Demand Driven Acquisition of Monographs

A Recommended Practice of the
National Information Standards Organization

Approved: June 24, 2014

Prepared by the NISO DDA Working Group

About NISO Recommended Practices

A NISO Recommended Practice is a recommended "best practice" or "guideline" for methods, materials, or practices in order to give guidance to the user. Such documents usually represent a leading edge, exceptional model, or proven industry practice. All elements of Recommended Practices are discretionary and may be used as stated or modified by the user to meet specific needs.

This recommended practice may be revised or withdrawn at any time. For current information on the status of this publication contact the NISO office or visit the NISO website (www.niso.org).

Contents

Foreword

About this Recommended Practice

In May 2012, a proposal was submitted to NISO by Michael Levine-Clark (Penrose Library, University of Denver) on behalf of an informal DDA interest group to develop a Recommended Practice for the demand-driven acquisition (DDA) of monographs.

Libraries are increasingly implementing demand-driven acquisition (DDA) plans for some portion of their monograph collections. DDA allows libraries to:

- provide users with immediate access to a wide range of titles to be purchased at the point of need;

- present many more titles to their users for potential use and purchase than would ever be feasible under the traditional purchase model; and

- make it possible, if implemented correctly, to purchase only what is needed, allowing libraries to save money or to spend the same amount as they spend on books now, but with a higher rate of use.

As noted in the Background and Problem Statement (section 1.1), several different DDA models have been in use and a number of issues identified. The proposal suggested that a flexible model for DDA that works for publishers, vendors, aggregators, and libraries be developed to allow libraries to develop DDA plans that meet differing local collecting and budgetary needs while also allowing consortial participation and cross-aggregator implementation.

The proposal was approved by the NISO Business Information Topic Committee and Voting Members in May and June 2012, respectively, and a Working Group was formed in August 2012. Libraries, publishers, e-book aggregators, approval vendors, and discovery and catalog record providers will all be impacted by DDA and are represented on the DDA Working Group.

NISO BI Topic Committee Members

The following individuals served on the NISO Business Information Topic Committee that had oversight for this work and approved this Recommended Practice.

Nawin Gupta
Association of Subscription Agents (ASA)

Timothy Strawn
California Polytechnic State University

Christine Stamison
Center for Research Libraries

Norm Medeiros
Haverford College

Greg Raschke
North Carolina State University Libraries

Karla Strieb
Ohio State University Libraries

Denise Davis
Sacramento Public Library

Gary Van Overborg
Scholarly iQ

Charles Watkinson
University of Michigan Library

DDA Working Group Members

The following individuals served on the NISO Demand Driven Acquisition Working Group that developed and approved this Recommended Practice:

Lenny Allen
Oxford University Press

Stephen Bosch
University of Arizona

Scott Bourns
JSTOR

Karin Byström
Uppsala University

Terry Ehling
Project Muse

Barbara Kawecki (Co-chair)
YBP Library Services

Lorraine Keelan (Chair, Metrics Subcommittee)
Palgrave Macmillan

Michael Levine-Clark (Co-chair)
University of Denver

Rochelle Logan
Douglas County Libraries

Lisa Mackinder (Chair, Access Models Subcommittee)
University of California, Irvine

Norm Medeiros (Liaison to Business Information Committee)
Haverford College

Lisa Nachtigall (Chair, Technical Issues Subcommittee)
Wiley

Kari Paulson
ProQuest

Cory Polonetsky
Elsevier

Jason Price
Statewide California Electronic Library Consortium (SCELC)

Dana Sharvit
Ex Libris

David Whitehair
OCLC

Acknowledgments

Trademarks and Service Marks

Section 1: Introduction

Demand-Driven Acquisition (DDA) has become a common component of academic library collection development strategies, and is poised to expand to other types of libraries. There are a wide variety of ways in which DDA can be accomplished; this document provides an overview of those options and concludes with specific recommendations in order to give guidance to libraries, publishers, aggregators, and vendors as they implement and manage DDA programs.

1.1 Background and Problem Statement

Libraries are using e-book aggregators and approval vendors to implement demand-driven acquisition (DDA) plans for some portion of their monograph collections. DDA allows libraries to provide users with immediate access to a wide range of titles to be purchased at the point of need. Though commonly referred to as patron-driven acquisition (PDA), the term demand-driven acquisition (DDA) is used throughout this Recommended Practice.

Libraries have embraced DDA because it has the potential to rebalance the collection away from possible use toward immediate need. DDA allows libraries to present many more titles to their users for potential use and purchase than would ever be feasible under the traditional purchase model. If implemented correctly, DDA makes it possible to purchase only what is needed, allowing libraries to spend the same amount of money as they spend on books now, but with a higher rate of use. Libraries may also be able to use the evidence of demand to demonstrate the value of monograph collections and in turn to protect monograph budgets from potential cuts.

Under a traditional up-front purchase model for monographs, the acquisition process ends soon after the book arrives in the library. DDA, on the other hand, requires long-term management of a preselected "consideration pool" of titles available for purchase. Libraries must implement rules and procedures for adding titles to this pool and for keeping un-owned titles available for purchase long after publication. These procedures could include automated steps for removing a subset of records at regular intervals while keeping others permanently, for indicating owned vs. un-owned content, and for managing the budget when expenditures may not be fully predictable. The process of acquisition evolves from one of getting books into the collection to one of long-term management of the discovery tools that allow for demand-driven access to monographs.

To this point, DDA has been adopted primarily by academic libraries, with very few public libraries participating in DDA projects. Because of this broader experience with DDA, some particular concerns for academic libraries, scholarly publishers, and approval vendors are already becoming clear.

- DDA may disrupt the entire scholarly communication supply chain, therefore libraries, publishers, and aggregators must be committed to working together to establish long-term sustainable models that highlight mutual benefits.

- The purchase of a book may extend over many years, causing publishers to lose the ability to plan for a financially sound program to support the dissemination of research.

- Approval vendors will need to transition from booksellers to suppliers of services to manage the consideration pool.

- Libraries will need to reconsider the balance between stewardship of research collections and provision of access to materials for current curricular and research needs.

Despite these uncertainties, it is clear that DDA will be adopted on some scale by libraries, so publishers, vendors, suppliers, and librarians need to help shape practices and tools in a way that allows the scholarly communication supply chain to continue to function effectively. Because some or all of these issues may be of concern as well to public libraries and the publishers and vendors that supply them with books, this committee has explored further the specific implications of DDA for all library types.

Most DDA plans have focused on e-books, though some have also included print books (p-books). Though some specific aspects of acquisition do vary by format, there are more similarities than differences in how the DDA process should work for both formats. Because of this, a single set of best practices for both formats was developed, with articulation of differences where they occur.

1.2 Scope

This Recommended Practice is intended to identify best practices for DDA that work for publishers, vendors, aggregators, and libraries. These guidelines will allow libraries to develop DDA plans that meet differing local collecting and budgetary needs while also allowing consortial participation and cross-aggregator implementation. They will take into account impacts of DDA across all functional areas of the library.

The recommendations address:

- Best practices for populating and managing the pool of titles under consideration for potential purchase, including methods for automated updating and removal of discovery records

- Development of consistent models for the three basic aspects of e-book DDA—free discovery to prevent inadvertent transactions, temporary lease, and purchase—that work for publishers and libraries

- Methods for managing DDA of print and electronic books

- Ways in which print-on-demand (POD) solutions can be linked to DDA

- Development of tools and strategies for measurement of use

- Models for implementation at both the local and consortial levels

- Guidelines for providing long-term access to un-owned e-book content

1.3 Methodology

The information included in this document was generated from several focus groups conducted by this Working Group; three surveys, which are summarized as an appendix; and from the knowledge and experience of the Working Group members. Other than the survey appendix, information gathered from these sources is not cited in this document.

1.4 Terms and Definitions

The terms as used in this Recommended Practice, have the meanings indicated below.

Term	Definition
add file	A set of discovery records generated to match new titles available in a library's consideration pool, and used to add those records to a library's catalog and discovery tools.

Term	Definition
auto-purchase	Within a DDA program, a purchase by the library of perpetual access to an e-book based on usage by a patron. Depending on how a library has configured its DDA program, an auto-purchase can occur after a set number of uses of a book or after a set number of short-term loans. When the generic term "purchase" is used in this document, it is referring to an auto-purchase.
consideration pool	All of the books available for potential purchase within a library's DDA program.
delete file	A set of discovery records or record IDs generated to match titles no longer available in a library's consideration pool, and used to remove records from a library's catalog and discovery tools.
demand-driven acquisition (DDA)	Acquisition of library materials based on patron use at the point of need.
discovery record	A MARC record supplied to a library by a supplier/vendor to enable discovery of a title within the consideration pool.
evidence-based acquisition (EBA)	A DDA model in which libraries negotiate with a vendor or publisher to provide access to a pool of e-books in exchange for an agreement to purchase books valued at a set amount at the end of the program (typically after one year). Libraries can use their own criteria to make purchase selections, but typically base them on use. Also known as *evidence-based selection (EBS)* or *usage-driven acquisition (UDA)*.
free discovery	A feature of some DDA models that provides free access to an e-book before a trigger occurs. This is typically based on some limited amount of time viewing the book, on examination of a set number of pages, or on accessing certain portions of the book such as the front matter. Also referred to as *free browse*.
multiplier	In consortial DDA programs, a number applied to the purchase price of the book to determine how much the consortium will pay for shared access. For example, a consortium using a multiplier of five would pay five times the list price for the book. The multiplier is negotiated between the consortium and the publisher via the aggregator.
patron-driven acquisition (PDA)	Commonly used synonymously with **demand-driven acquisition**, but also can be used more broadly to refer to acquisition of library materials based on direct or indirect patron input, including faculty requests and analysis of collection usage. In its common usage, referred to throughout this document as **demand-driven acquisition (DDA)**.

Term	Definition
point-of-purchase record	A MARC record loaded by a library after purchase of a title via a DDA program; intended to be used permanently.
post-purchase use	Any usage of a book that occurs after an auto-purchase. Compare to **pre-purchase use**.
pre-purchase use	Any usage of a book that occurs before an auto-purchase. Compare to **post-purchase use**.
short-term loan (STL)	A lease of an e-book for a brief period (generally one day, one week, or one month) within a DDA program.
trigger	Any event within a DDA program that causes a financial transaction (such as a short-term loan or auto-purchase) to occur.
un-owned title	A book within the consideration pool that has not yet had enough usage to trigger a purchase.
update file	A set of discovery records generated to match the titles available in a library's consideration pool, and used to replace all existing records for those titles.

Section 2: Key Aspects of DDA

DDA programs have been structured in a variety of ways, but successful and sustainable programs have incorporated one or more of the components listed below. Different libraries, publishers, and suppliers will emphasize these aspects in different ways, depending on local needs and philosophies.

2.1 Sustainability

It is crucial that demand-driven acquisition models be sustainable for publishers and libraries, and by extension the vendors that supply them. DDA will only work for libraries if they can provide a large amount of content to their users without the risk of overspending their budgets. Pricing levels and triggers need to be set so that with normal discovery and use the program can run throughout the year and not have to be disabled because of budget shortfalls. A model that sets prices too high or triggers too low makes DDA unsustainable for libraries.

Publishers need pricing models to be set at a level that allows them to maintain revenue and continue to publish books. A model that cuts publisher revenue too much may be sustainable in the short term, but in the long run will damage the scholarly communication ecosystem. Though recommendations on how to set pricing are well beyond the scope of this project, it is crucial to recognize that models in combination with pricing must work for all stakeholders.

2.2 Free Discovery

In early DDA programs that did not provide an opportunity for users to determine if a book met their needs, libraries and consortia ended up buying large numbers of un-needed books and overspending their budgets. Some of these early programs were forced to shut down within weeks. An option for free discovery of content, which is present in more mature DDA programs, has made DDA sustainable for libraries, and is a crucial feature of these programs. Some models for free discovery include granting full access to content for a set amount of time (e.g., five or ten minutes), providing unlimited full access to some portion of the book (such as the table of contents and introduction), or allowing access to a set number of pages before a trigger occurs.

Establishing some method of free discovery ensures that most uses of a book that trigger a financial transaction are substantial and meaningful. Without free discovery, users can accidentally trigger short-term loans and purchases based on false hits; users first need to be able to determine whether a book is relevant to their topic and will meet their research needs. Free discovery needs to be set at a level that prevents unintended purchases but that does not allow too much meaningful use to occur for free (and thus not provide revenue to publishers, aggregators, and vendors).

Though less desirable, providing free access to the entire book for the first *n* sessions may also prevent unintended purchase. This model does not prevent multiple false hits from triggering a purchase, but it does ensure that books are not purchased based on a single false hit.

2.3 Temporary Lease

Some DDA programs involve the temporary lease of e-books through short-term loans (STL). STLs allow a library to pay for a single use of a day, a week, or a month for a fraction of the cost of purchasing the

book outright. Since most books in academic library collections only get used a handful of times,[1] STLs make it possible for libraries to pay for this lower level of use. Some programs allow libraries to decide how many STLs will occur before a purchase is triggered; others allow that decision but have a set upper limit, while others do not allow STLs at all. Most libraries that implement STL-based programs use them in conjunction with an ultimate purchase. Some libraries have made it clear that they are interested in DDA programs that use only STLs and never involve a purchase. Others have set up programs without STLs, with all significant use leading to a purchase. As discussed in Section 3:, the use of a temporary lease or STL option for any library should be tied directly to the overarching goals of the library's DDA program.

STLs can vary in length, with almost all libraries opting for a one- or seven-day loan. Longer STLs are more expensive but in some cases will be cheaper than allowing several one-day STLs to the same patron in a one-week period. It is unlikely that there would be an overall savings across a whole DDA program, so purely from a cost standpoint, libraries will benefit from the shortest STL possible. However, there are enough libraries that desire longer STLs that aggregators and publishers should be as flexible as possible in this regard.

While it is clear that libraries that choose to use an STL model will see significant savings over the cost of purchasing the books that get used, this model, as currently configured, may not be sustainable for publishers over time. STL revenue may not replace the lost revenue from a purchase model, even if factoring in additional libraries making available titles via DDA that they never would have purchased in a traditional acquisitions model.

Publishers reporting decreased revenue are questioning whether STLs have contributed to that trend. However, most DDA programs are relatively new, and it may be the case that it takes a longer time than these programs have been in existence for books to generate a combination of enough STLs and purchases to replace lost revenue from purchases alone. It is important to acknowledge the reality that there may be loss of revenue and that loss of revenue may negatively impact publishers' ability to publish books and support the scholarly ecosystem. We must establish STL models that take into account this financial reality or STL as a model will not be sustainable at all.

2.4 Purchase

All DDA programs offer the option to purchase, though a few libraries have chosen to use only STLs for at least a portion of their program. STL-only programs are relatively uncommon and there is a clear preference in most libraries to purchase the most heavily used materials. Within a DDA program for e-books, the purchase can be considered either as the ultimate goal (with perpetual access being the point of the program and patron choices driving collection development) or as the most affordable means of providing access to some material (with perpetual access being cheaper in the long run than incurring additional STL costs for the most heavily-used books, and ultimately cheaper than an e-book subscription package). Since libraries will have varying aims, the point at which purchase occurs should be flexible.

Purchase is the only option for DDA of print books. Though libraries can choose to mediate this process, or to only purchase after a set number of requests, purchase is the only way to gain access to a print book in a DDA program.

Some libraries have expressed interest in a mediated purchasing model, in which STLs and other usage would be tracked and then the library would determine which titles to purchase based on those use

---

1 See, for instance:
   Kent, Allen, et al. *Use of Library Materials: The University of Pittsburgh Study*. New York: Marcel Dekker, 1979.
   Tyler, David C. et al. "Just How Right are the Customers? An Analysis of the Relative Performance of Patron-Initiated Interlibrary Loan Monograph Purchases." *Collection Management*, 2010, 35 (3): 162-179.

patterns. One possible use for this model would be to manage profiling, record loads, and temporary lease through an aggregator platform, but purchase the e-book on the publisher platform.

2.5 Alternative Models

A DDA program that involves free discovery, short-term loans, and ultimately purchase based on automatic triggers requires sophisticated technical systems to make it work. Vendors and publishers that wish to offer DDA to their library customers should explore models that allow them to do so without having to invest in additional software development.

One such alternative model, used successfully by several publishers, is evidence-based acquisition (EBA), also known as evidence-based selection (EBS) or usage-driven acquisition (UDA). In this model, a publisher agrees to provide access to some of its titles for a set time period (generally one year) and a library agrees to pay a set sum for perpetual access to some portion of those titles at the end of the time period. After the period of the program is up, the publisher supplies usage data to the library and the library chooses books, valued at or above the agreed upon purchase price. Ideally the library will end up acquiring books with significant use, but the risk for libraries is that they will end up committing more money than usage justifies, ultimately purchasing books with little or no use. The risk for the publisher is that if the library does not commit enough money, the library's patrons will use content that the library might not in the end pay for. It is important, therefore, to come up with an appropriate spending level. The publisher and library should understand that this may be an iterative process, with that amount adjusting over many years of such a plan.

Section 3: Goals and Objectives of a DDA Program

In establishing a DDA program, the first thing to consider is the overall goals of the program. DDA can be used to provide access to a much larger collection than is possible under a traditional model. It also can be used to save money or to reallocate funds within the collections budget. In many cases, DDA can provide access to a larger collection while still saving money over a traditional purchase model. DDA can also be used to build a permanent collection.

3.1 Breadth of the Program

DDA can be considered as a primary means of building monographic collections or as a supplement to existing practices. Libraries establishing a DDA program will need to think carefully about why they are establishing the program, which will contribute to decisions about how large a pool of titles to make available, what sort of profile(s) to establish, how many suppliers to use, whether or not to incorporate print, and how large a budget to establish.

The universe of titles available becomes increasingly large as libraries make choices that expand a DDA program. Some monographs will not be published as e-books, and even those published as e-books may not be available via a DDA model, so a library that wants to be as comprehensive as possible should consider including print DDA. E-books are often limited to a small number of aggregator platforms (which offer different DDA models) or to only a publisher platform (which is generally limited by infrastructure to an evidence-based model). Libraries that wish to be expansive will, therefore, need to work with multiple suppliers and multiple DDA models.

3.2 Access vs. Ownership

In DDA programs, there will be a tradeoff between goals of permanent acquisition and temporary access to titles. If ownership is the goal, libraries will wish to purchase titles early in the usage cycle. In general, this goal will be more expensive, but libraries will have permanent access to all titles that reach the minimum level of usage. If broad access is the goal, libraries will wish to purchase titles late in the usage cycle or not at all. In general, this goal will be cheaper, libraries will be able to afford access to more titles, but will have perpetual access to relatively few titles.

In practical terms, the more STLs a library puts in place before a purchase is triggered, the less that library will spend overall, but the fewer books that library will ultimately own.[2] Libraries with few or no STLs prior to purchase will spend more money, but will have perpetual access rights to more content. DDA programs should be flexible enough to serve the entire range of needs from pure ownership to pure access.

---

[2] Way, Doug, and Julie Garrison. "Financial Implications of Demand-Driven Acquisitions: A Case Study of the Value of Short-Term Loans." In: David Swords, ed. *Patron-Driven Acquisitions: History and Best Practices*. Berlin: De Gruyter Saur, 2011: 137-156.

Section 4: Choosing Parameters of the Program

Broadly speaking, DDA is a process in which libraries provide access to a range of materials and then pay for use based on patron need, but there are many ways to achieve DDA. When implementing a program, libraries should consider their goals first and then determine which of the various components of DDA outlined below will work with those goals.

4.1 Overall Goal and Philosophy of the Program

A library's goals, as laid out in Section 3:, will determine how it structures a program. On one end of the scale, a library could set up a DDA plan with auto-purchases only, effectively buying a book on the first use. This model will be the most expensive, since every use will be equivalent to the full price of a book, so libraries using only auto-purchases will be able to provide fewer books to their users relative to their budget. At the other end of the scale, a library could set up a DDA plan that involves only short-term loans (STLs), renting the book on every use. This model will be far cheaper per-transaction, and since most books are used only a few times, the overall cost will be cheaper for most titles. Those titles with high levels of use might end up incurring charges of many multiples of the list price of the book. In general, though, an STL-only model would be less expensive and a library would be able to provide more books to its users relative to the budget. In reality, most libraries use a combination of STLs and auto-purchases, with the purchase occurring after a set number of STLs. The more STLs before the purchase, the lower the overall cost of the program and the larger the number of books the library can present to its users. Conceivably, if a high enough percentage of titles in a consideration pool was purchased after a set number of STLs, the overall cost could be higher than the value of the entire consideration pool, but this has not been the experience in general.

4.2 Triggers and Transactions

4.2.1 Overview

A trigger is any action within a DDA program that causes a financial transaction to occur. The choice about how to implement triggers in relation to transactions will dictate how many books a library can present to its users, how much money that library will spend, and how many books will become part of the permanent collection.

The financial transaction is the type of payment made for a particular use. There are two basic types of transactions:

- A short-term loan, which is made for a brief period and is cheaper than the cost to purchase the e-book

- A purchase, which leads to perpetual access, and is generally the full list price of the book or more

In some DDA programs, some uses are free and will not trigger any transaction. And in some DDA programs, a trigger occurs after a set number of uses, with those uses cumulating to trigger a transaction. Often, there is a free period of use for a book (either a set number of pages or a set amount of time) and once that limit is passed, a transaction will be triggered. In addition, in some programs some types of use, such as a download, a print, or a copy/paste, will always trigger a transaction. Most programs allow the use of fund codes to track the financial transactions at the subject level.

4.2.2 Automatic Financial Transactions

There are two types of automatic financial transactions: STLs and auto-purchases. These can be configured to work together or can be used separately. When setting up a DDA program, a library needs to determine first whether it wishes to use either or both of these transaction types. With no STLs, any significant usage (beyond the free discovery period) will cause a purchase of a book at the full price, but there will be no additional charges for that book. STLs are cheaper and cover all use of most titles, but do not ever lead to ownership on their own.

The second consideration, for programs using both types of transactions, is how many STLs to use before purchase. As described above, with more STLs a library will spend less money on the overall program, but will own fewer books at the end of it. With fewer STLs, the opposite will occur. These levels can be adjusted over time as a library gains more experience with DDA usage patterns.

STLs are not always an option. Some vendors trigger an auto-purchase after a set number of uses. For example, the first two uses of an e-book, no matter what the length, might be free, with an auto-purchase occurring on the third use.

With other vendors, while STLs are an option, there are limitations in the number that can be used before an auto-purchase. For example, a library could establish a program with up to three STLs before an auto-purchase.

In some cases, in order to protect list-price sales of titles, a publisher may opt to restrict the number of STLs or not allow them at all, even through vendors where STLs are generally an option.

A library might wish to use different transaction models for different types of materials; for instance, having more STLs for books on technology than for books in the humanities. Though no DDA providers are set up to have multiple levels of this sort, a library could set up multiple profiles with one supplier, each with different rules.

4.2.3 Evidence-Based Acquisition (EBA)

Evidence-based acquisition, also known as evidence-based selection, is triggered by reaching the end of an agreed upon time period and spending a pre-negotiated amount of money, making title selections based on the evidence of usage gathered during the trial access period. With EBA, the three decision points libraries and publishers should reach together in setting up a program are:

- **Which titles to make available** – This can be the entire package of titles available on the platform, a subject-based collection, a collection limited by publication date, or a selection of individual titles.

- **How long to make the titles available before making a decision about which ones to purchase** – Libraries should typically make the titles available for a significant amount of time, ideally passing through an entire year and allowing the materials to be available during the entire academic cycle. It is worth noting that titles published and added to the pool near the end of the time period that the EBA program is running will have less opportunity for use than those added at or near the start of that period.

- **How much money the library will either pledge or deposit** – Though there are many ways of coming up with this amount, one that is often used as a starting point in negotiations is to base it on recent annual spending on monographs from that publisher. This guarantees the publisher the same revenue it received in the past and ensures that the library spends no more than it would have spent anyway. After a year of such a program, the library and publisher can renegotiate based on usage.

Mediation is a key aspect of EBA, with the librarian making decisions about what books to purchase based on an evaluation of usage data. Some librarians will value this extra level of oversight, while others will wish for a less labor-intensive unmediated program.

4.3   Loan Periods

After determining the trigger points and transaction types, the next step, if using short-term loans, is to determine loan periods. Existing programs give options of one-day, one-week, and one-month loans, though most libraries use either a one-day or one-week loan (with a one-day loan being most common). The shorter loans will cost less per loan, and may cost less over the entire program. However, many one-day STLs tend to cluster within a relatively short amount of time, so a one-week or one-month loan might decrease the overall number of STLs for some titles. It is doubtful that this would decrease costs over an entire program. For this reason, libraries should utilize the shortest loan period possible.

4.4   Print

Another consideration when setting up a program is whether to include print books. Most DDA programs include only e-books, which can be made available to users instantly. With print, the delivery period will take days or more. When deciding whether to include print, libraries should gauge their users' willingness to endure a delay in receiving a needed volume, and then should decide how long that delay should be. Things to consider when establishing a print DDA program include whether and how to duplicate e-books, how to decide which print titles will be included in the pool, where to order the books, and how much to rely on expedited ordering and mailing with their added costs. Many titles are still published only in print or have an e-book version that is not available via a DDA program, so libraries striving for comprehensive coverage will want to include print. Because titles may go out of print, libraries undertaking print DDA should be aware that titles added to the pool may not be available for the long term, and may wish to work with vendors to develop mechanisms to periodically check older titles in the pool against sources such as *Books in Print* and approval vendor and used-book databases and purge discovery records for titles that are no longer available.

4.5   Print on Demand (POD)

There are two types of print-on-demand (POD) service that can impact DDA. Supplier-based POD, in which books are printed on demand and then mailed to a customer, could be used as part of a print DDA program. Supplier-based POD may reduce the risk that print DDA programs will generate demand for titles that are no longer available, because supplier-based POD makes it easier for publishers to keep books available after a print run has been exhausted.

Local POD, in which books are printed on demand at the library, is an appealing option for libraries that wish to provide near-immediate access to paper copies of books through a DDA program. Unfortunately, the existing options for local POD have a relatively small amount of recent content available at this point.

4.6   Suppliers

4.6.1   Overview

There is a range of different suppliers of books, some of which have dedicated DDA programs and infrastructure, and others which can handle only some aspects of DDA. In the context of this discussion, a supplier is the entity that sells the book, and in some cases is the entity that hosts the e-book. It is important to be aware that not all suppliers have access to the same titles and, even if they do, some suppliers may not have a DDA-eligible version of an e-book. A supplier is often the platform provider

(and always is in the case of e-book aggregators and publisher-hosted platforms) but not always (as in the case of the approval vendor that brokers delivery of content across a range of platforms). Approval vendors work with a range of these suppliers, and generally broker the same options that are described in sections 4.6.2 through 4.6.5 (for instance, because commercial aggregators offer unmediated DDA, so too do approval vendors).

At this point, e-books are available from aggregators and directly from publishers. Not every book is available from both types of sources. Nor is every e-book available from every aggregator. Because of this, it is impossible at this point to achieve comprehensive coverage of e-books from a single supplier and it is a challenge to determine which titles will be available on which platform.

Libraries can choose to work with specific aggregators or publishers as direct suppliers, work with specific aggregators and publishers through an approval plan, or work with an approval plan to receive the first available version of an e-book from a range of aggregators and publishers.

The more e-book suppliers a library works with, the greater chance there is for duplication. Duplication can occur between different DDA programs, but also with subscription and perpetual access packages. An approval vendor can manage duplication across platforms for content made available via the approval plan and/or purchased via the approval vendor. When libraries opt to work with multiple e-book vendors directly, they must handle duplication across platforms on their own.

Libraries opting to do print DDA can work with the approval vendor and integrate print and e-book DDA into one profile, or can manage print DDA through a much wider range of suppliers.

4.6.2   Commercial Aggregator

Aggregators provide access to far more titles than do individual publishers. Instead of just having the books from a single publisher, they make available books from a wide range of publishers. Every aggregator will have a slightly different mix of publishers and titles available on its platform, but not necessarily all titles from a publisher. Inevitably, when choosing to work with a single aggregator, a library is also choosing to not receive some content.

Aggregators are often set up to manage DDA programs automatically. Of the three platform types (commercial aggregator, university press aggregator, publisher), commercial aggregators have traditionally been the only ones to offer unmediated, seamless DDA, though this landscape is rapidly changing. And only aggregators currently use STLs and free discovery because of the high cost of developing the technological infrastructure to manage these aspects of DDA. But not all aggregators offer these features. Each aggregator has a slightly different model, so it is important to familiarize yourself with them before embarking on a plan.

Aggregators generally have more restrictive digital rights management (DRM) than do publishers, meaning that aggregator hosted e-books may have greater restrictions on simultaneous use, printing, downloading, copying, and sharing. For this reason, even though an aggregator may have a platform that a library would otherwise prefer and offer an unmediated model, some libraries may opt to work directly with the publisher on the publisher's platform in order to offer e-books with less restrictive usage rights. Mediated purchasing, as described in section 2.4, would allow libraries to manage most of the DDA process through an aggregator but to purchase a title on a publisher platform.

4.6.3   University Press Aggregator

There are several aggregated platforms that are managed by university presses or not-for-profits and which focus on university press and other scholarly content. Though similar to commercial aggregators in their breadth of content across a range of publishers, they are closer to publisher platforms in terms of application of DRM and less automated DDA processes. Some of these are actively developing DDA programs that will more closely resemble those of commercial aggregators. Because this landscape is

evolving rapidly, it is important to take into account the same issues one would in examining other aggregator and publisher platforms.

4.6.4 Publisher

Publishers often provide access to more of their content on their own platform than they make available to aggregators, and generally do so with less DRM. In some cases there are titles available on the publisher platform that are not on the aggregator platform, and vice versa.

Publisher platforms have not yet been designed to manage unmediated DDA. When choosing to use a publisher platform for a DDA program, a library is therefore choosing evidence-based acquisition as its DDA model.

Some libraries may choose to use a publisher platform for content reasons and some may do so because of concerns about restrictive DRM on the aggregator platforms.

4.6.5 Approval Vendor

Another thing to consider when setting up a DDA program is whether to manage it through an approval vendor. The benefits of working with an approval vendor are integration with and de-duplication against a broader book approval plan or any other type of monographic purchasing such as firm ordering, the ability to profile at a more nuanced level than is possible with aggregator plans, and the ability to manage plans and de-duplicate across multiple aggregators. Approval vendors can also incorporate discovery records into the same cycle as a library's approval record loads.

As long as aggregators work with different publishers, libraries that wish to have a broad range of content will need to work with multiple aggregators. Without working with an approval vendor, they will need to de-duplicate between aggregators manually (or develop local automated processes). Libraries can also set up separate profiles with multiple aggregators, but this will likely lead to some level of duplication.

Libraries planning to develop print DDA programs will most likely want to work with an approval vendor who can help them with profiling, de-duplication with e-book profiles, record delivery, and acquisition.

Libraries that do not have existing approval plans and want to work with only one aggregator for a DDA plan may not need the added services of an approval vendor, but many libraries without approval plans have opted to work with approval vendors for DDA, even when working with a single aggregator, because of the benefits of profiling, de-duplication, and integration with other monographic purchasing and record maintenance.

Section 5: Profiling

Determining which titles to add to a DDA pool is a complex process that should involve a determination of the ideal pool size relative to budget, a determination of how broadly or narrowly to define subjects based on programmatic needs and institutional goals, and then careful profiling to determine that the right sorts of books are added to the pool.

5.1 Ensuring a Pool of Adequate Size Relative to Budget and User Base

No library today can afford to buy every book published, print or electronic. Many of the early DDA programs that allowed all of an aggregator's titles into a consideration pool were very short-lived programs because the library spent too much money too quickly. Some libraries found that there was too much popular content in the consideration pool, or other content that they would have never considered purchasing, like textbooks, how-to manuals, and reprints. For most libraries, DDA is only one of the methods used to acquire books. Many libraries want to integrate this program with their already existing collection development activities such as their approval plan and firm ordering.

In the DDA environment, profiling allows a library to restrict the titles that are allowed into the consideration pool, using such parameters as content level, date of publication, subject, publisher, licensing model, country of origin, price, and language. Profiling also allows a library to build its consideration pool by including only new, front list titles rather than adding titles that were previously published, but are "new" electronically. The majority of libraries with DDA programs today have profiles that are different from their approval plan profile and many libraries that do not even have an approval plan have DDA profiles with an approval vendor. While a traditional approval plan profile is meant to narrow or focus the universe of academic publishing, a DDA profile has the opposite goal. A profile for a demand-driven program should be far broader in order to provide patrons access to the widest range of titles that meet an appropriate set of criteria.

5.2 Identifying Books (Subject and Non-Subject Parameters)

When building a profile for DDA, a library has many parameters to choose from. The major broad categories include series, publisher, subject, and also non-subject parameters such as content level, price, date of publication, and formats like textbook and reprint. If a library is coordinating its DDA program with its approval plan, it may allow the titles that it did not wish to receive automatically to be fed into its consideration pool. Since the purpose of a DDA program is to provide access, but not necessarily acquire, the parameters or rules for a profile for a DDA program should be far broader and more comprehensive than those of an approval profile.

There are multiple ways to consider expanding a profile for DDA. A library may choose to expand within subjects already covered by broadening non-subject parameters, for example allowing formats or publishers previously excluded. A library could also opt to expand the range of subjects beyond its core curricular focus, for example including a subject (such as linguistics or architecture) that is not taught but which may have relevance within other areas of teaching and learning. Finally, a library might choose to expand to all subject areas, with the expectation that its patrons will end up choosing some material that might not meet current collection development parameters. Though not easy to accomplish under current models, a library might wish to have a higher number of STLs before purchase for peripheral subject areas than for core subjects.

5.3   Relationship to Print – To Duplicate or Not to Duplicate

Depending on the goals of a library's DDA program, the library will need to decide whether or not it wants to allow duplication with its existing print collection. Thus far, libraries are split on whether or not they allow duplication, with the majority allowing duplication in at least some cases. Libraries that are trying to assess their patron's acceptance of e-books as a format generally allow duplication with their print collection so that the patron has a choice of both electronic and print. Libraries that establish programs that are designed to save money may decide that they cannot afford to allow duplication.

5.4   Retrospective Titles

It is universally recommended that any DDA program should also include a load of retrospective titles to build the consideration pool. There is a direct correlation between size of the consideration pool and spending. A consideration pool that is too small and/or narrow will see little activity and will not spend the budget allocated. By the same token, a consideration pool that is too large may lead to overspending and/or may necessitate turning off access to some portion of titles earlier than planned. A library must find the balance between the size of the pool and spending goals. This balance will help determine how far back to go retrospectively.

Section 6: Managing MARC Records for DDA

A DDA program is built upon a variety of MARC record types. The consideration pool is accessible via discovery records, which are generally replaced with point-of-purchase records once titles are purchased. When managing MARC records, libraries will need to determine how these different types will interact with the various tools used by a library to manage discoverability, access, acquisition, and usage. The management of MARC records includes the process of adding discovery records, removing and replacing records due to changes in access and/or availability, and upgrading records when a title has been purchased. To facilitate this process, most libraries use update files, which include records to be added, deleted, or updated.

6.1 Discovery Records

Discovery records are the MARC records that serve as the foundation of any DDA program. Whether libraries choose to get their discovery records from the e-book aggregator, the library approval vendor, a bibliographic utility, or any other MARC record provider, they should carefully consider local practices and how much customization they are looking for to support DDA.

6.1.1 Customization and Enrichment

Discovery records can be customized to meet local needs. They have a customized 856 linking field, which can be used to point the patron to the particular title on the aggregator platform. Generally, the library is free to also specify customizations that are consistent with its own local practices for cataloging e-books. The customizations can be the same, or different, across records supplied for discovery and point-of-purchase records supplied at time of invoice. Additionally, if the library uses a proxy server to access an e-book aggregator database, the discovery record provider can prepend the proxy URL to the aggregator URL in the 856 field. The library should also consider whether to add a code or data string to the record, and a field/subfield to hold it, to distinguish DDA titles from other records in its catalog. This way, the library will be able to identify and, when necessary, remove discovery records for DDA titles from the catalog. Libraries may wish to add information about when a record was added to the consideration pool to aid with assessment and bulk removal processes. Adding other indicators for internal needs, such as a fund code, can also be helpful for assessment. Finally, libraries should also consider adding the aggregator e-book identifier so that they are able to match records when they receive delete files or point of purchase record files.

Many libraries also chose to enrich their MARC records with tables of contents, descriptive summaries, and/or author biographical information received from a third-party data vendor. This enhancement supports deeper keyword access to content for a more focused and complete understanding of the material during the discovery phase and ultimately may mean increased circulation of each title after purchase if enhancements are added to point-of-purchase records. Since enriched metadata provides more points of discoverability, it is in everybody's best interest to provide as many metadata elements as possible.

6.1.2 Discoverability

Discoverability is critical to the success of a DDA program. Libraries that maximize the visibility of their consideration pool through deeper metadata provision and broader access to records are likely to see greater usage. There is a wide range of tools available for providing access to content. Because not all libraries have or use these tools in the same way, the decisions about how or whether to use them for DDA will vary from library to library.

6.1.2.1 Library Catalog/OPAC

For many libraries, research begins in the catalog (and for many, it is the only point of access for monographs). For libraries with a discovery tool or that participate in a consortial catalog, the library catalog also serves as a mechanism for delivering holdings information to other discovery resources.

Discovery records should be loaded to a library's OPAC on a regular basis, generally weekly, so that the consideration pool is constantly refreshed with new titles. Libraries can use a supplier's update file of new titles mixed with revisions and deletions, or can separate the process, using an add file of new titles and a delete file to remove titles. This is generally done on a regular schedule, but libraries can choose to pick up these files at any time.

6.1.2.2 Discovery Tool

Discovery tools are intended to serve as a single point of access to almost all library resources. Libraries that have implemented discovery tools generally position them on the library website as the primary search option, implicitly instructing their users to begin a search there. Because of this emphasis on the discovery tool as a primary search option, it makes sense to also load DDA discovery records into it.

6.1.2.3 Shared/Consortial Catalog

Libraries that participate in shared catalogs have the opportunity to increase discovery by also feeding discovery records into the consortial environment. However, many libraries choose not to make discovery records available in the shared catalog as a means of limiting risk. For libraries that want to prevent walk-in users from accessing un-owned content to decrease the risk of triggering purchases by those unaffiliated with the library, this is a reasonable solution. Other libraries, particularly those whose primary users' preferred method of access is the consortial catalog, will want to load discovery records into this shared space.

Libraries may choose to treat discovery records for a local DDA program differently than those for a consortial program, where access to all within the consortium is important.

6.1.2.4 Other Access Points

Libraries that use link resolvers to provide access to e-book collections will need to determine whether to include the consideration pool or only purchased titles in their knowledge base. While it is more work to update the consideration pool every time titles are added, it will provide broader access, potentially leading to increased discovery and usage. Libraries may also wish to link title-level records to platform-level records in the electronic resource management system (ERMS).

6.2 Point-of-Purchase Records

6.2.1 Overview

DDA point-of-purchase MARC records are delivered at the time a purchased title is invoiced. Since the library will not have previously created ILS order records for triggered DDA purchases, these records can contain acquisitions information that generates ILS order records and supports electronic invoicing. The data requirements will vary from system to system and should again take local practices into consideration. Point-of-purchase cataloging records are only supplied for DDA titles that have triggered a purchase. At the time this report was written, short-term loan transactions are not handled in this way, as will be discussed in section 6.3 below. Therefore, when loaded to overlay related discovery records, point-of-purchase records also offer a solution for purging the catalog of discovery records for purchased titles. Libraries that use a code to distinguish discovery records from other records in the catalog may wish to use a different code to distinguish point-of-purchase records.

6.2.2   Library Catalog/OPAC

DDA point-of-purchase MARC records should be loaded to a library's OPAC soon after the title is purchased and the library receives the record. These records will need a match point so that they can overlay the corresponding discovery record.

6.2.3   Discovery Tool

Once they receive a point-of-purchase record, libraries that use discovery tools should follow normal procedures for adding records for owned digital content purchased through non-DDA channels.

6.2.4   Shared/Consortial Catalog

Once they receive a point-of-purchase record, libraries that participate in shared/consortial catalogs should follow normal procedures for contributing records for owned digital content purchased through non-DDA channels.

6.3   Tracking Spending in the ILS

6.3.1   Overview

Libraries struggle with managing the workflow for tracking STL spending. Some feel it would be ideal to have an automated way to ingest STL invoices into the acquisitions module of the ILS, which would in turn automate the creation of STL order records. In order for this to occur, and similar to the process described in 6.2.1, the vendor from which the library receives MARC records must be able to provide an STL MARC record containing acquisitions information that generates ILS order records and supports electronic invoicing. In addition to DDA purchasing, this is a process that many libraries have implemented to help automate print monograph ordering tasks, and theoretically it could be applied to the STL and invoicing process for DDA programs as well. However, this MARC-record-with-invoice-data process for STLs doesn't currently exist in the market and may require development.

6.3.2   Order Records for Short Term Loans

The process by which MARC records could be used to automate STL invoice management has the potential to be fraught with complications. The STL MARC record with embedded invoice data would have to be overlaid onto the discovery MARC record that the library loaded at the outset. This process of overlaying the existing discovery record would have to be repeated every time an STL occurs; the number of times this overlay process has to occur is directly proportionate to the number of STLs in place for the library's DDA program. Of course, not every title in a library's DDA pool will have even one STL triggered, and a relatively small proportion of the overall pool will have the complete set of STLs triggered before a purchase, so this factor should be taken into consideration when determining whether the overlay process would work for a library.

The process of bringing MARC records into an ILS is not without staff time and effort, and this workload should be a factor in any time-savings calculation. Additionally, repeatedly overlaying a MARC record can introduce errors, so a library that implements this process needs to be aware of the potential for added work. If a library has made local edits to the discovery MARC record, the fields will have to be protected from being overlaid each time an STL MARC record is brought into the system. Close monitoring of the overlay process would be necessary to ensure that the protected fields are actually being preserved. If field protection is not possible, then the local edits would need to be made with every STL MARC record overlay instance, thereby adding additional staff time and workload back into the process and potentially diminishing any time savings that a library hoped to achieve through the automation process.

An alternative to the overlay process is the manual creation of STL order records at the time the library receives an STL invoice. This process can also involve varying amounts of staff time and effort depending on the number of STLs in place for a library's DDA program. However, the workload of

manually creating STL order records can be somewhat mitigated by creating record templates, if the ILS supports that practice. Using record templates can decrease the amount of time a staff member must spend to create a single order record; often, the template can include all routine data with the STL price being the only customized data requiring manual entry.

Libraries need to be mindful of local practices when deciding the type of STL tracking and payment process to implement. No one solution will work best for all libraries or even for most libraries. The ILS capabilities, staff levels, and local policies and procedures all have to be accounted for in determining how to track STL spending. There is no one solution to tracking and applying STL payments that would totally remove the staff time and workload burden from libraries.

6.3.3 Order Records for Auto Purchases

The process of using the point-of-purchase MARC record to track purchases is easier than the process for tracking STLs. Libraries could do a manual process, as described in section 6.3.2, or could follow an automated process in which the DDA vendor's system sends the library a MARC record with embedded invoice data (assuming the DDA vendor has that capability), and the library's ILS uses those data to create an attached order record. This process, which many libraries have implemented to help automate print monograph ordering tasks, can work at the point when the library receives the point-of-purchase record.

Section 7: Removing Materials from the Consideration Pool

7.1 Reasons for Removing Materials

At some point, libraries will need to remove titles from the consideration pool. This can be due to collection development choices, to the financial risk of having too many titles exposed relative to budget availability, or because a publisher has opted to pull a title from an aggregator or stop offering it via DDA. In addition, libraries might remove books that no longer match the criteria used to include them, for instance, removing a book published six years ago from a plan that covers the most recent five years of publications.

Libraries may choose to remove titles for the same reasons that they weed titles from print collections (subject appropriateness, currency, availability of a newer edition, duplication with print or other e-books), but there are also factors that are unique to DDA that can drive deaccession choices. Unlike traditional collection building, DDA relies on adding access to titles before purchase, so price can factor into weeding decisions in multiple ways. Libraries may choose to remove a title from the consideration pool if the list price increases beyond a certain threshold, or may choose to remove titles above a certain price point because of financial difficulties. As programs expand, it will be important for vendors to notify libraries regularly of price increases above a predetermined threshold to allow for easier removal of titles. Further, libraries may need to decrease the overall size of the consideration pool if it grows large enough that the budget cannot keep up with potential demand. In extreme cases, libraries may need to shut down a program temporarily to weather a financial crisis or if a budget is spent before the close of a fiscal year.

If a library needs to shrink the consideration pool temporarily or for the long term, it is important to consider user expectations. In many cases, library patrons are unaware that the e-book they are accessing is part of a DDA program, so removing a title that they may have accessed before may be confusing and frustrating. Because of this, it makes sense to try to maintain access to all titles that have seen any sort of use (whether a free browse or an STL), thus leaving titles that at least one patron may expect to return to again. If necessary to remove more titles from the pool, then looking at recent use only may suffice.

Publishers may pull titles from DDA consideration or from aggregator platforms for a number of reasons, as well, such as the title no longer being available (out of print), changes to their author agreements, potential for widespread course adoption, adjustment to business models, or divestiture to another publisher. It is possible, too, that publishers might remove a title from some aspects of DDA (limiting or eliminating STL options, for instance), while still maintaining its availability for other aspects of DDA (fewer STLs or only purchases, for instance).

Libraries might consider keeping a list of titles removed from the discovery pool in order to inform any assessment of the DDA program at a later date.

7.2 Profiling (Subject and Non-Subject Parameters)

If a weeding project reveals that undesirable titles are being added to the pool, the library should consider adjusting the profile upon which the discovery pool is based. For instance, a specific subject area may include titles that do not fit a library's needs, so the library could adjust the profile to not include titles in that subject area, or to only include titles over or under a certain price, or to include or exclude titles in that subject from a specific publisher. Other profiling factors to consider can include, but are not limited to, specific LC, Dewey, or MESH subject headings; publisher type (trade, university press, association, etc.); fund codes (if the library employs fund codes); and publication type (popular, academic, textbook,

etc.). A library's profile can be as broad or specific as the library's needs dictate. When employing a profile to help drive a DDA program, it is important to plan for a profile review after the DDA program is underway and enough data are available with which the library can assess the profile's effectiveness in populating the DDA consideration pool.

Though not available yet, approval vendors, aggregators, and any others that offer profiling should consider building mechanisms to allow automatic removal of titles from a consideration pool based on established criteria similar to those used to add titles. As DDA programs mature, libraries will have greater need to remove titles from consideration, and being able to automate that process will benefit everyone.

7.3 Frequency

The frequency with which a library will remove records from the DDA consideration pool can be dependent on the reason for the removal, as well as the internal processes involved. Many aggregators have a regular schedule for sending updates to DDA records, including delete files. This schedule can be monthly, quarterly, even bi-annually. The library will want to keep up with the pace of these removals, because they are due to the publisher no longer offering the title through a DDA model or via the aggregator platform. Aggregators should supply removal notices as delete files to allow for automated processing by libraries. It is in the library's best interest to perform its DDA removal processes as quickly as possible, so as not to present to users titles that are not actually available for use.

If the reason for removal is a library's weeding project, then the project timeline will dictate the frequency of weeding. The library will want to consider the workload involved in undertaking a weeding project in determining the frequency. Once a weeding project is underway, it is important to keep to a tight time line for actually removing the titles from any sources of discovery—the local, consortial, and membership OPACs, the e-book platform provider, a discovery tool, a link resolver, an ERMS—so as to avoid any further fee-based triggers on the titles chosen for removal. In other words, a library wants to avoid having to pay short-term loan or purchase invoices on titles chosen for removal.

7.4 Discovery Records

The removal of titles from the discovery pool requires a library to remove discovery records from their myriad systems. This section will outline the methods that can be used to perform the work of removing such records.

7.4.1 Local Catalog/OPAC

A library has options for receiving discovery MARC records to be included in its OPAC, as discussed in Section 6:. If the aggregator or publisher has determined that titles need to be removed from the discovery pool, the library should work with the aggregator or supplier that provides the discovery MARC records to also supply delete records that match on a common field. For instance, if the library receives discovery records from an aggregator and the records contain a MARC field with a unique identifier for each record, the delete records should come from the same aggregator and should contain the same unique identifier (generally the aggregator ID specific to that title) to allow the library to match records on a stable number.

Once a file of delete records is received, or the library determines a list of titles to weed from the discovery pool, the library must remove each of the titles from the OPAC. Whether this can be done in an automated way or must be done manually (title by title) is dependent on the library's ILS, internal processes, and staffing. The exact method for deleting the records will require workflow discussions among staff responsible for maintaining the ILS records, with an eye to batching as much of the process as possible.

7.4.2 Discovery Tool

If the library has loaded discovery records into a discovery tool, they should be removed from the discovery tool when they are removed from the OPAC.

7.4.3 Shared/Consortial Catalog

If the library loads discovery records into a shared or consortial catalog, they should be removed from that catalog when they are removed from the local OPAC.

7.4.4 Other

A library may be activating, loading, or "turning on" discovery records in other systems as well, such as an ERMS or a link resolver. Records should be removed from all systems at the same time—as part of the same workflow—to ensure clean data across the systems a library uses.

It is worth noting that if the decision to remove a title from the consideration pool originated with the library, the library must also communicate this decision to the e-book platform provider and/or the supplier, aggregator, or publisher responsible for managing access to titles in its DDA program. The library must ensure that titles are removed from all points of discovery, including the e-book platform, so as to avoid any inadvertent use that could result in a financial transaction.

Section 8: Assessment

8.1 Need for Assessment

Assessment should be an integral part of any DDA program and should be considered early in the planning process. Having the required data elements defined and present in the technical specifications at the start will make assessment much easier in the long run. The goals of the overall DDA program should be the foundation upon which an assessment plan should be built. As articulated in Section 3:, DDA can be used to provide access to a much larger collection than is possible under a traditional model; it can be used to save money; it can provide access to a larger collection while still saving money over a traditional purchase model; and it can be used to build a permanent collection. A DDA program that is designed primarily to save money will have different metrics for assessment than a program that is designed to expand access. Assessment that helps provide tight control of the consideration pool and its relationship to expenditures would support a money-saving program while a program that focused on expansion of access might assess how the growth of the consideration pool supported broader use. Overall there are two major aspects of any DDA program that require assessment: the overall effectiveness of the DDA program (based on program goals) and predicting expenditures. In assessing a DDA program, it is important to look both at the use that leads to financial transactions and at post-purchase usage.

8.2 Data Sources

Usage data are normally available from a supplier's website, often including COUNTER book reports and specialized vendor/supplier reports. COUNTER reports are useful for measuring all instances of use, regardless of type, and for comparing those uses across multiple platforms. Vendor/supplier reports often have data specific to DDA and generally include a range of different usage types.

8.2.1 COUNTER

COUNTER is a standard that defines data elements for e-book usage, and can therefore be used to compare usage across COUNTER-compliant e-book providers. Because of this, libraries that wish to compare usage of e-books across multiple DDA programs from multiple aggregators and publisher platforms, or even to compare usage of a DDA program with other e-book content, will want to use COUNTER reports. Though useful because of this cross-supplier standardization, COUNTER reports lack pricing data, usage data specific to DDA, and some additional elements that can only be garnered from vendor/supplier reports. In order to do comprehensive analysis of a DDA program, then, libraries will need to use a combination of supplier-generated COUNTER reports and separately produced vendor/supplier reports.

8.2.2 Vendor/Supplier Reports

Supplier platforms (whether aggregator or publisher) often have additional reporting capabilities beyond what is provided in COUNTER reports. For instance, they often include pricing data for short-term loans and purchases, which can be used to analyze cost-per-use on their own or can be merged into COUNTER reports. In addition, vendor/supplier reports sometimes include DDA-specific information, such as the number of STLs for a title, the number of purchases, the number (and even length) of free browses, and the number of post-purchase uses, all of which can be quite valuable for assessing the success of a DDA program. Finally, vendor/supplier reports can sometimes include additional usage data beyond those included in COUNTER reports, such as the length of time in a book, pages viewed, pages copied, pages printed, and downloads. Unfortunately this sort of data is not standardized across platforms, so cross-supplier comparison is difficult.

8.2.3   Circulation Data

For print DDA, libraries will need to analyze circulation data, so it is important to have an understanding of how to run review files within the integrated library system (ILS) in order to get the right data. Because many ILS systems cumulate circulation data (making it impossible, for instance, to run a report on circulation within a full calendar year five years ago), it is useful to save reports on circulation of DDA-purchased titles on a regular basis, perhaps annually, to allow comparison of circulation over time.

8.2.4   Payment Data

In some cases, payment data for DDA programs might not be available via a supplier's site. In these cases, libraries will need to pull data from the acquisitions module of their ILS or develop other means of tracking the data that will allow easy integration with COUNTER and vendor/supplier reports.

8.3   Evaluating the Overall Effectiveness of a DDA Program.

There are various types of metrics that can be used to evaluate a DDA program. Not all of these metrics will apply to all types of programs; libraries should choose these based on programmatic goals.

8.3.1   Cost Reduction

If the goal of the program is to reduce costs, then it is important to consider overall expenditures, cost-per-use, and cost relative to the program that DDA replaced and/or enhanced. Reduced costs can involve several data points Most basic would be a comparison of the overall book expenditures for the DDA program to the overall book expenditures for the program that DDA replaced or enhanced. Tracking expenditures is fairly simple if DDA program expenditures are charged to a unique account and local bibliographic/order records for purchased items are tagged as DDA purchases. Similar data would also need to be available for the comparison group.

Other cost metrics that may be valuable to gather and assess include:

- Cost per title purchased

- Cost compared to number of titles exposed

- Cost per use for both purchased items and the consideration pool.

As mentioned earlier, all records for a DDA program that are added to a catalog should contain some kind of DDA identifier. This is important not only for record management but also for the gathering of assessment data.

The overall level of expenditure may not provide the complete picture of program success. For example, a program in which costs were reduced, but fewer titles were actually used may not be effective. Cost per title purchased might provide a better indicator of return on investment for the most heavily used titles, but, given the volume of pre-purchase use (multiple STLs plus the cost of purchase), it will likely be higher than for low-use titles with just a single STL. Combining overall use data with overall purchase data may then be the most effective means of measuring success in terms of cost reduction.

In DDA programs, there are multiple types of use, so measuring cost-per-use can be tricky. Though it is often easiest to measure use that triggers a transaction relative to the costs associated with those transactions, libraries should consider the value of other types of use including free discovery and post-purchase use.

One important caution when assessing a DDA program using cost-per-use data is that single (or even multi-) year cost-per-use values based on purchase costs are short sighted. The return on investment for purchased books may often not be realized until after many years of post-purchase use.

There are many ways to measure cost reduction. The metrics selected to support the assessment process should be determined by the goals of the DDA program. Metrics should be defined and implemented early in the program in order to be successful in gathering useful data.

8.3.2 Use, Increased Use of Items Purchased, Continued Use of Purchased Content

Use of purchased items is an important component of assessment. Most COUNTER and vendor/supplier use reports are based on a calendar year so longitudinal views of use are not difficult to produce. If a DDA program is with a supplier that also handles other types of transactions—firm orders for example—some mechanism needs to be used to identify the various types of transactions that might be contained in the use data. Use of items purchased through the DDA program, use of items in the consideration pool, and use of other purchased e-books will need to be differentiated. As mentioned above, although COUNTER reports allow easy comparison across suppliers, they do not measure all of the sorts of use necessary to consider when assessing a DDA program. In some instances other reports from the supplier's site may hold valuable information as well. These reports might show the number of unique uses of an e-book, time spent in an e-book, and number of pages viewed, as well as statistics on downloads, printing, and copying.

Metrics should be defined and implemented early in the program in order to be successful in gathering useful data. Though it is often easier either to measure just the usage that leads to purchase, or to measure all usage regardless of type, in order to assess usage in a nuanced way, assessment programs should measure the interplay of the various aspects of use. Developing sound metrics for assessing both pre- and post-purchase use is critical for an assessment program.

8.4 Assessment Program to Support Predicting Expenditures

8.4.1 Factors Affecting Expenditures

The ability to manage expenditures generated in DDA programs is a concern for many libraries. Anecdotes about funds being exhausted in the blink of an eye abound, while other libraries report under spending funds on DDA. Both situations point out the need to be able to use data from the DDA program to predict future expenditures. There are two major factors that drive spending. The first is the trigger event. Auto-purchase plans, which do not support significant use of a title before a purchase is triggered, will spend funds faster than other plans. Short-term loan (STL) plans are viewed as a means to manage expenditures by supporting some use of the book prior to a full purchase. The second major factor that drives expenditures is the size of the consideration pool. Larger pools lead to greater expenditure, but not necessarily in a linear fashion, and other variables such as the number of other non-DDA books and e-books in the catalog and the size and research demand of the user populations certainly play a role.

8.4.2 Assessment Programs for Managing Trigger Event to Purchase Cycle

Metrics for assessing the DDA lifecycle, from trigger event to purchase, are determined by the type of program implemented. An auto-purchase program based on x uses before purchase will measure different items than a program that is based on mediated purchasing consideration that occurs after x number of short-term loans (STLs). For instance, a program that automatically triggers a purchase of a book after three uses will need to monitor carefully the use of items in the consideration pool, since a large number of titles showing two uses will translate to purchases before long. If purchase occurs after three STLs then identifying titles that have reached that threshold is a good predictor of purchase volume in the short term. Auto-purchase programs where a purchase is triggered by a single event, like downloading or printing, are much harder to assess since there are no precursors to purchase. A best practice would be to determine the percentage of purchases that are triggered by single events and then use that figure to plan for future expenditures. Over time, libraries and suppliers should be able to develop stronger abilities to predict future usage and spending based on past performance.

8.4.3   Assessment Programs for Managing the Consideration Pool.

Metrics that can be used to manage the consideration pool are probably the most varied set of data for DDA programs. Metrics can be as simple as the percentage of titles in the consideration pool compared to titles purchased, or the data can be as complex as the ratio of purchased titles with use to the consideration pool by subject, publisher, or year of publication. More granular data on subject, publisher, and/or year of publication can also be useful for estimating the likelihood that categories of book records in the consideration pool will result in purchases, although because the content in these fields is not always standardized, these data can be harder to work with.

The overall goal of the program should drive what is assessed. The baseline should be the process used to determine what records are included in the consideration pool. If the program is based on a set of publishers, then that should be the starting point for assessment. If a profile is used to select records for the pool, then that should be the starting point. If the program is designed to expand access, it may be that there is little management or assessment of the consideration pool (since bigger is better), but at some point most DDA programs will need to review the pool and modify it, so it is important to build systems that allow assessment of the pool from the beginning.

Metrics that outline the characteristics of items purchased will be valuable in assessing the pool. If there are clusters of purchased titles by subject, publisher, or year of publication, these suggest potential areas of expansion of the consideration pool. However, if purchases in a particular cluster don't show continued use, these should not be considered as strengths. Conversely, if there are large areas in the pool that do not show significant use and purchases, these are areas that can stand to have exposure decreased. Modifications should be made in the base profile as well as the current consideration pool.

The metrics that can be used to manage consideration pools can be complex. Purchasing patterns and use patterns combine to provide frameworks that can then be filtered by other elements like subject, publisher, and date of publication. Local needs should drive the assessment program, since even a program planned ahead of time will require significant staff time for assessment.

8.5   Metrics For Evaluating Consortial DDA Programs

All of the items mentioned in sections 8.1 through 8.4 would apply to evaluating DDA programs in consortia, but there are also other important assessment metrics that are unique to consortia. Since purchasing and ownership is shared across a group, these metrics help with justifying business models and cost sharing plans so that the value of the DDA program to each institution (i.e., its cost/benefit ratio) is perceived to be as fair as possible. Use is central and needs to be measured across the consortium and should be tracked at the individual institutional level as well. These should include:

- The percentage of use or instances of trigger events leading to purchase per institution across the consortium

- The number and identity of institutions contributing to pre-purchase usage

- The number and identity of institutions involved in post-purchase usage

These data should be measured at the program level, but also at the title level so that the consortium can determine the percentage of titles with all or most use falling at a single institution or a small set of institutions. This sort of measure, especially combined with data such as subject and publisher, can determine whether particular types of material might make more sense in consortial or individual DDA programs.

As with single institution programs, it is very important to track how use across institutions plays out over time.

Section 9: Concerns About Providing Long-Term Access to Un-Owned Content

DDA programs are predicated on making large amounts of content available to library users and then paying only at the point of use. In this regard, DDA represents a fundamental shift in how libraries manage collections. Instead of buying a book and preserving it for the long term (in effect serving as a steward of the cultural record), libraries now add a record to the catalog and do not buy that book until the point of use. What happens if that book never gets used in DDA programs? What happens if that use is so far in the future that the book is no longer available? Will an aggregator or publisher still be able to supply that book when needed? Who becomes the cultural steward in this scenario? As we move toward DDA on a larger scale, we need to take steps to safeguard the cultural record.

9.1 Un-Owned E-Book Content

If no library purchases an e-book, or so few libraries purchase that book that the publisher or aggregator deems it unlikely to ever have significant use, is there an economic incentive to quit hosting that book? Though the answer is hopefully "no," it is conceivable that enough cost could be saved by not hosting hundreds or more e-books that they could be declared out-of-print. Rather than get to the point of discovering whether this might happen, we need to develop mechanisms that ensure that e-books will be available sometime in the future when someone does need to use them.

Services such as Portico and LOCKSS provide access to e-books to all subscribers of their service in cases where a publisher drops a particular title or goes out of business and that title is no longer available from any other source. This sort of model would work well to ensure that titles are still available in cases in which they are not purchased via DDA and cease to be available. At this writing, 60 publishers have committed to preserve their e-books in Portico.[3] Broader participation would make DDA more sustainable as a long-term collection-building model.

9.2 Un-Owned P-Book Content

While it is easier to acquire print copies of books on the used market than ever before, that is no guarantee that books will be available at the point of need. Publishers have traditionally made decisions to declare books out-of-print (or out-of-stock-indefinitely) when a print run is exhausted and there is no expectation of significant further sales. When sales have been significantly below expectations, publishers have often sold off remaining copies of a print run as "remainders" before declaring a book out-of-print. With the rise of large-scale POD services that can print a single copy of a title, no book should have to go out-of-print due to the costs of warehousing volumes. Broader participation in these services would make DDA more sustainable for print titles.

---

[3] Who Participates in Portico: Publishers [webpage]. Available at: http://www.portico.org/digital-preservation/who-participates-in-portico/participating-publishers

Section 10: Consortial Considerations for DDA

10.1 Unique Issues for Consortia

Consortia have been built on the foundation of coordinated collection development and resource sharing. E-books present a challenge to these goals because titles purchased by individual libraries can often not be shared or loaned. Many consortia see DDA as a way to present much more content to their members while meeting the goals of shared ownership and/or greater access. While there were a few early efforts by consortia to implement DDA programs, for example the Colorado Alliance project with NetLibrary in1999, the Orbis Cascade Alliance was the first consortium to pioneer a program using current practices in 2011. Since that time, many consortia have started their own pilots, using a variety of methods, including the multiplier, the limited use, and buying club type models.

There are unique challenges presented by consortial DDA projects from a planning and implementation perspective, including deciding which model is best for that consortium's goals and objectives; getting publishers to participate; getting many libraries to agree on common goals, objectives, and parameters of the program; establishing funding models; and managing records across many libraries, who may or may not have the same ILS and/or a shared catalog. In addition, in consortia where individual libraries have local DDA programs or other e-book content, participating libraries will need to consider how best to manage duplication. All of the other considerations that apply to individual DDA programs should also apply to consortial programs.

10.2 The Multiplier Model

The most common DDA method employed by consortia is the Multiplier Model, in which consortia can combine both STLs and auto-purchases. The consortium and the publisher agree up front that the consortium will pay x times the list price of the e-book when the title is purchased by the group. Generally, this negotiation takes place on behalf of the consortium between the e-book aggregator and the publisher. In many instances, this negotiation is based on the number of libraries participating and also on past print purchase and duplication data, generally supplied by the approval vendor. Some of the challenges of this model have been the number of publishers willing to participate in these projects, the willingness on the part of the consortium to accept varying multipliers in order to increase the amount of content that its members have access to, and the time that all of these negotiations take.

10.3 The Limited Use Model

The Limited Use model, piloted by Novanet in Canada, allows a consortium to make far more content available to its libraries than under the multiplier model, and lets the consortium purchase a title at the list price of the e-book, but once a title is purchased, there are restrictions on the number of additional loans allowed per year before a second copy is auto-purchased.

10.4 The Buying Club Model

There are numerous variations on the buying club model. In this model, all of the members of the consortium are allowed to view the same consideration pool and any patron at any participating institution can trigger an un-owned title. Under the most common version of this model, the purchase of an un-owned title is paid for by the patron's individual institution and is available only for local use, not shared use by the consortium. This version does not require publisher approval. A variation of this model involves a sliding discount, with the first library paying full price for the e-book and subsequent uses by

other libraries generating discounted purchases. This version does require publisher approval. Neither of these is widely adopted, primarily because the only consortial benefit is shared management of the consideration pool, with no shared ownership of content, often an important driver for consortium action in the DDA area.

10.5 Managing Duplication with Local Collections

In many consortia, libraries will have their own local e-book collections. Depending on the nature of these collections it may or may not be possible to control duplication. In general, because it can be difficult to agree on parameters for the consortial program and to negotiate rights for shared access, the consortial DDA program should take priority over local programs. Libraries will then need to block new content from coming in on local e-book plans, though this is easier in some instances (publisher-based plans, for example) than others (subject-based plans). If using the same aggregator(s) and/or approval vendor, this process can be easier. When libraries have already added e-book content to a collection, then it will be difficult to prevent duplication with retrospective content added to consortial programs. In these instances, libraries may wish to block local access to these duplicated consortial titles so that local use does not drive a consortial purchase, but this requires significant staff time to manage.

Section 11: Public Library DDA

Public library suppliers have different methods for managing demand driven acquisition. Some allow patrons to see their entire collection via the supplier platform, but not via the library catalog. Patrons can then add titles (or additional copies) to their library's "wish list." Some libraries also have a materials request process for all formats. The majority of public libraries studied evaluate patron requests weekly with a smaller subset managing this process monthly or quarterly. The librarian evaluates requests based on the library's collection development policy and purchases the item if it fits the guidelines. In most cases public libraries do not add MARC records to the catalog for items they do not yet own.

Section 12: Recommendations

There are many ways in which a DDA program can work, and models that are ideal for one library or publisher may not work for others. These recommendations try to account for different goals for DDA, different financial realities, and the needs of all stakeholders, while recognizing the need for mutual concessions. On a very broad level, then, flexibility is crucial. The recommendations in Section 12 are informed by Sections 1-11, which generally provide more detail about the rationale for each recommendation.

12.1 Establishing Goals

DDA programs can be set up to accomplish different goals, so it is crucial to determine programmatic goals as the first step in planning. DDA can be a replacement for traditional collection development practices or a supplement to those practices. In reality, a library may be trying to do several things at once, which may include:

- **Saving money** – This goal can be accomplished in three ways:

  - Providing access to fewer books

  - Emphasizing temporary access (STLs) over perpetual access (purchasing), generally with a higher number of STLs prior to purchase

  - In evidence-based programs, having a higher usage threshold prior to purchase

- **Spending the same amount of money more wisely** – Programs can be set up to use the same amount of money as had been budgeted for the program being replaced by DDA. This goal can be reached in either of two ways:

  - Providing access to a large pool of titles with an emphasis on temporary access, which would allow spending the same amount of money on access to far more titles

  - Providing access to a smaller pool of titles with an emphasis on perpetual access, set up so that the combination of STL and auto-purchase costs equals the amount spent under the previous program

- **Providing broader access** – Depending on the budget goals, this can be accomplished by:

  - Having the most expansive profile possible (defined by date of publication and/or subject matter), which will increase the size of the consideration pool

  - Emphasizing temporary access (STLs) over perpetual access (purchasing), generally with a higher number of STLs prior to purchase

  - In evidence-based programs, having a higher usage threshold prior to purchase

- **Building a permanent collection via patron input** – If the goal is to provide perpetual access to patron-selected materials, with the assumption that users can provide valuable guidance in this process, then purchases should happen with fewer uses (which is generally more expensive). This goal can be accomplished by:

  - Having a more tightly-focused profile, which will decrease the size of the consideration pool

- Emphasizing perpetual access (purchasing) over temporary access (STLs), generally with few or no STLs prior to purchase

- In evidence-based programs, having a lower usage threshold prior to purchase

12.2 Choosing Content to Make Available

Libraries should consider the following issues when choosing the content to include in a consideration pool:

- Not all p-books are available as e-books.

- No single supplier provides all e-books.

- Not all e-books are available via DDA or under the same models.

Therefore:

- More comprehensive coverage will require working with multiple suppliers and multiple models, which can complicate workflow.

- For the broadest coverage possible, it will be necessary to include print.

- Approval vendors can help manage DDA with multiple suppliers.

When choosing which content to make available via DDA, publishers should consider that:

- Most libraries will want to limit the number of suppliers and models they use in order to more easily manage workflow, so availability on multiple platforms via multiple models will maximize access to content.

12.3 Choosing DDA models

There are multiple types of DDA models available. In some cases, a library may decide that the range and type of content to make available is more important than the models available from a particular supplier, while in other cases, a library may want to work with a particular model that then dictates which content can be included. For example, a library that wants to work only with suppliers that include STLs will be limited to the aggregators that work with this model, while a library that prioritizes access to the widest range of content will end up working with multiple DDA models.

There are three basic models, and variations within each model. Some of these models, such as an STL leading to an auto-purchase, can be combined. In choosing which model(s) to use, libraries should consider the issues outlined in section 12.1.

- Auto-purchase model

  - A purchase is triggered on the first use longer than the free browse period, or

  - A purchase is triggered after a set number of uses, typically 1-3, or

  - A purchase is triggered after a set number of STLs, which can be determined by the library based on parameters agreed upon between the aggregator and publisher.

- Short-term loan model

  - STLs are triggered for usage after the free browse period, with the number of STLs before an auto-purchase determined by the library based on the goals of the program, as defined in section 12.1, and limited by the parameters agreed upon between the aggregator and the publisher; or

- STLs are triggered for all usage after the free browse period, with no auto-purchase ever occurring.

- Evidence-based acquisition

  - Based on an analysis of usage throughout the period of the program, a library purchases perpetual access to some of the titles made available, typically spending a pre-negotiated amount across the program.

Publishers may wish to participate in some or all of the above models. There is some concern by publishers about the sustainability of short-term loans, so publishers may wish to cap the number of STLs allowable for their content or limit the type of content available for STLs, for example, only allowing STLs (or allowing more STLs) for back list content.

12.4 Profiling

When profiling for DDA, it is important to remember that there must be a critical mass of content available for patrons to discover. Therefore, profiles should be as broad as possible relative to the budget of the program. The goal of profiling for DDA should be to make available as much content as possible that meets the broad curricular and research needs of the institution. Therefore, unlike a traditional profile that attempts to narrow the universe of scholarly academic publishing, a DDA profile should be expansive. For example, instead of eliminating scholarly monographs that fit into areas peripherally related to core teaching areas, a DDA program would seek to include those and see if there is usage.

DDA profiles should be based on the broadest definitions possible within the following areas, and relative to the goals outlined in section 12.1:

- Subject coverage should provide access to a wide range of content, even in subjects that may not be core.

- Retrospective coverage should help provide a critical mass of content:

  - especially in programs that are otherwise limiting (such as DDA programs that focus on a core set of publishers); and

  - where it may or may not overlap with existing print and e-book holdings, depending on a library's preference.

12.5 Loading Records

DDA is predicated on discovery of content, so it is crucial to have the widest range of discovery options possible. When loading records for discovery, libraries should:

- Load records regularly, and as soon after receipt as possible.

- Load records into as many discovery tools as is feasible.

- Code records for easy suppression or removal.

- Enrich metadata to increase discoverability.

Once a title has been purchased, a library should load a point-of-purchase record to facilitate acquisitions workflow and payment.

12.6 Removing Content

In some cases, titles will no longer be available from a supplier or will no longer be available via a particular DDA model and should be removed from the consideration pool. When managing this process, libraries should:

- Remove records from all discovery tools as soon as is feasible, often by using a supplier's delete file.

- Establish a regular cycle for removal of records from the pool.

- Maintain a record of titles removed to be used for assessment purposes.

Though not available yet, approval vendors, aggregators, and any others that offer profiling should consider building mechanisms to allow automatic removal of titles from a consideration pool based on established criteria similar to those used to add titles. As DDA programs mature, libraries will have greater need to remove titles from consideration, and being able to automate that process will benefit everyone.

12.7 Assessment

Libraries should plan for assessment from the beginning to ensure that they track and collect the right data. Assessment programs should be built to measure the goals of the program as outlined in section 12.1. Broadly speaking, a library might wish to assess the following:

- **Overall effectiveness** – Based on the goals of the program, effectiveness could be measured by a combination of cost reduction, increased access, increased ownership, or increased usage, all of which will be measured in different ways.

- **Cost reduction** – Reduction in cost can be calculated by comparing the overall cost of the DDA program to the overall cost of the program it replaced and/or by comparing the cost-per-use of the DDA program (including any free uses) with the cost-per-use of the program it replaced. Cost-per-use may not be a realistic measure of value, particularly when comparing an e-book DDA plan with a p-book purchase plan, since e-book and p-book usage measures are not comparable.

- **Usage** – Measuring increased usage from a prior model to usage from a DDA program may be useful to demonstrate value, but libraries should recognize that e-book and p-book usage is measured differently, so you could be comparing apples and oranges. Usage studies should recognize that in DDA there are multiple sorts of use (free browses, usage that triggers a payment, and post-purchase use) and these sorts of use may be worth examining in the aggregate for some assessment programs, but should be differentiated for others.

- **Predicting future spending** – In order to build a DDA program that optimizes the size of the consideration pool relative to the budget, it is valuable to be able to confidently predict future spending based on past usage. Gathering data about triggers, transactions, and other pre-purchase use relative to the size of the consideration pool can help detect patterns such as the average annual spend relative to consideration pool size, the average number of STLs/auto-purchases relative to consideration pool size, and the average length of time before a book will trigger a transaction. More nuanced studies might determine differences by subject or publisher or date of publication.

- **Managing the consideration pool** – Assessment of usage and spending can be used to refine the consideration pool. For example, usage may suggest expanding the range of content in one subject area but contracting in another. And spending patterns might suggest increasing or decreasing the overall size of the pool.

12.8 Preservation

DDA is based upon the assumption that content will be available for usage at the point of need. It is therefore very important that un-owned content be accessible to users far into the future. Libraries and publishers must work together to ensure content is available, perhaps through third-party solutions such as Portico or LOCKSS.

12.9 Consortial DDA

Many consortia have piloted DDA programs, in most cases as a way of providing shared access to the consideration pool and any purchased content. In some cases, consortial DDA programs only share the consideration pool, with purchased content permanently accessible only to the library that triggered that purchase. The three basic consortial models are:

- **The multiplier model** – An aggregator negotiates with publishers on a consortium's behalf to come up with a multiple of the list price that the consortium will pay for shared access to purchased titles. When establishing a multiplier, libraries in the consortium should use recent purchasing and overlap patterns for the publishers being approached as a starting point. Approval vendors can often help get that information.

- **The limited use model** – The consortium pays for shared access to an e-book, but with a pre-negotiated cap on usage before a second copy is purchased.

- **The buying club model** – The consortium shares access to the consideration pool, but the libraries that use content handle purchases; books that are purchased are not shared across the consortium. This model allows for shared management of the pool but does not give the benefits of shared perpetual access.

When establishing consortial DDA programs, the participating libraries will need to develop plans to manage duplication with local DDA and other e-book programs. In some cases, de-duplication will not be possible.

12.10 Public Library DDA

Most public libraries that have undertaken DDA programs have used patron input to add new titles or additional copies to the collection. Public library DDA is generally mediated, and is often not managed through the catalog. In most other regards, public libraries can use these recommendations to inform their implementation and management of DDA programs.

Appendix A:
Survey Results

In August 2013, the DDA Working Group conducted three online surveys. The first was a general survey directed to all interested respondents. The second was directed to consortia and the third to public libraries. 99 responses were received to the general survey; 17 to the consortial; and 14 for the public library survey.

There were 75 questions in the main survey pertaining to access models, current participation in DDA programs, purchase and short-term loan (STL) triggers, simultaneous user models, discovery pool, budgeting/expenditures, metrics and assessment, technical services support, and consortial data. Write-in comments were available for most questions and extensive comments were received.

The consortial survey had 24 questions aimed at DDA participation, challenges, use of STLs, use of multiplier models, funding, ownership of purchased titles, cataloging of purchased titles, discovery, and metrics.

The public library survey had 12 questions focusing on offering of e-books, user access to e-books, use of DDA or "wish lists," budgeting, and advantages/disadvantages of using DDA.

Write-in comments were available for most questions and extensive comments were received, offering a rich set of data for the DDA Working Group to consider in developing this Recommended Practice.

The complete survey results (minus the specific names of respondents and institutions) are available on the NISO website at: www.niso.org/apps/group_public/download.php/12541/DDA_Survey_Results.pdf

Bibliography

Books In Print® [website]. Bowker, a ProQuest affiliate. http://www.bowker.com/en-US/products/servlib_bip.shtml

COUNTER Code of Practice for e-Resources. Release 4. COUNTER (Counting Online Usage of Networked Electronic Resources), April 2012. Available at: http://www.projectcounter.org/code_practice.html

E-BASS25 Project – Examining Models for Consortial PDA: Orbis Cascade Alliance Case Study. E-BASS25, March 13, 2013. Available at: http://ebass25.rhul.ac.uk/files/2013/03/Orbis-Cascade-Case-Study.pdf

Levine-Clark, Michael. *Demand-Driven Acquisition in the Colorado Alliance of Research Libraries*. Presented at the American Library Association Annual Conference, June 30, 2013. Slide presentation available at: http://www.slideshare.net/MichaelLevineClark/alliance-dda-alcts-ala-annual-2013

LOCKSS (Lots of Copies Keep Stuff Safe) [website]. http://www.lockss.org/about/principles/

MARC 21 Format for Bibliographic Data. Washington, DC: Library of Congress, Network Development and MARC Standards Office, 1999 with updates 1-17 (September 2013). Available at: http://www.loc.gov/marc/bibliographic/ecbdhome.html

Portico Services & Benefits: E-Book Preservation Service [webpage]. http://www.portico.org/digital-preservation/services/e-book-preservation-service

Price Jason, and John McDonald. "Beguiled by Bananas: A Retrospective Study of the Usage & Breadth of Patron vs. Librarian Acquired EBook Collections." *Proceedings of the Charleston Library Conference*, 2009. Available at: http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1027&context=charleston

Richard, Jennifer, Bill Slauenwhite, and Denise Parrott. *Made in Nova Scotia: a new model for consortial eBook collections*. Presented at APLA Conference, May 15, 2013. Presentation slides available at: http://apla2013.ca/sites/apla2013.ca/files/slides/APLA%20Ebook%20DDA%20Presentation_final.ppt

"Special Issue: Patron-Driven Acquisitions: Current Successes and Future Directions," *Collection Management,* 2010, 35 (3-4). Available at: http://www.tandfonline.com/toc/wcol20/35/3-4#.U5e4siguKSo

Swords, David, ed. *Patron-Driven Acquisitions: History and Best Practices*. Berlin: DeGruyter Saur, 2011. ISBN 978-3110253016

Ward, Suzanne M. *Guide to Implementing and Managing Patron-Driven Acquisitions*. Chicago: Acquisitions Section of the Association for Library Collections & Technical Services, American Library Association, 2012. ISBN 978-0838986080