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# Aggregation Integration, Cooperation

The Three Imperatives of New York University's E-book Strategy by Angela M. Carreño and Bill Maltarich

FOR NEARLY TEN years the New York University Libraries have been designing, refining, and deploying a multiformat collection development, acquisitions, and discovery strategy for books. Because the book environment—particularly the e-book environment—is rapidly and constantly changing, this strategy remains a work in progress. Nonetheless, the principles from which we started, the methods we have employed to meet the goals these principles imply, and the difficulties we have encountered may prove instructive to other academic libraries. Although our dual-hosted e-book strategy in particular is idiosyncratic, a look at our efforts can highlight challenges faced not only by libraries but also their partners: vendors, publishers, and aggregators. In the end, we seek here to point out those problems in the hope of helping others avoid some pitfalls we faced. If some of our strategies resonate elsewhere, all the better.

NYU's decision to move toward an e-book-heavy collection development policy grew out of the local culture and a close consideration of the industry-wide climate. NYU Libraries needed to respond to the university's growth as a Global Network University with a fledgling library in Abu Dhabi and plans for a branch in Shanghai in 2014. NYU was and is committed to faculty and students' ability to carry on the same sorts of research with the same collection of resources across all of NYU, regardless of physical location. Given the limited size of the libraries at these two international sites and the prohibitive cost of mirroring NYU's print collection, our options were two: shipping material across the world

or concentrating on e-versions of many, if not most, of our resources. With the transition to e-journals essentially complete, this meant that NYU's e-resource collection development policy would need to focus on e-books.<sup>2</sup>

In this environment we realized that our e-book acquisition would, at least initially, focus on the acquisition of backlist e-books from major academic publishers. These large purchases offered clout in negotiations due to their size and expense and had immediate and noticeable impact on our collections upon their completion, so they seemed the most efficient first acquisitions. Thinking through our needs and the options current at the time, we developed the three imperatives of our e-book strategy: aggregation, integration, and cooperation. Below, we describe these three strategic pillars and explain why they are necessary to found a successful collection strategy for monographs in multiple formats. Given the importance of these tenets, we next describe the tools and partners we have employed to fulfill our vision. Finally, we present the difficulties we have faced implementing this strategy and our plans for moving forward.

# Aggregation

For every e-book title, we soon realized, libraries face the choice of multiple platforms for delivery.3 Quite often a title will be made available through multiple channels with multiple business terms on multiple platforms: titles are sold outright or leased; sold in collections based on publication year, on subject area, or sold individually; sold direct from publisher, through library vendors; made available through Patron Driven (also known as Demand Driven) access models and purchased individually only after some amount of usage, etc. The complexity of this environment is multiplied by the various permutations of platform and business model options.4 NYU determined early on that e-book titles scattered across multiple platforms caused problems for our internal workflows and, more importantly, for our patrons in terms of discovery and consistency of user experience.<sup>5</sup> We also predicted that the sheer volume of content on an NYU e-book platform would make an aggregated collection a discovery destination for patrons.<sup>6</sup>

We first faced the choice of a platform—a task that ended up being simpler than we had predicted. NYU lacked the staffing, the mandate, and the inclination to develop our own e-book platform, so we had to search for vended solutions. We had been subscribing to an aggregated collection of e-books that was being rather heavily used despite some complaints about interface and DRM. Discussions with ebrary, the vendor for that collection, were fruitful: NYU would purchase e-books through various channels (including ebrary-brokered purchases), and ebrary would, for a fee, host those e-books on an ebrary channel available only to New York University. This would allow NYU to include e-books from publishers who did not work with ebrary (e.g., foreign-language publishers and holdouts among larger academic publishers).

# ADDITIONAL ADVANTAGES OF AN AGGREGATED BOOK COLLECTION

We determined that in terms of serendipitous discovery, this aggregated collection of e-books would be a boon, but there were other reasons to seek an aggregated book collection.

# A Broad and Quality Collection of Books

As noted above, we recognized that the size of the leased collection of books we had in place made the platform an e-book destination. By extension, we believed that by consistently adding quality content in quantity, the value of the site would increase. We also imagined that additional content would add to the "gravity" of the site, that is, its ability to attract e-book seekers.

# **Consistent User Experience**

It was important to us that basic functionality such as navigation and search, as well as tools such as bookshelves, citation export, annotation, and highlighting be consistent across the e-books NYU purchased. This is possible when the books are available in an aggregated collection on a single platform.

# **Optimum Flexibility**

Taking into account the rapidly changing e-book environment, NYU believed that keeping up with technological change across our books and integrating e-books into other library tools would be simplest if we had the option for a single platform solution rather than many solutions for each publisher platform. Having all of our purchased e-books in one file format on one platform would also make migration to an entirely new solution legally possible and technically feasible.

A prime example of the advantage of this single technical solution is the ability to download books to a device. Although many publishers do not offer this functionality, NYU's platform, because it is powered by ebrary, allows for download to phones, tablets, and laptops for many titles. This has proven a boon to users and answered (if only in part) one of the most prominent complaints about e-book functionality at NYU across the majority of our books immediately upon its introduction.

Of course, the advantage of a single technology carries with it the universality of any technological disadvantages or limitations of the chosen platform. Because of this, we strive to be vocal contributors to our platform vendors development and improvement cycles.

# **Full-Text Searchability Across the Collection**

Having the majority of our books available on a single platform would enable a native search on that platform to include the broadest possible range. It would also make mediated searching via API or index sharing a simpler prospect given the single source of this data represented by our platform. These considerations

led us to believe that an aggregated collection offered discovery advantages both within that platform and, potentially, via other systems.

# **Shared E-book Indexing and Technical Specifications**

Although web scale discovery services offer a chance for aggregated search across books on separate e-book platforms, a single, institution-specific platform allows for indexing across the majority of that institutions books, including from publishers not included in the arrangements of specific search tools. The common indexing system, thesaurus, vocabulary, and technical specifications on a single platform should make search across books more efficient and consistent, even via one of those webscale tools. We also expect that having this platform simplifies maintenance as regards knowledge of full-text accessibility via any third-party tools, since we know that every book indexed from our aggregated collection is, by definition, available as full text.

# **Identifiers**

A single platform also provides a single set of consistent book identifiers, a true boon in the current e-book environment. As we discuss below, these identifiers can aid linking, de-duplication of records, the association of electronic and print formats, and many other technical processes that rely on a unique match point associated with a book.

#### WHY DUAL HOSTING MAKES SENSE

As we began to explore the possibility of an aggregated e-books platform, we did not lose sight of the benefits of access on publishers' and other e-book platforms. There were several reasons to seek dual platform access—that is, to include access via native platforms alongside access via the NYU e-book collection.

# **Search and Discovery Across Genres**

Many, though not all, publisher sites have consolidated their e-book and e-journal collections on a single platform. Some, in fact, have been banking on the value of this consolidation as a major value (JSTOR and Project Muse, for example), and we saw clearly the additional utility inherent in this move. Often researchers have little reason to prefer journal to book-length material and a search across both formats can prove fruitful, especially when a publisher puts out a large number of edited works, whose chapters are not often functionally different from journal articles. Our e-book aggregation strategy attempts to solve the problem of publisher/platform silos for e-books and access via publisher sites trades off an acceptance of these silos for the integration of the book/journal silos.

# Citations and Links of Record

As we considered aggregating e-books we worried about false negative availability results based on links in citations to the standard platform for books rather

than to our NYU platform. Citations to books on publisher platforms, were we to license strictly for local platform access, would appear to our users as books that NYU has not purchased and currently there is no technically feasible option for redirecting those links and no publisher incentive for redirecting patrons to the books on our site. Links using DOIs and crossref still require information about the location of the specific digital object and can lead to the same sort of false negatives. There is currently no comprehensive, reliable e-books link resolver.

#### **DIGITAL RIGHTS MANAGEMENT**

In our negotiations for dual platform access we quickly discovered disparities in the application of DRM between what publishers would allow on their own platforms and what we could enable at our aggregated platform. In part this stemmed from specific publisher policies and in part this was the result of a need to apply a least common denominator DRM across the e-books on our platform. Although in concept it is possible to apply varied DRM by publisher to our collections, to date this has proven a technical and workflow challenge we are unwilling to undertake. In other cases, publishers are very liberal with DRM on their own platform and more restrictive for content available from aggregators. By making books available simultaneously on our platform and the publisher platform, our patrons can take advantage of the most liberal DRM available in either case.

# Perpetual Access and Preservation Rights

As a research library, NYU is concerned not only with access to content but continued and perpetual access to content. In order to guarantee perpetual access rights to the book content, NYU saw the need to deal with publishers directly. Book aggregators sell publisher content under different restraints, terms, and conditions from what publishers may offer when selling content directly, and certainly only publishers themselves have the authority to alter standard permissions as part of purchase negotiations.<sup>9</sup>

Clearly the aggregation and dual-hosting strategies NYU employs involve close cooperation and open communication with our aggregator platform and direct with publisher. The necessity of including print in our thinking, however, carries along with it the need to cooperate closely with a third entity—our traditional book vendor.

# Integration

As NYU moved toward collecting e-books intensively, we quickly realized the importance of incorporating this relatively new format in the existing library environment. We planned our expansion into electronic books and designed our strategy with an eye toward the best possible integration of the new process into

selector workflows, into the processes for selecting print monographs, and into our ILS/discovery tools. In addition, we considered the importance of interlibrary loan, NYU branding, the new burden on our staff, and the consistency of the online experience of NYU libraries. We did not deem the latter considerations secondary in terms of importance, but because they required broader input and consideration than the former concerns, they were part of a separate process outside of our initial strategic planning.

#### PRINT AND ELECTRONIC INTEGRATION

NYU started our e-book collecting with the primary impetus coming from the university's expanding global presence, specifically in Abu Dhabi and, soon thereafter, in a planned library in Shanghai. The nature of these two international sites and the NYU mission demanded that NYU researchers at any NYU facility have access to a consistent breadth and quality of resources. Given the small size of the libraries at these sites and the cost of shipping material globally (which we have done and continue to do with great efficiency), we determined that overlapping print and e-book collections for backlist from major publishers was in the end the cost-effective means for serving our Global Network University.

For the continued collection of newly published books, we have initially been comfortable with overlap between new print and e-book purchases with the understanding that such duplication, which without other arrangements can mean paying on the order of 2.5 times the list price of material for unlimited simultaneous electronic access and the print format, was not sustainable in the long term. Therefore, we focused on two principle factors in the selection process: (1) avoiding duplication of electronic book purchases between centrally negotiated publisher packages and selector-driven book-at-a-time e-book acquisition; and (2) exploiting our backlist purchase experience to pave the way for format-specific acquisition of books as we move forward. It was immediately apparent that both of these considerations demanded the integration of our North American print approval vendor and distributor, YBP.

We reasoned that making information about our e-book purchasing centrally visible in the vendor's web-based acquisition tool, GOBI, was the primary way to avoid duplicate e-book purchases. Involving YBP in prepurchase package negotiations and in the acquisition of large packages of backlist electronic books, or, alternately, including them postpurchase through holdings loads in their system, we could ensure that selectors have up-to-date information regarding our purchases at the time of selection decisions.

The plan, growing from this reasoning, was to expand the workflows for retrospective purchasing to include ongoing purchases of e-books and print in tandem and thus allow our approval plans to exclude titles in print for which we had a standing order for an electronic version when that print was deemed redundant. Our initial plan was to begin with major publishers from whom we purchased what was effectively full press coverage and to initiate a process by which we had immediate access to electronic books as they were published on the publisher platform. In addition, we sought access as soon as possible on our platform via file transfer from the publisher to ebrary when necessary and by transfer of a purchase list from the publisher or vendor to ebrary, where titles would be activated in our NYU channel, when possible. The only gap this would leave to fill would be titles available in print only and titles for which NYU wished to purposefully duplicate print and electronic coverage. Ideally, for those titles, we have sought a business model based on the historical model for electronic journals—a deep discount price (DDP) for additional formats.<sup>10</sup>

Practical considerations, a fluid industry in terms of business terms, and publishing patterns have made this vision difficult to fulfill. The primary issue is the lack of readily available information prior to and even at the time of publishing regarding format availability. For many major presses, NYU is unwilling to wait for format decisions from publishers before purchasing a book because we have experienced dissatisfaction and sometimes disbelief among our users when, for example, a title they have discovered via book review or publisher announcement is available for sale but remains outside our collection while we await format information. For most subject areas, then, we have kept our print approval plan intact and supplemented it with ongoing e-book purchases.<sup>11</sup> This model, however, is cost prohibitive and unsustainable, so we continue to tout the importance of simultaneous electronic and print publishing or, at the least, clear information at the time of publication regarding format availability.

The need for an integrated print and electronic purchasing plan and the demand for deep discount pricing necessitates the involvement of parties that understand the universe of available content and formats as broadly as possible. Publishers have not traditionally understood their print sales to libraries because of vendor involvement as distributors. E-book aggregators have no tradition of dealing with print for libraries and all that print purchases entail: producing order records and customized MARC records, shipping, returns, and, for many libraries, shelf-ready book delivery. Even if either of these parties could manage these tasks, print sales of North American imprints must be immediately, reliably, and accurately reflected in our current vendor system and integrated with print approval plans.

No party outside of our traditional library vendor has the wherewithal at this point to deal with these concerns, and hence YBP has been an integral part of our e-book purchasing, functioning as a pilot partner when they are directly involved in our e-book purchases as well as when they serve as the database of record for the relationship between our purchasing history and the universe of available books in any format.<sup>12</sup> We see this involvement as crucial to our plans to rationalize and economize the relationship between our electronic and print book purchasing patterns, both as one-offs via selectors or in packages with or without a deeply discounted print component.

# INTEGRATION WITH OUR DISCOVERY ENVIRONMENT

The integration of e-book metadata into the discovery environment has served as the topic of multiple articles in the library literature and could easily stand as its own article in our environment, too. 13 The following should point out some of the considerations, solutions, pitfalls, and concerns we've faced at NYU, where this integration has always been crucial to our e-book strategy.

Clearly, any electronic resource that remains unknown to the library's discovery systems (specifically the catalog, but also our link resolver, our metasearch tools, and our reference and public services staff) is effectively unavailable. For e-books, adding MARC records, as one example, equals in importance to actually having the physical book.14 It could be argued that for e-books discoverability becomes a much more integral part of both collection development (a decision to catalog a free resource, for example, amounts to collecting it) and acquisitions (in a very real sense, libraries do not "hold" materials until they are discoverable). Integrating these e-books may best involve new discovery tools and systems (although that is by no means a settled point), but even work with standard metadata formats like MARC takes on a new complexion and demands new techniques, workflows and skills from traditional cataloging departments.<sup>15</sup>

Two major differences are scale and workflow cues. MARC records for e-books often arrive in large batches but unlike in the process for print books, we cannot rely on physical cues to initiate and forward workflow. For print, the arrival of a box of books triggers workflow, and diminishing piles of books represent progress—e-books leave no trace in our physical environment to indicate necessity, difficulty, or success. NYU's dual-hosting strategy adds an extra wrinkle to the cataloging process since for each e-book we purchase there are at least two functioning and important URLs which should be included in our records and must be clearly distinguished for our users.

Our e-book purchasing falls into two categories: large purchases of e-books in backlist packages and ongoing purchases of newly released e-books through package arrangements, which most closely resemble standing orders. Each offers its own challenges.16

# **BACKLIST PACKAGES AND BATCH RECORD WORKFLOWS**

Given NYU's global presence, we've focused on supplementing much of our backlist print holdings from major publishers with e-books. This makes financial sense given the cost of shipping books across the globe and the discounts available when books are purchased in large quantities. It also makes strategic sense given our commitment to a consistent research experience across all NYU global sites. Workflows surrounding these purchases must focus on a few crucial benchmarks: title level reconciliation, MARC record quality control, inclusion of platform URL, usage analysis, and troubleshooting.

# **Title-Level Reconciliation**

Although it seems elementary, we have found that we need to focus from the very initial stages of backlist e-book purchasing on a mutually confirmed, stable list of titles purchased confirmed by the publisher, any vendor serving as middleman, and the library. It seems glaringly obvious that date ranges of books included in a purchase (e-books 1995-2000, for example) are not sufficient for any aspect of collection development or discovery work, but quite often initial proposals for e-book purchases are described only in this rudimentary way. Title-level information is imperative: It ensures the value of the purchase, aids in cost-sharing analysis across subject funds and specific libraries (for example, in determining the expected contribution of a law library to a purchase), it is the foundation for ensuring delivery of books purchased, and it grounds ongoing discovery workflows.

Title lists first serve to determine the value of a proposed package of e-books: Overlap with the print collection, subject-specific coverage, knowledge of excluded titles, and simple metrics such as average cost per title clearly all depend on a transparent and mutually shared title list. A changing list of books covered by a purchase changes everything from the value of a package to the expected contribution from our libraries.

Comparison against title lists is the first step in our cataloging workflows, too. These lists must contain a functioning unique identifier that can be employed to match incoming MARC records against the agreed upon list of titles purchased. The first step in the cataloging process, then, is to compare the list of MARC records received with the list of books purchased. E-books cannot be considered a part of our collection if records for those books have not been received, so this comparison is fundamental to the collection development, acquisitions, and cataloging/discovery functions of the library.

It bears mentioning that books in a series and multivolume works prove especially thorny problems in this process. A note that a library has purchased all the books in a series does not serve the same function as a title-by-title list of those books, especially because we will expect these books to be analyzed—that is, cataloged as individual titles—during the cataloging process. Multiple volumes of a single work, each volume representing a separate e-book, pose the same difficulties: If the work is listed as a single title on the title list, cataloging must mirror this listing in order for basic comparisons such as title count versus record count to be reliable. Again, this is not always the case and often must be discussed and specified during the negotiation process.

Often, once the issues of multivolume works and books in a series have been settled, the remaining reconciliation process involves an identifier match across title list and MARC records and a more or less intensive back and forth with the publisher and/or vendor regarding missing, extra, or duplicated records.<sup>17</sup> Once a title match from list to MARC records received has been confirmed (or conceivably alongside this reconciliation process), these batches of records must be analyzed for record quality. Depending on the workflow, cataloging or acquisitions staff must also ensure that two URLs for each book are included on the initial record set or, alternately, that URLs for each book purchased on the second platform arrive, indicating that the dual-platform requirement at NYU has been fulfilled.18

# **MARC Quality Control**

Once the initial accuracy of the match between title list and MARC records received has been assured, or is at the least being pursued, records received are analyzed for quality. NYU has determined that because of the large numbers of records received for these packages and the wildly variant quality of records depending on record source, our first priority is to limit the number of MARC record sources we need to deal with. For NYU, our primary sources of records are our aggregator, our historical book vendor, and OCLC collection sets. Limiting these sources, in theory, provides a template for analysis and more accurate expectations for quality. History has proved, however, that quality can still vary from set to set because the initial source of records, even for our preferred MARC suppliers, varies as does, correspondingly, record quality. Backlist purchases also often require that we deal with other MARC suppliers, often the publisher or platform from which the books were purchased. Free e-books, especially, often require that we manage record sets from sources outside our three preferred providers.

Regardless of the source, NYU's Knowledge Access and Resource Management Services Department (KARMS) reviews records for quality. Although we would prefer that all records loaded match our high internal standards, NYU has decided that minimum standards for batch loaded records can be below those of our internal cataloging as long as they serve basic discovery functions without damaging the reliability or functionality of our catalog as it stands. Intrepid bricoleurs, the Batch Record Loading Team uses MarcEdit, spreadsheet analysis, sampling techniques, and a focus on the previously mentioned problem areas (books in a series, multivolume works) in order to ensure that the records meet these minimum standards. Beyond this analysis work, the team focuses on open lines of communication with MARC sources (another reason limiting these sources seems wise) in order to improve records that fall below our standards or even to raise the quality of records that we have determined could be loaded but which we have also determined could be improved. The specifics of their techniques, experience, and ongoing workflow improvements fall outside the scope of this article but, it should be emphasized, are crucial to efficiently allowing NYU's population to discover, access, and use these e-books in their work.

In addition to the catalog, NYU has looked to promoting its platform among users, to the use of our SFX knowledgebase, and our A-Z and metasearch database tool (xerxes on top of metalib) in order to provide e-book discovery. To a great extent, the link resolver knowledgebase has proven ineffective for e-book discovery. Many of the sets of books NYU has purchased are unique to NYU, the content on our own platform is often unique, and e-book identifier chaos has led to thorny issues with matching across the print and electronic formats. For the time being, we seek to rely on our catalog, with a combination of records loaded direct to our ILS (Aleph) and records loaded direct to the discovery layer (Primo), as the primary database for e-book discovery. Nonetheless, we believe that our aggregated e-book collection serves discovery, too, and that the sheer number of e-books available on our own platform makes this a go-to location for those seeking e-books.

# **Ongoing E-book Purchases**

In many ways, the concerns relevant to collecting backlist e-books and to current collections parallel one another. However, because current collecting is without exception predictive, at least if the library wishes to have access to e-books from the moment they are available, there are additional difficulties related to ongoing collections. Ideally, integrating e-books into approval plans from a library's vendors would allow this current collecting, but vagaries in the publishing process, demands from library patrons for immediate access to newly published books, and complex pricing models make this option, at least in its current form, less than satisfactory for major publishers' output.

An e-preferred or e-only approval plan fails NYU's libraries in at least two important ways. First, because publishers often hold off on e-versions of books, often those they think will be of greatest interest to the academy, an approval plan that incorporates e-books in a way designed to avoid format duplication often involves a waiting period to determine if an e-version will be available. For crucial publishers, NYU has deemed this wait period unacceptable, especially because for the most part the books likely to be withheld from the e-format are the books that are heavily reviewed, of the most interest to our faculty and researchers, and hence subject to the most vocal demand.<sup>19</sup>

Second, books purchased via the approval plan, at least currently, do not incorporate the pricing discounts that annual commitments to e-book purchasing, by publisher, collection, or subject area, can bring. This means that instead of a discount from, for example, a list price of approximately 100 percent of the print list price, libraries can pay somewhere along the lines of 150 percent of list price per title for multiuser versions of e-books. The cost of this acquisitions method is unacceptably high, especially given the limitations above, which currently result in the library duplicating purchases in electronic and print formats. In cases of such duplication, the library is paying around 250 percent of list price for the content.

These circumstances have meant that NYU has pursued arrangements with publishers directly (or via our vendors, either the aggregator or book jobber) for ongoing purchases of e-books. These agreements are usually for the forthcoming year and extend up to three years. NYU agrees to purchase the e-book output of a publisher either for their full frontlist or for books published meeting certain criteria—usually subject coverage or availability in a specific publisher collection. Publishers who cannot know what their output will be for certain even for the upcoming year provide title counts and representative, prospective title lists. The library can then adjust print approval plans based on this prospective purchasing.

For NYU, adjustments to date have been limited to eliminating approval print in a few subject areas, specifically books assigned to Library of Congress science ranges and excluding package publishers in e-preferred approval profiles. The commitment to even a year's worth of titles brings with it a discount off list price. Our arrangements include dual-platform access and a commitment to work with both our aggregator (ebrary) and our approval vendor (YBP) to meet our workflow requirements. Dual platform access comes at a fee. Often either ebrary or YBP has assisted in negotiating these purchases and in those cases we expect their portion of the purchasing workflow to be seamless, although this is not always the case.

The model for these purchases depends upon negotiation—we have arrangements direct with publishers, via YBP, and via ebrary, as well as consortial deals that include our MaRLI (Manhattan Research Library Initiative) partners.

When YBP is central to the ordering process, the ideal workflow is as follows: Publishers release new titles over the course of the year and allow NYU-authorized users immediate access to books covered by our purchase. A deposit account is debited in amounts corresponding to the books received. On a regular basis, likely monthly, the publisher provides a list of newly released titles and their unique identifiers. YBP manages the deposit account and provides, as soon as possible, MARC records for the titles on this list. At the same time, a list of these titles goes to our aggregator for inclusion on the NYU platform-this may involve allowing access to NYU users for titles already available in the ebrary system or the delivery of e-book files unique to the NYU ebrary channel. Once books are available on our platform, the aggregator sends a list of NYU platform URLs matched with unique identifiers. NYU then systematically updates the previously loaded records with the platform URLs as they are made available. In this way, we have immediate access to books on publisher platforms, the books are discoverable via the catalog as quickly as possible regardless of the vagaries of dual platform hosting, and records are updated with NYU URLs as soon as they are available.

If packages run through ebrary rather than YBP, the process is similar: Publishers send regular updates of newly released titles to ebrary, NYU, and YBP. Purchases are reflected in YBP's GOBI ordering system, titles are activated at ebrary or, when necessary, files are delivered and loaded on the NYU channel. In these instances, ebrary provides MARC records for our purchases, again to NYU's technical specifications. Ebrary manages the ongoing deposit account. The primary difference is that while dual hosting often runs more smoothly when ebrary sits in the middle of arrangements, MARC records are sometimes delayed until books are available on the NYU platform.

Packages negotiated directly with publishers follow the same pattern, but, whereas in the two scenarios above, the party central to the negotiations takes on the burden of directing communication, file transfer, and list management among publisher, vendor, and platform, when NYU goes direct with publisher that responsibility rests for the most part at NYU. We ensure that files are delivered and loaded to our platform and that holdings are represented in the GOBI system. In addition, NYU must ensure that identifiers in publisher title lists match uniquely with YBP and ebrary information. This is sometimes troublesome as lists may include ISBN, ISBN 13, eISBN, or eISBN13, titles often have not only these differing ISBNs, but multiple ISBNS or, occasionally, duplicate ISBNs.

In part because of this identifier difficulty, NYU has determined that MARC records including a single URL from the publisher and lacking the NYU platform URL are acceptable. The rationale here is that the platform is more likely to be a destination for those searching for e-books than a publisher site and that a single URL, because it leads to content, meets the minimum needs of our users. Often the cost of ebrary involvement in these deals is higher than that cost when ebrary deals with the publisher.

Regardless of the business model, reconciliation of lists represents the backbone of this process: Title lists must match MARC records available on the NYU platform. In addition, we must have in place an ongoing process for verifying that the title lists from the publishers match the publication output and the books NYU expected to received through our purchase. We've determined that the best reconciliation method for all frontlist purchases is twofold: First, to ensure on an ongoing basis that the title lists of books released from the publisher have matching, loaded MARC records and a version on the NYU platform, signaled by the receipt of a platform URL. Currently NYU is developing a database designed to track this type of reconciliation automatically and generate reports of discrepancies between the three sets of lists (e-books published, MARC records received, e-books at the NYU platform) for follow-up. The final step of reconciliation is regular (perhaps semi-annual, annual, or quarterly, depending on the track record of the particular set of books) reconciliation between lists delivered by publishers and books available from those publisher's sites.

The reconciliation process ensures that NYU is in receipt of the books we have paid for in the places we have paid for them to be available and that they are discoverable. It also helps ensure that publisher's predictive lists match appropriately with books published, not only in raw title count, but in types of books published and subject areas covered. In our experience, this type of reconciliation is an indispensable part of due diligence for both backlist and ongoing purchases.

Crucial to note is the pilot project status of these ongoing purchases. All of the parties involved have committed to this ongoing model for e-book frontlist package purchasing but our experience with the process is limited. Despite this fact, we have implemented one final flavor of e-book purchasing at NYU, in concert with our Manhattan Research Libraries consortium, including NYU, Columbia University, and researchers at the New York Public Library. This pilot project bears examination below because its reach will likely expand in the future.

# Cooperation

Recognizing the lack of physical limitations on simultaneous use of e-books, NYU, Columbia, and the New York Public Library have begun to pursue a cooperative, consortial collection development path. The first mutual purchase took place in 2012 for e-books published in the University Press Scholarship Online (UPSO) collection available from Oxford University Press and partner presses, including The American University in Cairo Press, University of California Press, Edinburgh University Press, University Press of Florida, Fordham University Press, Hong Kong University Press, the University Press of Kentucky, and the Policy Press. The model for the pilot included e-access to all forthcoming 2012 UPSO titles for all consortial libraries as well as a single print preservation copy. In effect, four versions of the book are purchased initially (three electronic books and one print copy) with the possibility of each library purchasing additional print copies at a discount. Pricing for the initial four copies is discounted by using a multiplier applied to list price. As part of NYU's strategy, we pay a dual-hosting fee to have access to these titles on our ebrary channel as well as at the Oxford site, but currently only NYU is taking advantage of this possibility.

The NYU workflow process for the e-versions of these books parallels exactly the ongoing purchasing model outlined above, with the exception that our print vendor, YBP, must incorporate the DDP pricing for print for all NYU print purchases of books obtained electronically through this arrangement. Currently, print purchases are made at full list price and credits are applied to NYU's account to represent the discounted print pricing. The workflow model will be tweaked to reconcile and verify this discounting process, but this is an aspect of the pilot that remains, for the time being, up in the air. Again, although this model was in effect for 2012 books, it is currently too early to comment on its success or even effectiveness. We feel confident, however, that the model is viable.

In addition to cooperation with our MaRLI partners, our e-book aggregator, publishers, and our print vendor and beyond concerns about the relationship between print and electronic book purchases and duplication within or across formats, NYU's environment calls for cooperation with a second Manhattan consortium. NYU participates in the Research Library Association of South Manhattan, which includes NYU, the New School, Cooper Union, Cardozo Law School, the New York Academy of Art, and the New York Historical Society.

In the past, our arrangements with those schools called for NYU to provide cataloging services to partner libraries and for our library, which is within walking distance of the majority of these institutions. Faculty, students, and staff at those institutions had borrowing privileges at NYU in the past. As our book collecting shifts toward electronic access, however, this function diminishes. Patrons from these partners can use the majority of our e-resources as walk-in users at NYU libraries, but they do not have institutional access to our e-books. In order to carry on the spirit of our prior arrangements, NYU and some consortial partners, the New School University in particular, have attempted to negotiate institutional access as an add-on fee to NYU licenses with publishers and aggregators.

Success in some of these negotiations has brought to the fore the need for strong lines of communication among this set of partners as well. Information about negotiations, licensing terms, title lists, and access restrictions as well as concerted efforts to make our intentions clear internally to legal departments and externally to publishers and vendor must flow unimpeded among partners in order to take full advantage of the potential of this sort of consortial work. Like much of the communication above, this is often difficult to sustain and can tend toward reactive solutions.

# **Looking Back, Looking Ahead**

While we continue to fine tune our book collection strategy—trying to streamline and rationalize dual-platform access to desired titles as they appear; fine-tuning communication with vendors, publishers, consortial partners; developing extensible workflows for cataloging, purchase reconciliation, information sharing among departments; and thinking through usage analysis and metrics of success—we also are thinking through and working toward possibilities for making our e-books more integral and less idiosyncratic to our library work. Some goals would include: piloting potential licensing and technical arrangements that would allow interlibrary loan of NYU e-books; making more transparent the rights and restrictions associated with individual titles on each of the platforms on which they appear; linking between NYU-accessible versions of e-books to take advantage of the unique strengths of the platforms on which they are available; and, always, enabling the most frictionless discovery and use of books in our faculty and students' research, learning, and teaching processes.

Some of these goals will retire a quantum leap from the current state of e-book licensing and delivery while others will likely be ongoing processes, improving incrementally to keep up with changes and make up for shortcomings. Either way, we believe our current strategy has equipped us for journey ahead—as a learning process and as a reconnoitering mission. Perhaps the lay of the land as we have seen it will prove helpful as others set out on this same journey and, better yet, gain us some closer travelling companions as we continue down this path.

# **ABOUT THE AUTHORS**

Angela M. Carreño is the head of collection development for the Division of Libraries at New York University (NY). Angela has led, coordinated, and supported the expansive growth of licensed electronic resources at NYU since 2000. She is the primary licensing officer for the Division of Libraries and assumes primary responsibility for consortial collection development commitments. She represents the Libraries on collaborative projects with other campus units and other libraries. Since 2007 she has intensified work on the NYU electronic book collection in close collaboration with NYU's branch campus library in Abu Dhabi, a library with an e-preferred collection policy and in support of the Manhattan Research Library Initiative (MaRLI). Angela has experience serving on numerous Library Advisory Boards established by publishers and is the current Chair of the NERL (Northeast Research Library Consortium) Program Council. She is the recipient of the 2013 Coutts Award for Innovation in Electronic Resources Management.

**Bill Maltarich** is the electronic resources librarian for the New York University Division of Libraries, where he has worked for the past seven years. He studied at Northwestern University and received a PhD in German Literature from the University of Wisconsin–Madison and an MSLIS from the Palmer School. He has worked with and focused on developing partnerships and strategies for integrating electronic books into collection development, processing workflows, library discovery tools, and patron research throughout his career.

#### **NOTES**

- 1. www.nyu.edu/global/the-global-network-university.html.
- 2. We also began to focus on multimedia delivery possibilities, but that's a story for another article.
- 3. Against the Grain provides a good overview of these myriad options, with the caveat that the options are in such a dynamic state that no overview can stay current for long. www.against-the-grain.com/TOCFiles/e-bookrollout.pdf.
- 4. One recent and helpful summary of these options and combinations is Mirela Roncevic, "E-book Business Models. A Complex Array of Factors," in *American Libraries Magazine*. June, 2013, www.americanlibrariesmagazine.org/article/e-book -business-models.
- 5. Usability concerns as explored by Merinda McLure and Amy Hoseth ("Patron-Driven E-book Use and Users' E-book Perceptions: A Snapshot," *Collection Building* 31:4 [2012], pp.136–147) or Lynn Silipigni Connaway and Heather L. Wicht ("What Happened to the E-book Revolution?: The Gradual Integration of E-books into Academic Libraries" *Journal of Electronic Publishing*, 10:3 [Fall 2007], http://dx.doi.org/10.3998/3336451.0010.302) and others (such as varying standards for both e-books and reading hardware; varying functionality and operability; and disparate, often constrictive, discovery and delivery mechanisms) are addressed by an institutionally aggregated collection on one platform.
- 6. Experience and research has born this assumption out. We ran a brief trial of Patron Driven Access collection development via ebrary in late February 2010 and purchased 675 titles in two weeks without having loaded MARC records. The literature also bears this prediction out. According to Alain R. Lamothe, "The size of an e-book collection was determined to show evidence of an extremely strong relationship with the level of usage e-books experienced" (http://crl.acrl.org/content/74/1/39.full.pdf).
- 7. We are however in the midst of a project to apply our license terms to collections of publisher books, specifically in regard to downloading as described above. Some publishers do not allow patrons to take advantage of ebrary's download functionality for books sold or leased by ebrary, but we are exploring the possibility that as dual-hosted customers we may indeed have that right.
- 8. It has proven difficult, however, to inform users about these varied rights and the varying locations of the most liberal DRM.
- 9. Even in a dark archive such as Portico, it is unclear that content purchased from aggregators rather than direct from publisher would be retrievable after a trigger event. Simply matching purchases on various aggregator platforms with publisher content in the archive would, under current conditions, be a monumental task.
- 10. "Additional formats" is intentionally vague. NYU has considered the possibility that not only print and electronic versions of books should be available as a full content payment plus DDP, but that other formats such as personal use POD copies for NYU authorized users would be covered under the DDP model.

- 11. In the sciences, our subject liaisons have seen clear to eliminate print in most instances, supplementing their e-collecting with slip notification about print availability regardless of the potential gaps delayed format availability might present.
- 12. Frequently, however, this is not an accurate portrayal of their position. There are, for many reasons, many e-book publications, packages, and offers, which bypass YBP and are not reflected in their systems. For now, we focus our attempts on accurately reflecting previous purchase of any content in the GOBI system rather than on GOBI reflecting ALL NYU e-book purchases. The goal is to enable conscious and conscientious selector decisions from within GOBI, so this policy currently suffices.
- 13. Annie Wu and Anne M Mitchell. "Mass Management of E-Book Catalog Records: Approaches, Challenges, and Solutions." Library Resources & Technical Services 54:3 (2010): 164-74; Kristin E. Martin and Kavita Mundle, "Cataloging E-Books and Vendor Records," Library Resources & Technical Services 54:4 (2010): 227-37; Rebecca L Mugridge and Jeff Edmunds, "Batchloading MARC Bibliographic Records: Current Practices and Future Challenges in Large Research Libraries," Library Resources & Technical Services 56:3 (2012): 155-70.
- 14. In fact, even though a user might stumble upon an e-book, often without the authentication information included in our systems (specifically the EZproxy prefix or site-specific URL), users will find the material inaccessible.
- 15. Lixia Zhao, Linda Wen, Donna K. Rose, and Maureen James, "E-book Metadata in ILS and Discovery Tools," Brick and Click Libraries Symposium Proceedings 99 (October 26, 2012) http://files.eric.ed.gov/fulltext/ED537605.pdf#page=108; Tony Horava, "Today and in Perpetuity: A Canadian Consortial Strategy for Owning and Hosting E-books," Journal of Academic Librarianship 39:5 (2013), http://dx.doi.org/10.1016/ j.acalib.2013.04.001.
- 16. We set aside here one-off e-book purchases via YBP's GOBI system since these integrate into our current workflows once our technical specifications have been communicated to the vendor and a "check-in" workflow, consisting of record review and URL checking, has been implemented.
- 17. During the purchase negotiation phase of e-book acquisition, it pays to attend to these problems in the title list of books for sale: duplicate titles are not unheard of in these lists, and it is possible that a package of books for sale includes books that fall outside the typical scope of the library's collections or excludes books, often popular books, that the library would like to own.
- 18. Again, the details of this process, especially because of the added complexity due to our dual-platform requirements, could and should be an article of their own. We are eliding important details and processes for the sake of the greater overview this paper should provide. In addition, e-book cataloging processes at NYU are currently in transition in an attempt to make this cataloging more routinized and efficient.
- 19. Potentially, a PRINT patron-driven acquisition model might solve these problems. E-books meeting our approval plan criteria would be delivered upon their availability and MARC records for print books, both those duplicating our e-book purchases and those matching our criteria and not duplicated in E, would be loaded into the catalog and purchased upon request. The difficulty is that the time frame for this delivery can vary wildly depending on the print run purchased by our vendor and hence the problem of satisfactory availability of new publications would, currently, remain unsolved in this model.
- 20. Workflows at our partner libraries are independent of NYU's and hence left unexamined in this article.