation writing are two main reasons that may explain why ILL requests have peaked suddenly since 2013. Another possible explanation is acquisition budget cuts and an acquisition shift to electronic databases. In the past two years, four major databases were acquired. This shift was due to the fact that East Asian journal articles might be more difficult to acquire via ILL services due to the strict license agreements of East Asian vendors; consequently, subscribing to databases became more important than monographs, which could be borrowed easily in North America.

On average, 37% out of the 2,592 requested items were written in English, and the rest of the items were in Chinese (38%), Japanese (16%), and Korean (7%) languages, with a few in European languages (2%) other than English. This may suggest that the East Asian language collection does not meet the needs of our users as well as our English collection does. East Asian faculty and students pay as much attention to the East Asian language collection as the English language collection, if not more. The East Asian language collection is a vital part of their research, teaching and learning.

Table 3: Non-article interlibrary requests

Year	Total requests	Total requests by user type				Total requests by language				
		Faculty	Graduate	Under-graduate	Staff	English	Chinese	Japanese	Korean	Others
2010	209	146 (70%)	54 (26%)	6 (3%)	3 (1%)	68 (33%)	33 (16%)	57 (27%)	43 (21%)	8 (4%)
2011	322	135 (42%)	148 (46%)	24 (7%)	15 (5%)	156 (48%)	75 (23%)	58 (18%)	22 (7%)	11 (3%)
2012	319	112 (35%)	193 (61%)	12 (4%)	1 (0%)	99 (31%)	111 (35%)	67 (21%)	38 (12%)	4 (1%)
2013	515	126 (24%)	359 (70%)	30 (6%)	0 (0%)	156 (30%)	276 (54%)	58 (11%)	12 (2%)	13 (3%)
2014	514	100 (19%)	362 (70%)	52 (10%)	0 (0%)	249 (48%)	215 (42%)	33 (6%)	3 (1%)	14 (3%)
2015	713	119 (17%)	582 (82%)	11 (2%)	1 (0%)	214 (30%)	406 (57%)	71 (10%)	16 (2%)	6 (1%)

The publication year of the requested non-article items is also worth some attention. Unlike some other disciplines that heavily rely on new scholarship, East Asian scholars value older scholarship just as much as newer. The ILL data revealed that 16% of the requests were published within the five years from 2011 to 2015; 40%, between 2001 and 2010; 34%, between 1960 and 2000; 10%, between 1900 and 1959; and 1%, before 1899. This suggests that only collecting newly published scholarly works may not be sufficient. Some collection time devoted to discovering collection gaps of older publications might be necessary due to

the unique needs of the patrons. It would be interesting to compare data from other institutions to see if this is a pattern for East Asian scholars across the country and compare subfields of East Asian studies to discover some trends.

Ninety-seven out of the 195 article requests were made by faculty, 70 by graduate students, and 28 by undergraduate students. The low demand of journal articles compared with monographs may indicate that our current print periodicals and journal article database subscriptions generally meet the current needs of our users. The huge difference between the requested number of monographs and that of journal articles also confirmed previous studies that reported monographs remained the most valuable means of scholarly communication in the field of arts and humanities (Currie and Monroe-Gulick 2013; Thompson 2002; Williams, et al 2009). Among 195 requested articles, 101 (52%) were written in East Asian scripts, two (1%) in western languages other than English, the rest of the 92 (47%) were in English. Very similar to the monograph requests, the East Asian language collection serves as an indispensable source for research, learning and teaching.

Among the 2,592 non-article requests, 372 (14%) were cancelled. The top reasons for cancellations were: locally owned (109), not available through ILL (100), duplicated items (45) requested on the same day, cancellations by patrons (44). Unpublished theses and dissertations turned out to be difficult to borrow, and requests were often cancelled. Many older items requested were non-circulating. In some cases, patrons failed to provide accurate citation information of older items. Among 195 article requests, 160 were fulfilled and 35 were cancelled. Nineteen (54%) articles were cancelled because the library already owned the requested content. Similar to the monograph requests, other reasons were: not available through ILL, patrons' cancellation, duplication, and not yet published. One possible reason for requesting already available content is that the patron accessed databases off campus without authenticating as affiliated users, and that led to the failure to access. Library authentication is a quite complex process, depending on various factors, such as IP range, license terms, software, devices (e.g. mobile devices), and so on. I often receive complaints about failure to access databases off campus. It usually turns out that the users did not use proper authentication methods. It will be helpful to periodically send reminders to users about how to access electronic resources off campus properly. Another possible reason is that our library copy was on loan and the patron chose to ILL rather than recall the item (our library catalog gives the option to recall or ILL an item). A third possible explanation is that our book was on order, and patrons wanted to access the book immediately and requested it through ILL. Due to our longer shipping period compared with some other libraries, users may tend to ILL East Asian script materials. For article requests, patrons may still request locally owned print contents to be delivered electronically for their own convenience due to the fact that our library provides the on-demand digitalization service.

Fulfilled ILL requests were borrowed from 194 libraries around the world. Data showed 59% of the non-article requests and 50% of the article requests were fulfilled by university libraries affiliated with the Big Ten Academic Alliance (BTAA), a regional consortium formerly known as the Center for Institutional Cooperation (CIC). Our ILL local practice is to fulfill ILL requests among BTAA institutions before reaching out to other non-BTAA

libraries. The fulfill rate suggested that about 41% of requested items might be out of the collecting scope of BTAA East Asian libraries and collections. It would be useful to see other BTAA libraries' ILL data for East Asian materials to find better ways to collaboratively acquire materials to meet the diverse groups of East Asian scholars and students among BTAA institutions.

Similar to the general monograph holdings, the requested non-article items were divided based on their call numbers. Duplicated titles were only accounted once for categorizing purposes. As shown in Table 4, the top requested categories D (History), H (Social Sciences), and P (Language and Literature) accounted for 71.5 % of the total number of requests. The comparison of ILL materials and current holdings confirms that the collecting scope of the East Asian collection is still valid; however, some adjustment is needed to make the collection suit the current research and teaching needs. For example, the heavy loans of history materials might suggest that the time period in which the library is currently collecting may be inaccurate. One example is that our library used to have a strong Ming collection for Chinese history. But a modification was made recently to collect materials about the late Qing and the Republic of China period based on user feedback.

Table 4: Comparison of ILL non-article loans and holdings

LC classification	ILL total titles	ILL % of total titles	Holding total titles	Holding % of total titles	Ratio of borrowings to holdings
A (General Works)	63	2.9%	855	1.2%	2.42
AC (Collections. Series. Collected Works)	51	2.3%	636	0.9%	2.56
B (Philosophy. Psychology. Religion)	141	6.4%	4182	6.1%	1.05
B (Philosophy general)	47	2.1%	1465	2%	1.05
BL (Religions. Mythology. Rationalism)	19	0.9%	942	1%	0.9
BQ (Buddhism)	15	0.7%	705	1%	0.7
C (Auxiliary Sciences of History)	19	0.9%	650	0.9%	1
D (History)	476	21.5%	14790	21%	1.02
DS (Asia)	420	19%	14244	21%	0.9
E & F (History of the Americas)	30	1.4%	296	0.5%	2.8
G (Geography. Anthropology. Recreation)	88	4%	1254	1.8%	2.22
H (Social Sciences)	282	12.8%	7154	10%	1.28
HC (Economic History and Conditions)	54	2.4%	1356	2%	1.2
HD (Industries. Land Use. Labor)	57	2.6%	1385	2%	1.3
HN (Social History and Conditions. Social Problems. Social Reform)	36	1.6%	528	0.8%	2
HQ (Family, Marriage, Women)	44	2%	1168	0.2%	10
J (Political Science)	48	2.2%	1605	2.3%	0.96
JQ (Political institutions and Public Administration)	7	0.3%	920	1.3%	0.23
K (Law)	12	0.5%	855	1.2%	0.42
KN (Asia and Eurasia)	6	0.3%	616	0.9%	0.33
L (Education)	32	1.4%	1642	2%	0.7
LA (History of Education)	6	0.3%	671	1%	0.3
M (Music)	16	0.7%	696	1%	0.7
N (Fine Arts)	114	5.2%	2939	4%	1.3
P (Language and Literature)	601	27.2%	28466	41%	0.66
PL (Language and literature of Eastern Asia)	240	10.9%	24543	36%	0.3
PN (Literature General)	226	10.2%	3293	5%	2.04
Q (Science)	16	0.7%	455	0.7%	1

R (Medicine)	20	0.9%	365	0.5%	1.8
S (Agriculture)	24	1.1%	256	0.4%	2.75
T (Technology)	21	1%	467	0.7%	1.43
U (Military Science)	17	0.8%	252	0.4%	2
V (Naval Science)	3	0.1%	37	0.05%	2
Z (Bibliography)	16	0.7%	916	1.3%	0.54

The ratio of borrowings to holdings, according to Aguilar (1986), equals percentage of borrowings divided by percentage of holdings. Similar to the percentage of expected use, which is more accurate in describing the use of a collection, this ratio is more accurate in comparing the loans relative to existing holdings. Subjects with ratios closer to zero suggested that our existing holdings could well meet user needs, and those are subjects that might be de-emphasized or even given up when the budget becomes critically insufficient. The converse is, the higher the numbers are, more effort might be needed to strengthen that subject. The actual number of loans should also be taken into consideration. For example, subject V (Naval Science) had a ratio of 2, which is greater than many other subjects, however, due to the very small number of ILL requests, this subject will still be a good candidate to abandon when budget becomes an issue.

Non-data factors

In addition to the data, there are other aspects that librarians will need to consider before making deselection decisions. Support from faculty and graduate students is key to decision-making. We may not want to relocate the in-house frequently used items to storage. Communication and explanation of the process are important. Always remember to update users about major developments.

Periodicals are natural targets for removal to off-campus storage due to the large amount of space the move will make available relatively easily; however, metadata librarians need to be consulted in the decision making process. Most of our journals are active subscriptions, and moving them to storage means that catalog records will be split, and it may not be easy to modify each individual record manually. Multi-volume sets are also attractive but troublesome candidates for the same reason of the periodicals. Duplicated items and dated materials and formats are also good candidates. For example, library catalog books, older editions of dictionaries, and VHS tapes were selected either to withdraw or relocate to remote storage for this project.

Lesson learned

Periodicals are at first sight cost effective but problematic candidates for storage, especially active periodical subscriptions. Much manual work by cataloging staff is involved in order to clean up the records, and location information can be troublesome to display in the library system and confusing to users. If not coordinated well, it will cause a lot of trouble for the transfer project.

Always remember to communicate with all parties involved. Getting faculty and graduate students' support is crucial. Keep them in the loop so their research, teaching and learning will not be disturbed by the transfer. Reinforce to users how to request items and how long

it takes. Assure faculty and graduate students that a transfer from storage back to the East Asian library is possible if items are later found to be needed onsite for easy and frequent access. Always ask for feedback for any withdrawal decisions. Communicate and coordinate with necessary library units to work out a best plan for the project.

Limitations

Circulation statistics cannot accurately reflect the actual use of the collection. In-house usage statistics were not collected at our library due to lack of staff capacity. The library started a digitization service to scan and send requested pages electronically. This usage was not collected either. The monograph collection for this study included both circulating and non-circulating items. Actual usage of the collection might be higher than the calculated circulation rate. Due to the reason explained in the methodology section, ILL data was for a limited period of time, which was not ideal for comparison with the holding and circulation data.

In addition to the time period, ILL data had several other limitations. First, faculty and students who might utilize East Asian materials but were not affiliated with the Department of Asian Languages and Literatures and the Department of History were excluded due to the difficulty in data gathering. Second, the ILL data showed 31 undergraduate students enrolled in the Department of Asian Languages and Literatures had requested items via ILL service. This number is far smaller than the number of undergraduate students who either majored or minored in East Asian studies. This may be because the East Asian studies undergraduate students were satisfied with the library's collection and tended to use materials available in the library. Another possible explanation is that many East Asian studies undergraduate students did not declare their affiliation with East Asian department and programs when they initially set up their ILL account, which made their ILL data not retrievable under the department and programs. Data from undergraduate students will give a fuller picture of how different levels of users interact with the East Asian collection. That data will help guide acquisition to consider the needs of undergraduate students.

Conclusion

Data from multiple sources created a relatively objective and useful picture of our East Asian collection and helped make decisions for a storage transfer project. Circulation data revealed the East Asian collection in general has been extensively used. On average, each title was checked out 2.4 times. Most and least popular checked out subjects were identified. Percentage of circulated titles and percentage of expected use in each subject were calculated to examine how well the collection has been used. ILL data further helped complement the findings generated from holding and circulation data by confirming the subjects that needed strengthening and subjects that might be over-collected. It also revealed the need of filling the collection gap of older publications. Both circulation and ILL data proved the importance of East Asian script collections in research, learning and teaching. Furthermore, this study shed some light on collection collaboration among local consortiums. In addition to library system automated data, other factors were considered to make storage transfer decisions, such as consulting the metadata librarian. Holding, circulation, and ILL data combined can provide a practical guideline for librarians to make informed assessment

choices about their collection. Similar studies could be carried out in the next five years to help examine if the collection development improves over the time and if actions need to be taken to make necessary amendments. Data related to East Asia-related materials written in Western languages could also be included in the analysis to give a more comprehensive review of the East Asian collection as a whole regardless of the language. Furthermore, data could be separated by languages to allow a more focused analysis and comparison of trends of local research across geographic regions. Studies across institutions may help decide the focus on each library's specialty and pave the way for the possible collaborative acquisitions in the future.

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