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# Evidence-Based Acquisition: A Real Life Account of Managing the Program Within The Orbis Cascade Alliance

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## **ABSTRACT:**

*In 2015 the Orbis Cascade Alliance investigated a consortium wide evidence-based acquisition (EBA) model to incorporate into its established eBook program, and began a pilot of Wiley's Usage Based Collection Management Model. EBA is an acquisition model that grants library patrons access to a title list over an agreed-upon time period for a pre-negotiated amount of money, and titles from that list are then selected for purchase based on the evidence of usage from the initial access period. This article shares the consortium's experiences evaluating usage, managing titles and records, controlling duplication, predicting costs, and the inclusion of MARC records to enhance discoverability.*

## **Who We Are**

The Orbis Cascade Alliance is a library consortium of 39 academic libraries in Idaho, Oregon, and Washington. Its members are very diverse institutions of higher education, including seven community colleges, 17 private four-year colleges, 14 public four-year colleges (large and small), and one health sciences institution. The Orbis Cascade Alliance provides information services to approximately 275,000 students and is funded by membership dues. The consortial acquisitions programs are thus limited by the budgets of the libraries and campuses.

## **Ebook Explorations**

Ebook models at the Orbis Cascade Alliance have evolved over time. The program we devised was intended to build a collection based on use and to supplant the status quo of eBook availability being limited to only a licensee's campus. The goal was and still is to support a core collection across all member Libraries. It is an all-in model; the Orbis Cascade Alliance must do the best with our budget for all its members. The eBooks program has gone through three iterations. A Demand Driven Acquisitions (DDA) model was used from July 2011 to present, with Ebook Library as the book vendor and Yankee Book Peddler as the profiler. In a second phase, a subscription package, Ebrary Academic Complete, was added in September 2014 to present. In the third phase Orbis Cascade Alliance is implementing an Evidence-based Acquisitions (EBA) model, starting in May 2016 to present, with Wiley. Over these years the budget grew initially and then flattened, as shown in table 1.

*Table 1: Orbis Cascade Alliance eBook budget.*

<b>Budget</b>
FY 2012 - \$462K
FY 2013 - \$750K
FY 2015 - \$1M
FY 2016 - \$1M
FY 2017 - \$1M

The Orbis Cascade Alliance met some key challenges in 2015. Short term loans, which are not addressing goals such as building a core collection, were accounting for much of the cost. High access costs were another problem. Due to a number of rapid changes by publishers under the DDA model, the Alliance spent the bulk of the year working to mitigate the risks of high costs and handle a fluctuating title pool. The challenges were caused by both publisher and consortium actions. Publishers increased the cost of short term loans (STLs), implemented front list embargoes (eliminating short term loan access to front list titles), and in some cases ended participation in STL or DDA entirely. At the same time, the Orbis Cascade Alliance had started an eBook package subscription with Ebrary late in 2014, which meant less money for the DDA titles as well. As a result, the consortium executed several removals of unpurchased DDA titles, implemented a three year rolling list of DDA titles then accessible, de-duplicated subscriptions and DDA transactions, turned off purchasing, reduced the price cap for DDA titles, and started looking for a DDA alternative that included a purchase option. Consequently, in 2015 the Orbis Cascade Alliance spent approximately 70% of DDA funds on loans, not purchases.<sup>1</sup> This model was supposed to drive purchases, but instead was funding access. The Ebrary subscription package was intended to be the access model, not the DDA package. Worst of all, title removal led to a loss of community trust in the program's integrity. The situation also required a huge amount of overhead labor to manage the resources and keep within the budget. The consortium's eBook Working Group looked back to the original pilot commenced in 2011, evaluated the project's goals to confirm they were still valid, and drafted a revised version of the goals and objectives for the Orbis Cascade Alliance's EBook Service.

The 2015 revised goals were: to build a broadly useful collection; to diversify the publisher list; to improve cost stability and predictability; to improve percentage of budget devoted to purchase; to reduce barriers to access (in general, via digital rights management (DRM)-free content, ADA compliance, and an easy to use interface); and to minimize impacts of fluctuation in the title pool. The consortium needed something that would address some of the disadvantages of the DDA project.

Evidence-based acquisition (EBA) is an acquisition model that grants the library's patrons access to a title list for a pre-negotiated amount of money over an agreed-upon time period, after which a set of titles from that list are selected for purchase--based on the evidence of usage gathered during in the initial access period. The cost of titles selected at the end of the access period needs to total the pre-negotiated amount of money. Libraries and publishers decide together which titles to make available, the length of the availability before making a decision about which ones to purchase, and how much money the library will either pledge or deposit. The library is bestowed an extra level of control over the outcome of purchasing under this model, but it is also labor-intensive.<sup>2</sup>

Evidence-based models of acquiring eBooks were relatively new to the scene in 2015 and deemed worth an investigation. The institutions of the Alliance were surveyed about their individual activity with evidence-based collections. In 2015, most did not currently nor previously had used an evidence-based purchase model for eBooks. When asked if they wanted the consortium to consider purchasing an evidence-based collection with a single publisher, few disagreed, but most also did not have enough knowledge to answer definitively one way or the other. Survey answers also indicated a disinterest in abandoning the current DDA program completely and a lack of clarity about what an EBA program would look like and how it differed from DDA.

The eBook Working Group reviewed the alternative options on the market using a rubric of desired facets and criteria developed from survey feedback, as shown in table 2. Proposals were solicited from publishers identified by the consortia members and a couple of vendors who had already approached the Alliance. The eBook Working Group reviewed eight proposals as a group and identified the top contenders from the options at that time. A final open call was held as another opportunity for Orbis Cascade Alliance members to give feedback.

Table 2: Orbis Cascade Alliance desired facets and criteria.

<b>Criteria based on goals</b>
Diversity of publishers
DRM-free
ILL rights
Price stability
Title stability
ADA compliance
Interface quality
Record management needs
Usage report quality
Spend devoted to purchases
Pricing model
Total cost

Wiley's evidence-based acquisition collection was considered a low-risk option for the Orbis Cascade Alliance to try on an experimental basis. The Wiley titles had a history of consistent use, there was a fixed cost, there were a large number of titles, and the consortium was explicitly entitled to ownership across member libraries. Cost was similar to the spending for Wiley title short-term loans and purchases in the DDA program, but the pool of titles increased under the EBA model. With these benefits in mind and criteria of the rubric met, the eBook Working Group met with Wiley representatives to learn about setting up the pilot.

### **Technical setup**

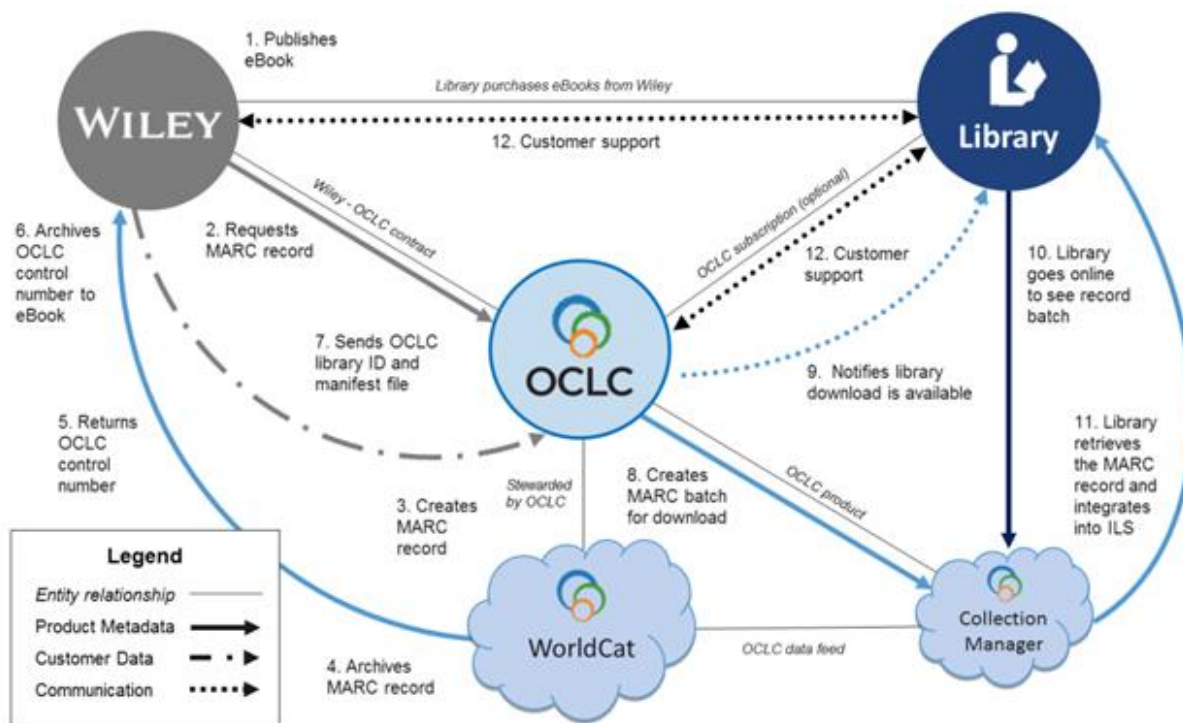
With the purchase of Wiley's Usage Based Collection Model (UBCM) license, the Orbis Cascade Alliance was entitled to free MARC records to enhance content discoverability. OCLC is Wiley's MARC records cataloging partner, and provides records for all of its eBooks and electronic major reference works, regardless of subscription status with OCLC.

Managing records for ephemeral content, such as in DDA, PDA, or STL present their own unique challenges to libraries and may serve as a deterrent to downloading the records into their catalog.<sup>3</sup> Despite these challenges, it is essential that libraries endeavor to incorporate records for all entitled content in their catalogs, as it will significantly impact the discovery and usage.<sup>4</sup> The eBook Working Group considered it worthwhile to provide full cataloging to its users.

Wiley collaborated with the Orbis Cascade Alliance to implement a system to help manage the entire catalog of records, while also retaining records for perpetual access titles. This section examines how records are created, delivered, and how the Orbis Cascade Alliance and other libraries have managed their records in the context of the UBCM license.

Before outlining the entire MARC process for the UBCM license, it is important to contextualize it based on how MARC records are created, delivered and supported for all Wiley customers. The current Wiley MARC information stream and processes are reflected in the figure 1 diagram below.

Figure 1: Wiley MARC Record Ecosystem



Wiley transmits ONIX data to OCLC, which contain bibliographic elements of each eBook title. OCLC ingests that metadata and performs an automated search for a print record match. When a record match

is found, that record is copied and augmented as an electronic version of that title. The record is then enhanced manually by a cataloging team to include additional MARC fields. If no match is found, original cataloging is performed for that title.

OCLC then shares OCLC control numbers (OCNs) for each title, which Wiley stores in its fulfillment system as product data. When a library within the Orbis Cascade Alliance purchases eBooks, Wiley sends the product information that corresponds with that specific order. OCLC then generates a custom MARC batch aligned to the product data for each library order. These output files are then hosted on the OCLC platform (Collection Manager™) where the library may download and integrate them into their local systems. Customer support is provided by Wiley or OCLC if assistance in receiving their records is required.

There are many different organizations, authorities, and companies that libraries may consult or products they can purchase to receive and maintain MARC records for their local systems. Wiley has chosen to partner with OCLC because they present an optimal experience to enhance content discovery, access and use. The importance of high quality records and the impact poor vendor records have on libraries cannot be understated.<sup>5</sup> OCLC's ubiquity in the library services field lends several advantages over other MARC sources. Below are the most notable distinctions:

- WorldCat – stewarded by OCLC, it is the world's largest online public bibliographic database. While records are created by OCLC's cataloging division, Wiley MARC records are indexed in WorldCat. This allows for records to be edited by the library community at large. No other library services vendor can offer anything on this scale or scope.
- Knowledgebase synchronization – OCLC assigns OCNs to all records which it catalogs for Wiley. This guarantees that when the KBART file is sent to OCLC, it can match a record for each title. Libraries who prefer to use the knowledgebase for records can find collections for saleable models fully loaded with MARC records for package titles. Other vendors have knowledgebases (KBs), but few utilize the OBNs to the same extent as the WorldShare KB.
- Interlibrary loan – libraries are permitted to set their holdings in WorldCat for perpetual access titles. This greatly increases the chances of resource discovery and sharing. Holding codes can be embedded in MARC records.



- Record quality – OCLC is known for its thorough cataloging practices and robust records. There are key descriptive data elements that set these aside from basic vendor records. Such MARC fields are called out in Table 3 below.

*Table 3: Wiley MARC record elements*

<b>MARC field</b>	<b>Field name</b>	<b>In all records?</b>
001; 019; 035	OCLC control numbers	All
008	Leader	All
020	ISBN	All
024	DOI (Other Standard Number)	Some
040	Cataloging sources	All
042	Authentication code	Some
049	Local holdings	All (optional)
050	Library of Congress classification number	All
082	Dewey Decimal Classification Number	All (optional)
100	Author name	All
245	Title and statement of responsibility	All
260	Publication, distribution, etc.	All
300	Physical description	All
336, 337, 338	Content, media and carrier types	Most
490; 830	Series statements	When applicable
505	Table of contents	Most
520	Book summary	Most
650	Library of Congress Subject Headings	All
650	Medical Subject Headings	Some
776	Additional physical form	Most
856	Persistent URL to content (tested for stability)	All

856	Cover image URL	Most
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- Consistent identifiers – Having inconsistent identifiers has been a pain point for libraries, as it may affect access to content.<sup>6</sup> While the DOI may not consistently appear in the 024 field, the DOI is presented as part of the persistent URL in the 856 field of each record. Additionally, all titles will have OCNs that point to WorldCat records.
- Record customization – Libraries can configure their Collection Manager™ profile to include vendor specific information such as invoice numbers, date of purchase order, product IDs and other information. Libraries can also make customizations to include or omit specific fields and subfields and add custom text to all of their Wiley records.

Wiley supports two methods of MARC record delivery; through the WorldShare Knowledgebase and through WorldCat Cataloging Partners (WCP). Though both types deliver MARC records through Collection Manager™ there are a few important differences between the two which are highlighted in Table 4, below.

*Table 4: Modes of Wiley MARC record delivery*

	<b>Knowledgebase Delivery</b>	<b>WorldCat Cataloging Partners Delivery</b>
<i>Contents</i>	Standard packages	Institution-specific invoices
<i>Data delivery</i>	KBART files (TSV)	Manifest files (XML)
<i>Publicly accessible</i>	In WorldShare KB and others	Only in accessible via library account
<i>Update frequency</i>	Monthly	Daily
<i>Delivery frequency</i>	Low frequency, large batch file	High frequency, small batch files.
<i>Available with other vendors</i>	Available in multiple KBs	Only available through OCLC
<i>Record type(s)</i>	New, update and delete records	New records
<i>When to use</i>	Beginning of UBCM license	End/renewal of UBCM license

Distinguishing these two methods of delivery is important when deciding which one should be employed for the UBCM license. To receive the full set of records for Wiley content, it is better to use the KB at the beginning of purchase. By utilizing the knowledgebase, there is near instant delivery of MARC records. The Orbis Cascade Alliance was able to utilize the WorldShare KB by finding the appropriate collection, configuring it as desired and then enabling MARC delivery.

Wiley creates and maintains approximately 50 different KBART files for its saleable eBook packages. These files are posted to an FTP site and shared with library solutions vendors: OCLC being the chief recipient in this case. The files and their updates are ingested by the different vendors and used for different applications and product suites. Multiple publishers deliver metadata to library solutions vendors in this fashion and will continue to do so.<sup>7</sup> The KBART files are updated at the beginning of each month and because of these updates, the Orbis Cascade Alliance received large MARC record batches.

The Wiley UBCM eBooks are managed centrally by the Orbis Cascade Alliance as an electronic collection in the consortium's shared integrated library system (SILS). Rather than each member creating their own collections and managing them individually, it is one electronic collection that displays as accessible to every member's discovery layer. Metadata came from WorldShare and was imported into the SILS Ex Libris Alma. The Orbis Cascade Alliance was an existing customer with an OCLC cataloging subscription, so setup was a straightforward matter of searching in WorldShare Collection Manager™ for the collection "Wiley Online Library UBCM All" with "my selected collections" unchecked and clicking the "Select Collection" button. The name of the file was edited to something easier to automatically import with an Alma import profile via SFTP. An import profile that adds the bibs and creates inventory needed to be created in Alma. The electronic collection and its inventory exist in the Orbis Cascade Alliance's "Network Zone" so that all consortium libraries' users can access in their individual discovery layers (Primo).

The eBook Working Group had a concern about duplicates. The working group deleted inventory of duplicate titles in other shared electronic collections to eliminate duplication, so that evidence statistics were not impacted. After the pilot, local internal notes were added to the purchased titles.

## **Statistics**

In early discussions with Wiley the concept of quarterly dashboard reporting was presented as part of the deliverables with the UBCM program. This tool would enable selection of titles through contextualization of use in both raw data and graphic presentation. Use data would be key on both a consortial level as well as for each institution. The eBook Working Group planned to use data in a similar manner as the DDA program selecting titles that met specific criteria.

The first report provided in July covered use for May and June 2016. As a comparator Wiley provided 2015 use of titles purchased individually by institutions. This was interesting information however not every institution had purchased individual titles from Wiley and the data reported only overall consortial use with no individual institutional use available. Additionally, summary data, top 20 most accessed titles for the current month, and top 50 most accessed titles were provided but no title-by-title specific use was included.

It soon became apparent that Wiley was not prepared to provide individual institutional use data. As sometimes happens, the expectations around what use data would be provided and in what format had not been clearly defined and the initial result fell short of the consortium's needs and desires. But a sample dashboard report had been provided in early discussions with Wiley that included title-by-title specific use data. The sample report was resurrected and supplied to the technical staff at Wiley who had not been included in the early discussions. By the next quarterly report in October the individual title use had been added.

There remained the lack of individual institutional use statistics and the challenge of how to tease out the individually purchased title use from UBCM title use. Utilizing the exceptional data management skills of a few individuals from the consortium, individual institution use data was compiled with assistance from Wiley technical support over a series of meetings. It required much work to get a clear picture of which institutions were using what titles so that a well-informed title selection could be accomplished.

### **Title selection**

With the revised goals in mind, the eBook Working Group used the dashboard reports to begin discussion of how titles would be selected at the end of the pilot year. Use statistics from Wiley were massaged by Alliance individuals manipulating data in Excel and using Pivot tables.

Disregarding titles purchased from Wiley through the DDA program and use for titles purchased by individual institutions (outside of DDA), several scenarios for title purchase were created using three elements: "Top" titles for each institution, PLUS the Broadest Use across the institutions after the "Top" selections, PLUS the top use across all institutions where a Combined Use was greater than  $X$  (where  $X$  is the combined use based on overall budget remaining after the first two factors). Table 5, below, illustrates the percentage of spending associated with adjustment to the number of "Top" titles and use by number of institutions.

Table 5: Orbis Cascade Selection Scenarios

Scenario1 - Top 5

	<b>% Spent</b>	<b>Title Count</b>	
<b>Top 5</b>	34%	180	<i>Captures top 5 titles used by each institution</i>
<b>Broadest use (8+ inst.)</b>	11%	69	<i>Captures all titles with use by 8 or more institutions after the "Top 5" selection.</i>
<b>Top use</b>	55%	262	<i>Where Combined Use &gt; 101 (target for combined use based on overall budget remaining)</i>
<b>Total titles</b>		511	

Scenario2 - Top 7

	<b>% spent</b>	<b>Title Count</b>	
<b>Top 7</b>	45%	245	<i>Captures top 7 titles used by each institution</i>
<b>Broadest use (8+ inst.)</b>	10%	64	<i>Captures all titles with use by 8 or more institutions after the "Top 7" selection.</i>
<b>Top use</b>	44%	205	<i>Where Combined Use &gt; 109 (target for combined use based on overall budget remaining)</i>
<b>Total titles</b>		514	

Selected approach

Scenario2b - Top 7

	<b>% spent</b>	<b>Title Count</b>	
<b>Top 7</b>	46%	245	<i>Captures top 7 titles used by each institution</i>

<b>Broadest use (6+ inst.)</b>	42%	243	<i>Captures all titles with use by 6 or more institutions after the "Top 7" selection.</i>
<b>Top use</b>	12%	53	<i>Where Combined Use &gt; 175 (target for combined use based on overall budget remaining)</i>
<b>Total titles</b>		541	<i>(One top use title with 172 uses was selected, and one with 177 uses was not, in order to accommodate the required cost total)</i>

Using this criteria, the Orbis Cascade Alliance selected Scenario 2b and purchased 541 titles that included each institution's "Top" 7 used titles, all titles used by 6 or more institutions after the "Top 7" selection, and titles with greater than 175 combined uses across all institutions. This method of analyzing use ensured that each institution gained perpetual access to titles of greatest interest to their users and therefore the best use of their contribution toward the program.

## **Future State**

MARC Records are only one of the major mechanisms libraries leverage for improving eBook discovery and access. Vendor platforms and discovery tools are the other modes where libraries focus their attention.<sup>8</sup> Wiley provides abstracting and indexing data to major discovery layer vendors. All eBook content is indexed at the chapter-level and sent to these providers on a regular basis.

Wiley has established a method for dealing with records for the UBCM license, but there is no uniform instruction across vendors for libraries regarding how to handle large batches of MARC records.<sup>9</sup> The Program for Cooperative Cataloging created a set of guidelines for provider-neutral MARC records and the Orbis Cascade Alliance mandates using such guidelines in their SILS. Recently there have been efforts undertaken by several publishers to standardize the metadata exchanged between publishers, solution providing vendors and libraries to help alleviate this issue.<sup>10</sup>

Wiley is currently collaborating with OCLC on creating an automated data exchange, better known as a direct holdings feed. This will allow for entitlement-based record delivery, and libraries would no longer have to manage their perpetual access MARC records manually (which has been the case with the Orbis Cascade Alliance after the first year). There is still a significant amount of development, testing, resources, and time required before implementation of this new data exchange between Wiley and library solutions vendors. This may not happen immediately, but it has been identified as a necessary change for Wiley, other publishers and vendors. It will prove crucial not only for improving library experience with MARC records but for the holistic electronic resource management process as well.

## **Conclusion**

The Orbis Cascade Alliance partnership with Wiley for a consortium-wide evidence-based acquisitions model for eBooks allowed us to devote 100% of funds to purchasing titles, and focus on a publisher whose content is consistently well used across member institutions, providing front- and back-list title access with no DRM. The Orbis Cascade Alliance's eBook program, which started with the DDA Pilot in July 2011, has evolved into a comprehensive approach to providing a core set of eBooks to member libraries and their patrons. The DDA model was fully uprooted in August 2017. The consortium continues to manage an eBook subscription package, and has begun to expand the evidence-based acquisitions approach to multiple providers beyond Wiley.



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