

# Identifying Users of Demand-Driven E-book Programs: Applications for Collection Development

*Emily K. Chan and Susan L. Kendall*

## **Background Information**

In 2003 San José State University (SJSU) and the City of San José formed a unique partnership to offer merged library services to San José citizens and SJSU students, faculty and staff at the Dr. Martin Luther King, Jr. Library. While this is a dynamic, collaborative partnership, the SJSU Library is fully committed to supporting the mission and strategic plan of the University. The principles of the University's strategic plan incorporate the concepts of unbounded learning and agility through technology.<sup>1</sup> The University Library strives to integrate the principles of the strategic plan with innovative programs.

Every five years, the University Library evaluates its services and resources to ensure that they are aligned with the University's vision and strategic plan. In preparation for the University's 2009 five-year self-study,<sup>2</sup> the Library established the 2007 SJSU Library Strategic Directions document. One of the tenets of this strategic directions document stated that the Library would begin a plan to "aggressively increase access, creation and use of digital collections"<sup>3</sup> The guiding principles of this important document inspired librarians to consider selecting electronic books in place of the traditional print format.

The unique academic/public library partnership of the Dr. Martin Luther King, Jr. Library makes most physical materials and subscription databases avail-

able to all in-house library patrons. Included among those materials are various ebook platforms. However, due to licensing agreements, there are some electronic resources that are available only to SJSU students, faculty and staff. One of these resources, the Electronic Book Library (EBL) platform, requires patron authentication both on and off campus. This guarantees that EBL ebook statistics reflect the usage patterns of SJSU students, faculty and staff.

The Collection Development Librarian, after attending the 2009 Charleston Conference, reported to colleagues and the administration that there were several sessions on an innovative program called patron-driven acquisitions (PDA) of ebooks.<sup>4</sup> PDA programs allow users, without librarian intervention, to select titles in ebook and/or print format that are added to the library's collection. Providing 'just in time' access to materials not owned by the library is facilitated by the PDA programs, which provides access to items not yet purchased. Another compelling reason for investigating a PDA program was the circulation report of Association of Research Libraries (ARL). This report documented drastic declines in circulation for print collections.<sup>5</sup> This raises the question of continuing the status quo in collection development.

A PDA program at SJSU could offer another alternative in collection development. At SJSU, circulation of SJSU library books to SJSU patrons has been de-

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*Emily K. Chan is Academic Liaison Librarian at San José State University, e-mail: emily.chan@sjsu.edu; Susan L. Kendall is Collection Development Coordinator at San José State University, e-mail: susan.kendall@sjsu.edu*

**TABLE 1**  
**Circulation Statistics at SJSU Library**

	Total Number of Books	Checkouts	Checkout Percent	Renewals	Total Circulation of SJSU Materials to SJSU Patrons	Total Percent
2004-05	997,025	177,624	18%	59,886	237,510	24%
2005-06	1,008,055	191,091	19%	61,245	252,336	25%
2006-07	1,026,917	199,313	19%	64,973	264,286	26%
2007-08	1,042,503	174,828	17%	62,979	237,807	23%
2008-09	959,979	174,828	18%	60,950	234,236	24%
2009-10	930,348	137,714	15%	56,337	194,051	21%
2010-11	937,801	109,870	12%	49,404	159,274	17%

clining, similar to what had been reported in the ARL report. Table 1 includes the number of checkouts, as well as renewals for SJSU Library. Total circulation is defined as the sum of checkouts and renewals. Since the California State University Chancellor's Office requires both checkouts and renewals, SJSU Library collects and submits these numbers for reporting purposes. It is important to note that ARL does not include renewals in checkout totals.

The decline of print circulation strengthened the argument for offering a PDA program for ebooks, which assures a minimum of one circulation per selected item. After a pilot program for PDA, the librarians could analyze usage reports and determine the prospects for continuing a more robust PDA program.

The concept of Patron Driven Acquisitions of ebooks and print books continues to be a burgeoning topic in the professional literature and at other library conferences, as evidenced by the numbers of scholarly and practitioner articles on the subject. The following is a brief review of several articles that have assisted the development of a PDA program at San Jose State University Library.

### Literature Review

In the article "Patron-Driven Acquisitions," Nixon, Freeman, and Ward offer a good introduction to other patron-driven acquisition programs.<sup>6</sup> While there are positive reasons for initiating a PDA program, Walters advises librarians to understand some of the inherent risks.<sup>7</sup> He reminds librarians of the educational mission of the academic library, particularly the necessity to balance the collection to meet the long-term goals of the university. In evaluating the utility of a PDA program, Schroeder offers a cost per use calculation,

which helps to quantify the value of a PDA program.<sup>8</sup> Dahl discusses larger implications to collection development and the role of librarians/selectors in implementing a successful PDA program.<sup>9</sup> In a pilot study at Sam Houston State University, Shen et al. compared actual patron selections against hypothetical librarian selections. On the basis of content, PDA users' selections were closely aligned with librarian selections, indicating users' abilities to identify academic titles.<sup>10</sup> While this was a limited study, many of the article's principles influenced our perspective on research methodologies.

### The Pilot Project Background (March 1, 2011–May 25, 2011)

The University Library has had a long-standing successful relationship with EBL through the library's primary book vendor, YBP. In Fall 2010, EBL and YBP had begun exploring innovative ways to offer a patron-driven acquisitions program of ebooks to their customers. In November 2010, SJSU librarians, EBL, and YBP representatives discussed the possibilities of implementing an ebook PDA plan. The University Library wanted to have YBP as the intermediary for a PDA program in order to have PDA-selected titles reflected in YBP's GOBI3, the Library's acquisitions system. Librarians could easily identify purchased titles, raising their awareness of the titles and subjects that were in demand by users.

One of the challenges of starting a PDA program at the University Library was to ensure that the allocated monies from the University library's budget were only spent by SJSU students, faculty and staff. Because EBL has an authentication program, this challenge was mitigated. Though the literature uses

the acronym PDA, EBL refers to this program as DDA (demand-driven acquisitions). From this point forward, the authors will refer to this as DDA, since it is the official phrase used by EBL. Working with YBP and EBL, SJSU Library established a DDA pilot, beginning March 1, 2011 and concluding May 25, 2011. As parameters for the DDA program, available ebooks were limited to those that had a publishing date within the last two years and were aligned with SJSU's YBP general education approval plan. This approval plan profile was developed with librarian input on content level, YBP select designations, LC classifications, and cost limit parameters. The goal of this plan was to serve the undergraduate programs, particularly general education (GE) studies.

A DDA purchase would be triggered if an authenticated user clicked on a "Continue to Read" icon after a free five-minute browse, initiated a download of the ebook to one's computer or reading device, or

attempted to print from the ebook. Titles over \$200 would have to be approved by the Collection Development Coordinator. Short term loans were not considered because of the Library's strategic plan to create robust digital collections. Once these parameters were established, EBL uploaded over 9,000 MARC records into the library's integrated library system (Innovative Interfaces). Because the catalog is viewable by all users, EBL DDA books were identified by the phrase "An eBook available to SJSU Students & Faculty" to clarify its use parameters. A budget of \$50,000 was allocated for the pilot. San Jose State students, faculty and staff had selected 500 ebooks by the end of the pilot in May 2011. During these 13 weeks, these selections, which, in fact were immediate purchases, totaled \$54,441. The selected ebooks represented a diverse range of Library of Congress (LC) classification numbers. In Table 2, the distribution of titles by LC classification numbers are shown with the number of read online sessions and downloads.

Before the pilot began, librarians were concerned about quickly depleting the \$50,000 allocation. The ability to monitor purchases on a real-time basis was paramount in order to avoid over-expenditures. Another concern was whether or not all of the LC classification areas would be represented. A primary goal of the DDA pilot program was to reach and serve the undergraduate population. Robust coverage across the LC classification areas demonstrated that the DDA titles would serve a wide range of GE courses. The results of the pilot (see Table 2) allayed these concerns to the point that the program was restarted in the fall semester. The librarians believed that there would be little activity in the summer to warrant its continuation during that term.

During the summer, the librarians evaluated the program and its current parameters and made minor modifications, including increasing the allowable title cost to \$250. The titles in the collection were refreshed to align with the most recent two years publication parameter. Another change to the system was the addition of an EBL-created

**TABLE 2**  
**SJSU's March–May 2011 DDA Pilot Program**

	<b>Titles</b>	<b>Read Online Sessions</b>	<b>Number of Downloads</b>
B–Philosophy, Psychology, and Religion	39	45	20
C–Auxiliary Sciences of History	2	1	1
D–World History	10	6	4
E–History of the Americas	5	19	11
F–History of the Americas	2	3	1
G–Geography, Anthropology, Recreation	28	46	15
H–Social Sciences	128	309	101
J–Political Science	11	27	11
K–Law	12	27	9
L–Education	21	52	29
M–Music	15	29	4
N–Fine Arts	7	10	3
P–Language and Literature	33	52	27
Q–Science	69	75	65
R–Medicine	46	90	28
S–Agriculture	1	1	0
T–Technology	60	118	70
U–Military Science	2	3	0
Z–Bibliography, Library Science	9	203	54
<b>Grand Total</b>	<b>500</b>	<b>1,116</b>	<b>453</b>

demographic widget. This widget has the ability to collect users' self-identified, demographic information, which includes the user's status and discipline area. In September 2011, the SJSU DDA plan incorporated this EBL widget.

The EBL platform provides a variety of information: invoice reports, COUNTER<sup>11</sup> usage statistics, and title-specific data, including Library of Congress (LC) classifications and minutes read and downloads. These reports are available 24/7 and provide real-time activity. To promote librarian involvement, the University Library established separate accounts for librarians. This has allowed a greater transparency for those who are interested in monitoring the system without the intervention of another library department. The conclusion of the pilot program was a resounding success and justified the restart of the DDA on September 1, 2011.

**Results from the Comprehensive DDA Program—  
March 1, 2011–December 31, 2012**

This study analyzed usage data collected from SJSU's demand-driven acquisitions (DDA) ebooks program for the March 1, 2011–December 31, 2012 period. The three goals of this study were to 1) identify users by status (i.e., undergraduate student, graduate student, faculty, or staff) and subject areas; 2) determine the coverage of the purchased DDA books by Library of Congress classification; and 3) compare the use of print and purchased DDA items that were added to the collection for the same time period.

**Methodology**

To compare the print books added to the collection and those purchased through the DDA, reports from the University's integrated library system and EBL's administrative module were examined for circulation statistics, LC classification, and patron type. Table 3 indicates the type of information that was respectively available for the print and electronic collections. The print collection statistics included print materials added during the same time frame as the DDA ebook selections. Print items added to the collection during that time period originated from librarian selections, faculty requests, selections made through the library's approval plan, and donations.

Patron type information was made available through the application of the EBL authentication widget, effective for selections made after September

**TABLE 3  
Circulation Report Parameters**

	Print	Electronic
Circulation/ Usage Statistics	Calculated as the sum of check-outs and renewals	COUNTER usage statistics
LC Classification	Yes	Yes
Patron Type	Only SJSU affiliation	SJSU status and discipline

16, 2011. The majority of EBL-purchased ebooks had a corresponding LC classification number. In cases where the LC call number was missing, resources, like OCLC's WorldCat, were used to identify general LC classification numbers.

Usage reports were generated from EBL-provided data. Reports included COUNTER usage numbers. The selected titles were cross-referenced against LC classification schedules to create a master spreadsheet of titles purchased through the DDA program with their corresponding LC class, price, and COUNTER usage statistics. The results were processed and analyzed with Microsoft Excel.

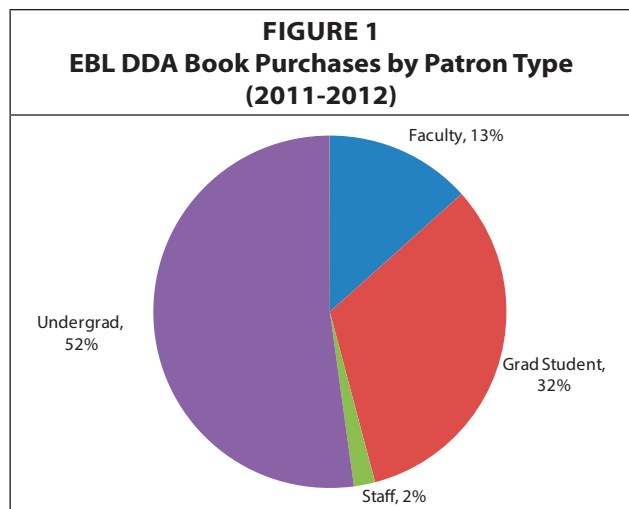
**Results and Analysis**

***DDA eBook Selectors***

The first primary goal of this study was to determine if users would select ebooks through a DDA program. The ebook program was primarily set up to meet the needs of undergraduates and general education studies. However, graduate students and faculty groups also took advantage of the EBL DDA program. The demographics widget, which was implemented in September 2011, verified the selector groups (see Figure 1). Because the DDA predated the widget by six months, 24% of the selections did not have corresponding user demographics. Of the remaining 76%, users were distributed across the following groups: undergraduate, graduate, faculty, and staff.

***Additions to the Collections by General LC Class***

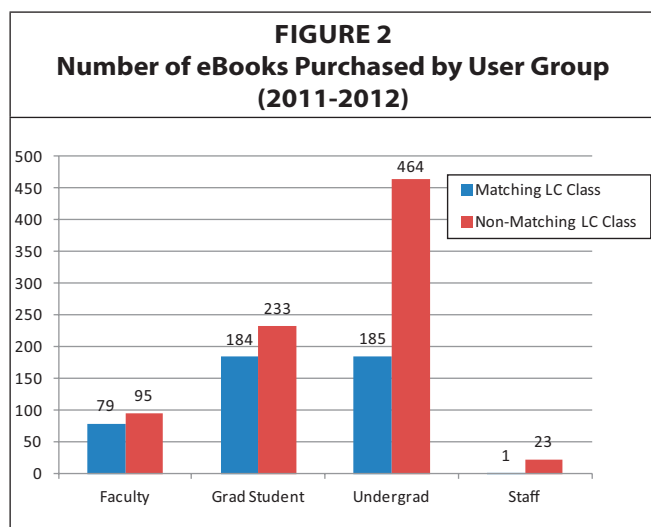
Another goal of this study was to understand user selection behaviors. Do users select materials outside of their discipline area? In order to address this question, users' self-identified discipline areas were assigned an LC general class. For example, an engineering student was assigned the general class T–Technology. The ebooks that the users selected for the most part had LC class numbers. Those that did not were reviewed and identified



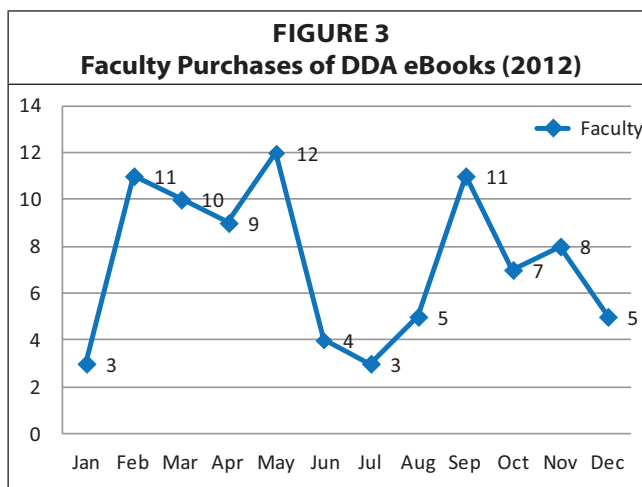
using OCLC’s WorldCat. To ascertain if users select materials outside of their discipline area, these two general class numbers (discipline and ebook) were compared.

Figure 2 displays the number of ebooks purchased by user group from 2011-2012. The faculty and graduate student populations had comparable non-matching and matching ebooks numbers. This was surprising given the focus of faculty and graduate research. It was anticipated that a greater majority of ebooks purchased would have been in their specific discipline. For undergraduate students, the ebooks selected that were outside of their discipline area surpassed the numbers of matching ebooks by a ratio of 2:1. Because undergraduates are required to take a variety of classes, this result is not surprising.

At the onset of the plan, it was determined that the DDA program would be discontinued during the summer months and winter intercession. However,



given that these periods could be prime times for research, the DDA program was changed to year-round. Data on faculty purchases for 2012 is displayed in Figure 3. From the figure, it is evident that the summer months and intercession did not have significant usage. The plan, however, continues year-round to gather more data on faculty usage of the DDA program during these important time periods. It should be noted that there were purchases by all users during those time periods and, if budget allows, the library will likely continue the program year-round.



During 2011 and 2012, 1,716 EBL DDA ebooks were added to the library’s collection. In the same time period, 10,005 were added to the print collection. The percent allocation of these books across general LC class is depicted in Figure 4.

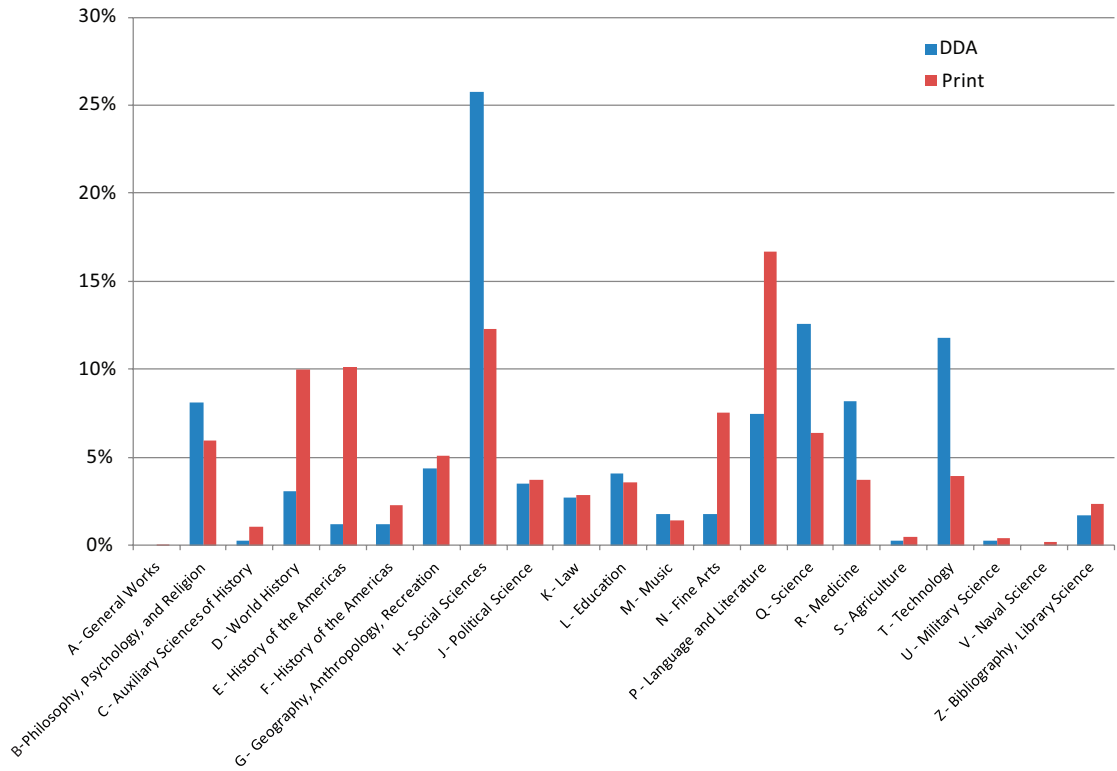
DDA ebooks selected by SJSU users were distributed across a wide range of general classes. Almost every general class was represented, except for classes A–General Works and V–Naval Science. The greatest concentration of books was selected within class H–Social Sciences, followed by classes Q–Science, T–Technology, and R–Medicine.

For the print collection, all LC general classes were represented. The majority of the additions derived from class P–Language and Literature, followed by H–Social Sciences, E–History of the Americas, and D–World History.

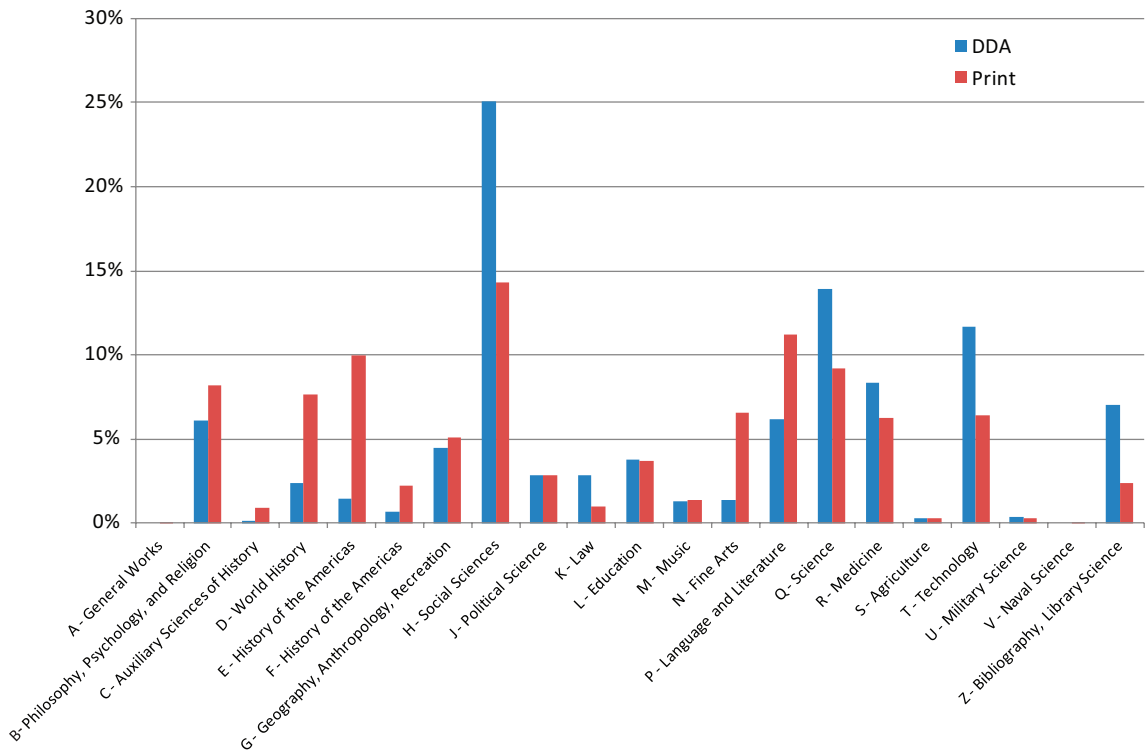
In analyzing the circulation of DDA ebooks and print books, there were some obvious conclusions (see Figure 5).

The sciences, social science, and library science had the highest EBL DDA use. Traditional areas, like

**FIGURE 4**  
**Percent Added to the Collection by LC Class (2011-2012)**



**FIGURE 5**  
**Percent Circulation Across LC Classes by Collection**



**TABLE 4**  
**Non-Circulating 2011-2012 Print Books by LC Class**

	Total Print Books Added in 2011-2012	Percentage of Non-Circulating Books Added in 2011-2012
A-General Works	8	88%
B-Philosophy, Psychology, and Religion	594	36%
C-Auxiliary Sciences of History	103	50%
D-World History	1001	58%
E-History of the Americas	1011	44%
F-History of the Americas	225	43%
G-Geography, Anthropology, Recreation	507	46%
H-Social Sciences	1227	44%
J-Political Science	371	58%
K-Law	287	80%
L-Education	355	52%
M-Music	138	48%
N-Fine Arts	756	50%
P-Language and Literature	1669	62%
Q-Science	640	39%
R-Medicine	375	28%
S-Agriculture	46	59%
T-Technology	392	45%
U-Military Science	43	44%
V-Naval Science	21	90%
Z-Bibliography, Library Science	236	50%
<b>Grand Total</b>	<b>4,978</b>	<b>50%</b>

the humanities and history, had higher percent print circulation. Upon further review of the print circulation, it was more telling to look at individual check-outs by general LC class. As seen in Table 4, the circulation percent of print books purchased in 2011-2012 revealed that within some general LC classes, there were alarming examples of non-use.

Due to the fact that SJSU Library has not retained sufficient historical data on circulation by LC class number, it is difficult to arrive at any conclusions with respect to the impact of ebook usage on print materials' circulation. This is an anticipated area of further research. Given more years of data, the influence of ebooks on print materials could be further clarified.

### Future Research and Conclusions

This study investigated the usage of ebooks on the EBL platform and the use of print items added during the same period. Continuing research could include other ebook platforms and print approval plans to understand how format and selection can impact circulation.

As the DDA program matures at San José State University, further comparison of LC classification ranges and associated circulation among print and ebooks could be investigated. Circulation rates of ebooks and print items need to be monitored to answer questions about space, maintenance, and on-going expenditures.

Past studies on the use of print materials and e-books have typically focused on volume counts and circulation. In these times of budget cuts and questioning the value of the library, it is important to move from those studies to more in-depth analyses of use. DDA plans can offer richer information about e-books usage than traditional print circulation numbers.

This study's results have offered our librarians the opportunity to proactively engage in meaningful conversations about e-books and their value with students, faculty, and staff. Ongoing research is necessary in this area of collection management and faculty-librarian relationships because of the rapidly changing nature of the e-book environment.

### Acknowledgements

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### Notes

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