

## Four Years of Unmediated Demand-Driven Acquisition and 5,000 E-Books Later: We Gave 'Em What They Wanted

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# Four Years of Unmediated Demand-Driven Acquisition and 5,000 E-Books Later: We Gave 'Em What They Wanted

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## Abstract

As one of ebrary's largest academic library DDA customers, the program at the University of Iowa Libraries has been highly successful, though not without challenges. This presentation will present detailed findings from analyzing Iowa's demand-driven acquisition e-book usage data from over 5,000 titles purchased over 4 years, including examining subject areas, prices, publishers, and other relevant metrics. This presentation will serve as update to a popular session at Charleston in 2010 (Give 'Em What They Want: Patron-Driven Collection Development), where the University of Iowa Libraries presented data from a 1-year pilot program. Now, with 4 years of experience under our belts, a lot more data, and over a half-million dollars spent from our coffers, Iowa will share what we have learned, gained, and changed as a result of our experiences.

## Introduction

"We librarians were buying books that no one cared about. We were wasting significant money on books while at the same time we were cancelling serials and databases that were heavily used and needed for both research and classrooms. There had to be a better way" (Dillon, 2011a, p. 157).

The motivations for implementing an e-book demand-driven acquisitions (DDA) program at the University of Iowa were similar to those at other academic libraries. It presents a cost-effective way to purchase books at the user's point of need in addition to our traditional practice of developing well-balanced collections. While the University of Iowa Libraries have been administering a DDA program since 2009, the evolution of our practices have largely been shaped by the recommendations from *Patron-Driven Acquisitions: History and Best Practices* (de Gruyter, 2011), specifically from two of Dennis Dillon's chapters on DDA at the University of Texas at Austin.

Iowa began DDA with ebrary in September 2009 with a range of 20,000–30,000 titles available at any given time. Each DDA purchase was charged to a central e-book fund rather than individual subject funds. Despite these relatively common characteristics, Iowa's DDA program is distinct in several ways: it has been administered for 4 years

without interruption, it is entirely unmediated beyond the initial approval profile, Iowa was one of the first institutions to apply a YBP approval profile to DDA e-books, and we have spent over a half -million dollars on e-books that were used by library patrons.

Iowa's DDA profile was adapted from a YBP approval plan for print books, excluding certain publishers like most Elsevier, Springer, Sage, Brill, Ashgate, and Wiley whose titles are available through other deals. Each DDA purchase was available under a single user license, and all purchases were capped at \$250 per title. Our purchase triggers followed the standard behavior of ten page views of main content, 10 minutes of viewing the main content, or one instance of copying or printing.

## Data Analysis

"The key to budgeting is to know how your customers behave and not just to speculate" (Dillon, 2011a, p. 163).

When starting a DDA program, one must do some speculation, but after you have title and usage information, many decisions going forward can be well informed by data. There were 5,440 titles purchased over a 4 year period that were examined. This study is considerably larger than the study from 3 years ago and published in *College and Research Libraries* in 2012 which

looked at Iowa’s first year with DDA and included 850 titles (Fischer et al., 2012).

User sessions is the metric selected to analyze use; these are defined as “how many times a patron uses a book in unique ebrary sessions” and are counted after the book has been triggered for purchase. The user sessions tracked by ebrary are COUNTER compliant. Data examined are from special reports obtained from ebrary. Standard COUNTER Book Reports only report use by month in a calendar year, not allowing for easy analysis of use over time, and they also omit some necessary fields such as publication date and publisher. The data presented in the following tables illustrate the depth of data and the sort of “actionable” information that may be garnered with DDA statistics.

For the purposes of clarity of forthcoming terminology, when the phrase “risk pool” is used, it refers to the pool of unpurchased DDA titles in the catalog (Dillon, 2011a, p. 161) and “DDA titles” refers to purchased DDA titles.

### *Spending*

Table 1 shows the number of titles purchased and our spending over 4 years, confirming the warnings in the DDA literature that state, as the risk pool of DDA options increases in the catalog, so will the buying (Dillon, 2011a, 165). Our monthly spend went from around \$6,000 per month to over \$16,000 per month as shown in the average cost per month column in Table 1. By May 2013, spending started to exceed \$5,000 per week.

<b>Purchased Date (trigger date)</b>	<b>No. of Titles</b>	<b>Cost</b>	<b>Avg. Cost/Month</b>	<b>Avg. Cost/Title</b>
<b>Year 1</b>	874	\$80,550.18	\$6,712.52	\$92.16
<b>Year 2</b>	844	\$88,752.06	\$7,396.01	\$105.16
<b>Year 3</b>	1742	\$171,315.28	\$14,276.27	\$98.34
<b>Year 4</b>	1980	\$194,412.46	\$16,201.04	\$98.19
<b>Total</b>	<b>5440</b>	<b>\$535,029.98</b>	<b>\$11,146.46</b>	<b>\$98.46</b>

Table 1. DDA Spending

<b>Publisher</b>	<b>No. of Titles</b>
<b>Taylor &amp; Francis (Routledge)</b>	900
<b>Wiley</b>	726
<b>Cambridge University Press</b>	582
<b>Taylor &amp; Francis</b>	475
<b>Palgrave Macmillan</b>	308
<b>Elsevier</b>	209
<b>Sage</b>	126
<b>Guilford Press</b>	124
<b>Oxford University Press</b>	122
<b>Academic Press</b>	109

Table 2. Top Ten Publishers

Notice that the number of titles purchased and our cost increased each year, more than doubling from four years ago the number of titles purchased and the amount spent in a year. The average cost per title remains steady at around \$98, where it has been the past 2 years.

*Publishers*

The top ten publishers represented in the DDA titles are shown in Table 2. Iowa has purchased titles from nearly 200 publishers over 4 years. The top ten publishers are nearly identical to the list from the previous analysis 3 years ago (Fischer et al., 2012). Taylor and Francis, Routledge imprint, remains at the top of the list, accounting for 16% of DDA titles. Added together, all Taylor and

Francis imprints account for 25% of our purchased DDA titles.

As mentioned earlier, Elsevier is blocked on our DDA profile, but this occurred 4 months after we started our program. Sixty-two of the 209 Elsevier titles account for those purchased prior to signing a license to purchase Elsevier’s front lists. The remaining 147 titles are from Elsevier’s health sciences imprint, which is excluded from our front list package deal.

Table 3 shows the top ten university press publishers represented in the DDA titles. There were 1,222 titles purchased from 79 different university presses. Twenty-two percent of the books purchased from DDA have been from a

<b>University Press</b>	<b>No. of Titles</b>
Cambridge University Press	582
Oxford University Press	122
Princeton University Press	56
MIT Press	50
Duke University Press	47
University of Chicago Press	35
University of North Carolina Press	26
University of Minnesota Press	25
University of Toronto Press	24
State University of New York Press	21

**Table 3. Top Ten University Presses**

<b>Publishers</b>	<b>No. of Titles</b>	<b>No. of Sessions</b>	<b>No. of Sessions/ Publisher</b>
McGraw-Hill	108	3315	31
Academic Press	109	1485	14
Guilford Press	124	1654	13
Zed Books	16	205	13
Princeton University Press	56	713	13
University of Minnesota Press	25	259	10
Duke University Press	47	484	10
Jones & Bartlett Learning	60	565	9
Elsevier	209	1930	9
Lawrence Erlbaum	57	490	9

**Table 4. Top Sessions Per Publisher**

university press. I think that as more university presses allowed their content to be purchased via DDA, more will be purchased.

Examining the number of sessions per titles from each publisher is valuable because it illustrates, by publisher, the content that is most valuable to the user, in other words these publishers' titles get the most use per title (Table 4).

The final column displays the average number of sessions titles from the named publishers have received. For example, Academic Press books, of which 109 are owned via DDA, receive an average of 14 sessions per title. Three university presses made this top ten list, reaffirming that university press e-books are used and desired.

Lastly, of note, is McGraw-Hill at the top of the list. McGraw-Hill pulled their content from ebrary (and other e-book distributors) in January 2013. It is evident that our health sciences users highly valued these books. It is expected that as the McGraw-Hill books get older, their value to the user will diminish since the number of McGraw-Hill titles will remain static. And, going forward Iowa is no longer buying title-by-title McGraw-Hill e-books except through their subscription products, for which we do not have archival rights.

### Publication Date

Table 5 indicates our DDA purchases by publication year. The final five rows highlight the fact that the bulk of usage occurs with recent publications, as shown by the number of sessions column and the final column which displays the percent of the total sessions. The most recent 5 years of publications represent 63% of all use.

Interestingly, many titles from older publication years show recent usage. One example is the oldest publication, which gets consistent use, titled *Onset of Stuttering: Research Findings and Implications*, published by University of Minnesota Press in 1958. This book is likely used for coursework in Iowa's top-rated speech pathology program. The use of older publications like this one calls into question a recent decision to restrict our DDA profile to only the 5 most recent years of publications. And, as more "classics" are offered in e-book format, is excluding these from DDA appropriate? Or, if they are left for manual DDA or librarian purchase, will we know what our users may need? Further analysis will involve examining these older titles to see if they are duplicated in print.

Publication Year	No. of Titles	No. of Sessions	% of Total Sessions
1958–1979	9	40	0.10%
1980–1989	13	107	0.30%
1990–1999	44	416	1.10%
2000–2004	143	1451	3.80%
2005	539	4410	11.50%
2006	607	4162	10.90%
2007	435	3632	9.50%
2008	499	4463	11.60%
2009	422	3864	10.10%
2010	637	3984	10.40%
2011	1000	6706	17.50%
2012	934	5113	13.30%

Table 5. Publication Year

LC Class	Subject Area	no. of DDA titles	% of Total Titles
R-RZ	Medicine & Health Sciences	1155	21.20%
HB-HJ	Economics and Commerce	453	8.30%
P-PQ, PT	Languages & Literature	442	8.10%
L-LG	Education	414	7.60%
HM-HX	Sociology	369	6.80%

Table 6. Top Subject Areas

Title	Price	No. of Sessions	Cost/Session
Masculine Jealousy and Contemporary Cinema	\$90.00	487	\$0.18
Current Diagnosis & Treatment: Pediatrics (19 <sup>th</sup> )	\$72.95	318	\$0.23
First Aid for the USMLE Step 3 (2 <sup>nd</sup> )	\$39.95	275	\$0.15
Textbook of Psychiatric Epidemiology (3 <sup>rd</sup> )	\$250.00	259	\$0.97
Roman Games: Historical Sources in Translation	\$91.95	215	\$0.43
Clinical Neuroanatomy (26 <sup>th</sup> )	\$54.95	213	\$0.26
Invisible Hook: The Hidden Economics of Pirates	\$24.95	207	\$0.12
Case Files: Internal Medicine (3 <sup>rd</sup> )	\$32.95	192	\$0.17
McGraw-Hill's GRE (2010)	\$21.00	184	\$0.11
Frederick Douglass: A Biography	\$35.00	160	\$0.22
Media and Cultural Studies	\$41.95	158	\$0.27

Table 7. Highest Use Titles

### *Subject Analysis*

The data for the top five subject areas purchased via DDA are consistent with the disciplines found 3 years ago, except for the bold entrance of the Languages and Literature category, which was nowhere near the top 3 years ago (Table 6). This seems to strongly suggest that faculty and students in the humanities are very willing users of electronic books and may illustrate that more humanities e-books are being made available by publishers.

There are several possible factors for the subject analysis outcome. First, perhaps the users of these subject areas are the most comfortable with using e-books. Second, our current library collection is not adequately supporting these subject areas in monographic offerings due to budget constraints or librarian biases. However, now that heavily monographic disciplines are represented in the

highest subject categories, such as those found in the Languages and Literatures Library of Congress classes, which seems to suggest that this is not the case. Third, it could be that the risk pool includes more books in these subject areas, so the larger the offerings, the more likely they will get purchased. In truth, the answer is probably a combination of all these factors.

One of the possible uses of doing DDA subject analysis at the University of Iowa Libraries is to assist in determining ways to charge DDA purchases to subject funds, rather than a central fund, or to use the data to inform our collections allocations at the beginning of the fiscal year.

### *Highest Use Titles*

The highest use titles are always interesting to examine at any given time (Table 7). What is notable about this current list is that four of the

No. of Sessions	No. of Titles	% of Total Titles Used
1	1139	20.90%
2-9	3380	62.10%
10-19	578	10.60%
20-29	153	2.80%
30-39	55	1.00%
40+	135	2.50%

**Table 8. DDA Usage by Number of Sessions**

Purchase Amount	No. of Titles Purchased	Cost	Projected Savings for 2012
<i>existing price cap of \$250:</i>	<i>1970</i>	<i>\$195,016</i>	
if price cap were \$225:	1930	\$185,128	(\$9,888)
if price cap were \$200:	1887	\$176,103	(\$18,913)
if price cap were \$175:	1792	\$158,177	(\$36,839)
if price cap were \$150:	1634	\$133,042	(\$61,975)

**Table 9. Projected Savings from Reducing the Price Cap from \$250**

titles are from McGraw-Hill, which removed all of their titles this year. Our users heavily use their test preparation books, of which there are two in the list, but use will begin to drop off as the titles get older.

Several titles are older publications, published in 2005 but purchased in 2010 (*Roman Games and Media and Cultural Studies*). This illustrates the demand for older publications, depending on the subject area. The list also demonstrates that nearly all disciplines across campus are benefiting from DDA; the wide range of titles getting high use is impressive. And lastly, note the cost per session column: it illustrates the incredible value these books serve.

### Usage

Table 8 shows the number of user sessions for our DDA titles. Again, the data are consistent with the analysis after our first year of DDA. Twenty-one percent of usage is for titles with a single-use, 73% accounts for between 2–19 uses per title, and 6% accounts for titles with 20-plus uses. It is very encouraging to see that a large percentage of the e-books have obtained subsequent use.

Several well-known studies on the use of print collections, such as the Kent Study in 1979, indicate that only 50% of print books in collection will ever circulate, and that the longer a book goes unused, the less likely it will ever be used (Kent, 1979). The number of sessions our DDA books receive is considerably more than a print counterpart could ever obtain because of the simple logistics of print circulation.

### Controlling Costs

“The first rule of demand-driven acquisitions is: Control the costs” (Dillon, 2011a, 165).

The first of a few adjustments made to control costs was changing the price cap from \$250 to \$225 in March 2013. Preliminary analysis suggested a \$25 dollar adjustment would not drastically affect the DDA pool, yet would save thousands of dollars per year. Higher priced titles would still be available through DDA with the mediation of subject selectors. These manual DDA titles would be charged to their associated subject fund instead of the central DDA fund. Table 9 shows a breakdown of how the price cap can affect DDA spending using spending figures from 2012. For example, the move from \$250 to \$225 is

Titles	No. of Titles	Spend Amt.	Projected Savings with 1-Day Loan
Used Once in: 2009	33	\$3,645.02	(\$3,281)
Used Once in: 2010	127	\$13,304.28	(\$11,974)
Used Once in: 2011	151	\$17,537.23	(\$15,784)
Used Once in: 2012	434	\$43,193.20	(\$38,874)
Total	745	\$77,679.73	(\$69,912)

**Table 10. Short-Term Loan Analysis and Projected Savings**

projected to save roughly \$10,000 even though it would only exclude 40 titles from the risk pool. The lower the price cap, the more titles are excluded.

The second cost-saving measure implemented was a moving wall. The moving wall is a policy to remove titles that were published more than 5 years ago on an annual basis. Iowa first implemented this over in summer 2013 with the result of more than 12,000 unpurchased titles removed from the DDA pool. Many of these titles were published far earlier than 2008 and were available in print. This change helped refocus our e-book collection to newer content. Going forward, subject selectors will be notified about which titles in the pool will be removed. Selectors will then have the choice to purchase the title or move the title to a manual DDA pool. Iowa expects this to account for 1,000 titles each year.

Most recently, Iowa added a short-term loan (STL) option. After looking at the data, the authors noticed that 21% of all DDA titles (Table 8) were used only once and cost about \$108,000 in 4 years. Rather than paying upwards of \$100 for a single-use title, Iowa implemented a one-day STL option at 10% of the list price. The same triggers that apply to DDA purchases apply here as well. The second use of the title initiates a purchase. Table 10 shows an estimate of cost savings from single-use titles from 2009–2012. The STL option is most likely to be effective with single-use titles from 2 or more years ago. Titles used once in the last 2 years are still likely to be used again and trigger a purchase.

The authors looked further into the data to identify how this breaks down by subject. A quick look at Library of Congress call numbers shows a

pretty wide distribution of subjects. In most cases, there was a rate of about 10–30% of titles with one use, the highest being the areas of Religion, Engineering, Political Science, History, and Business. These are areas most likely to see STLs in action.

### **Iowa's Future With DDA**

The University of Iowa Libraries will continue to analyze its DDA program in a number of ways. First, getting more useful reports from ebrary as well and lobbying COUNTER to include additional fields in their next Book Report release is imperative to long-term DDA analysis. Two fields found to be absolutely necessary to do basic e-book analysis are the publication date and the publisher.

Second, what is in the risk pool? By examining the risk pool a better understanding of what is in the pool of unpurchased titles, such as publishers, costs, and subject areas, could be obtained. And consequently, the analysis done to date and in the future will be better informed. The biggest barrier to analyzing the risk pool is that it is not static; titles are added regularly, purchased regularly, and now will be weeded annually. It would be interesting and revealing to study the risk pool by subject area and compare that to the purchased DDA subject areas.

Third, analyzing the effects of the one-day STL option for all our DDA will take place after about a year, to give plenty of time to see how it progresses. Our weekly spend amount has dropped drastically since implementation since all newly triggered titles are loaned first. The weekly spend amount will slowly increase over the next



year as titles that are loaned once garner a second trigger.

Lastly, the University of Iowa Libraries needs to develop procedures for the review and removal of the titles with a publication date older than 5 years on an annual basis. As discussed earlier, an investigation of the impact of a 5-year moving wall on classic and seminal works of scholarship is warranted.

## Conclusion

“Simply put, individual readers know what is in their own interest better than librarians do” (Dillon, 2011b, p. 193).

All libraries considering or already using DDA as a collection development tool must let go of

comfortable patterns of thought and become at ease with less control (Dillon, 2011b). Libraries must also recognize that many users, because they are doing research, working in labs, collaborating with colleagues around the world, and attending to coursework, are suited to identify the resources that will best meet their needs, often before we even know they want it. Much remains to be seen on how DDA will affect publishers’ bottom line and how that will, in turn, impact the pricing and bundling of electronic books. There is no doubt, however, that DDA is a disruptive innovation that will have a lasting effect on library collections and on publishers.

Presentation slides are available at:  
[http://ir.uiowa.edu/lib\\_pubs/145/](http://ir.uiowa.edu/lib_pubs/145/).

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