Functional Overview: Non-returnables

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This document describes high-level workflows and requirements for the support of non-returnable resources in the ReShare system. Non-returnables are defined as subsets of a larger bibliographic work, supplied in electronic format, and not requiring return to the supplying library. (The current scope does not include print-on-demand or loan of digitized ebook, though both of these may represent eventual stretch goals.) While we expect that much of the ReShare infrastructure being developed to support returnables can be reused or expanded to support non-returnables, a number of new, unique features will be required as well.

The immediate goals in drafting this document include: determining areas of future development that may influence current decisions; establishing consensus on needs within the project; and providing a high-level roadmap that can be shared publicly.

These requirements will later help kickstart development for non-returnables when resources become available. ReShare plans to engage in a user experience (UX) research process to develop prototypes for these non-returnable features. The requirements described here, in conjunction with the UX work, will also form the basis for a series of epics, features, and user stories that will be used to drive an agile development process.

Discovery

Discovery of non-returnables falls largely outside ReShare's purview. Most non-returnable materials -- including articles, book chapters, and standards -- are discovered through external databases that provide a more granular level of indexing than the typical library catalog. The types of services likely to lead to non-returnable requests include unified search indexes (e.g., Google Scholar, Summon, Primo, EDS) , citation indexes (Web of Science and Scopus) and abstracting and indexing (A&I) databases (e.g., Compendex, MLA Bibliography, PsycInfo).

When using these services, the patron typically identifies a citation for which they'd like to acquire the full text. The fulfillment of that need is then turned over to a series of tools within the local library environment, including OpenURL resolvers, ILS request tools, and resource sharing routing services.

As a secondary use case, it's possible that a patron may wish to request a non-returnable resource from the starting point of the MARC record representing the larger book or journal in a library's OPAC. In that case, ReShare should provide a fulfillment option that allows the patron to specify whether they want to request the full resource (likely to be a returnable) or a smaller

subset that may be filled with a non-returnable copy. That use case will be addressed as part of the Fulfillment section below.

Holdings management

Epic: Holdings management

Feature: Create a normalized format for holdings statements in the shared index.

Support for non-returnables will result in additional requirements for holdings management in the ReShare shared index. The current index is primarily scoped to the supply of individual, physical monographic volumes. Non-returnables, however, will require greater support for serials in the form of holdings statements. These statements -- which generally take the form similar to “Vol. 1., Iss. 1 (2017) - Present” -- will allow ReShare to compare the metadata from a citation against a library’s holdings and determine whether an individual article or chapter is available to lend.

The FOLIO holdings record already has a “holdings statement” field which may be used for this purpose. The chief drawback to this approach is that the holdings statement field is an uncontrolled text string, and it will need to be standardized.

Print holdings should be relatively easy to manage within this context. Libraries can supply print holdings statements for serial records as part of their regular updates to the shared index. ReShare will need some additional functionality to ensure that statements are provided and mapped to our standard format.

Feature: Support e-resources holding statement upload via spreadsheet.

Electronic journals and books will present a greater departure from ReShare’s existing shared index model. While some libraries may be able to use the shared index holdings statement to provide e-resources information, many libraries do not store MARC records for every electronic resource in their local ILS, instead relying on external e-resources knowledge bases as the place of record.

Following the example of RapidILL, we recommend that ReShare support a spreadsheet-based holdings upload for e-resources that can be easily created using knowledge base exports. This spreadsheet will likely have a limited number of core fields, such as title, ISSN/ISBN, publisher,

package, holdings statement, and URL. It will not be important to have MARC data for these e-resources, since users will likely be discovering them through external database tools.

Open questions: What fields are required for an electronic holdings upload? Can the inventory instance record support e-holdings information (especially if there's no MARC record) or do we need a separate storage mechanism?

Feature: Allow a library to block e-resources for lending based on criteria such as publisher, licensor, or package.

The other complication we need to consider for loans of non-returnables is licensing. Print resources can generally be loaned without restriction, but e-resources ILL is usually governed by the terms of a contract. ReShare will need to provide a mechanism by which a library can flag or block the resources that it cannot lend due to contractual restrictions. These resources still need to be present in the shared index so that requests can be checked against a library's own resources for local fulfillment before being sent to an external lender.

Fulfillment

Epic: Request

Feature: Provide a ReShare target for use with link resolvers.

The first step in the fulfillment process will be to create a new request in ReShare. As with returnables, this request will most often be created by automated means from the point of discovery. OpenURL will remain the primary method of capturing information about the user and citation associated with the request and sending it to ReShare. Since most article- and chapter-level discovery tools are designed to work with OpenURL link resolvers, we can be relatively confident that these tools will provide the necessary details -- though we should test this assumption early on.

We should also consider reusing existing tools whenever possible, such as the OpenURL format used by Google Scholar. This format is vendor neutral and provides a common syntax that can be used with multiple OpenURL services.

Once the patron has identified a citation for which they would like the full text, many libraries will send the user logically through a series of possible sources of fulfillment. Usually the first choice will be the library's own electronic holdings, as exposed through the link resolver tool. If the requested material is not present, often the link resolver provides a "helper window" that presents other options, including searching the OPAC for a print version of the text or placing an interlibrary loan request

Feature: Allow user to request a single article or book chapter when placing a request from an instance-level MARC record in the OPAC.

If a user is placing a request from a MARC record in an OPAC, we will need additional functionality to allow them to specify that they are requesting only a portion of the material, not the whole volume. It's also worth considering whether we can offer any features to support the loan of full ebooks via electronic delivery. This is a murky area, but could be a stretch goal for ReShare that would set us apart.

Feature: Support storage and display of metadata elements for non-returnables on request record.

Once the request is placed, ReShare can use the existing request record structure to create the request and store metadata about it. While many of the data elements displayed will be the same, it's likely new storage and UI elements will need to be added to accommodate holdings statements and e-resources metadata.

Feature: Citation verification process

Not all requests will have enough quality metadata to definitively match the citation to a title or holding within shared index. In these cases, ReShare should perform some form of citation verification. If no match can be found, then ReShare can reuse existing functionality to allow a staff user to view the raw citation data and manually search for the correct resource.

Open question: What source do we verify the citations against?

Feature: Check citation against local collection and route locally held articles for review.

ReShare will also need to check the citation against the local collection of the patron's library to ensure that they have not inadvertently requested something already available locally. These requests will be routed for manual review, and a staff member can retrieve a copy of the article from their library's holdings. It would be highly desirable to automate that process, but we're not yet sure how that can be accomplished.

Stretch goal: Automate the retrieval and delivery of locally held articles.

Epic: Rights management

Feature: Search for an open access version of a requested article or chapter before sourcing it from another library and automatically supply to user.

Many electronic articles requested by users will have an open access copy available somewhere, whether it's a Gold publication or a Green repository. Before a request is evaluated for loan by another library, ReShare should check to see an OA version is available on the web. This process supports the use of OA resources and also saves loans which may count against copyright clearance requirements as described below.

Open questions: What is the best way to source OA copies? Can we collaborate with the OA Button or Unpaywall?

Feature: Track information needed to apply CONTU Guidelines, including number of articles lent from a publication and year of publication.

For e-resources, a copyright clearance check will also need to be performed before the request can be sent to a supplier. Many libraries use the CONTU Guidelines for copyright clearance, which place limitations on what can be lent based on such factors as the age of the publication and the number of articles a supplier has lent from that publication during the calendar year. ReShare will need to track the relevant metadata needed to apply these guidelines and perform a check before the request is sent to a supplier.

Feature: Allow libraries to define local alternatives to CONTU guidelines and use them as the source of copyright clearance.

In recent years, some libraries have been testing the limits of Copyright Law by setting internal guidelines that are more generous than CONTU. ReShare also needs to support copyright clearance for libraries using custom guidelines.

Feature: Route requests that fail copyright clearance for manual review or automated purchasing.

If no supplier can supply the request due to copyright clearance restrictions, then ReShare will need to provide workflow support for the review and sourcing of these requests. IDS Logic currently provides a service that routes requests to external services, such as Get It Now or Reprints Desk. ReShare will need to support this or provide a comparable feature.

Feature: Provide assessment tools to track copyright compliance over time and identify trends that suggest titles for purchase.

ReShare should also offer features to help with routine assessment of compliance. In addition to evaluating whether a single request can be fulfilled, the system should provide reports and metrics that help assess titles for purchase -- for example, in the case of a journal that has a high volume of requests that cannot be filled due to compliance restrictions.

Epic: Supply

Feature: Allow libraries to specify what types of materials they can supply

As ReShare comes to support more types of lending, libraries will need to be able to specify the supplying programs they will participate in. For instance, some libraries may only supply returnables or non-returnables. Others may supply non-returnables, but only born-digital -- they will not want to scan. Individual consorta may choose to place restrictions on what types of participation are required, but ReShare will need to provide the technical infrastructure for libraries to indicate their participation and for a rota to be created taking these settings into account.

Feature: Create rota for non-returnables based on holdings, electronic availability, CONTU/local guidelines, and lending preferences

Once it has been determined that a request from another library is the appropriate fulfillment method, ReShare will need to check for available suppliers and create a rota. ReShare should be able to reuse the same routing group structure that has been proposed for returnables, but there will be several additional factors that must be considered, including copyright clearance and electronic vs. print format. It's likely that we'll want to offer the option of configuring a separate routing configuration for e-resources, as many of the considerations in play for physical materials (like geographic proximately) will be irrelevant.

Feature: Consolidate requests in a short timeframe within the same journal or book to the same supplier

There may also be efficiencies to be gained with e-resources, such as deliberately sending requests for the same article or articles within the same journal to the same supplier.

Epic: Document storage and delivery

Feature: ReShare document storage for non-returnable copies.

Non-returnables are supplied electronically, and so ReShare must provide a place where these documents can be stored and accessed.

The supply of print copies will have more in common with the current ReShare process for returnables. The supplier's ReShare node will receive the request, (optionally) place a hold on the item, and produce a pull slip. A staff user will retrieve the material from the shelf, scan a copy of the requested portion, and upload that scan to the ReShare document server.

For electronic resources, a staff member will access the electronic copy at the vendor's site and download a copy that can be stored in ReShare. The ability to automate this process would be a huge time saver, but it's unclear at this point whether it would be technically feasible.

Stretch goal: Ability to automate the process of retrieving and storing electronic resources.

Feature: Automatically OCR documents that are added to ReShare

For both accessibility purposes and general usability, libraries strongly prefer non-returnable copies of articles and chapters to be text-based, rather than image-based. To support this requirement, it would be desirable for ReShare to be able to automatically OCR any image-based files uploaded to the document server.

(Note that some libraries take the precaution of "flattening" PDFs -- i.e., saving a copy that strips out searchable text, links, annotations, etc., essentially leaving just an image. ReShare itself will not support any features related to the application or removal or DRM, but will assume that libraries will engage in whichever of these processes they deem appropriate outside of the ReShare system.)

Feature: Provide patron access to files in ReShare document storage.

Non-returnables are most often delivered electronically to the requesting patron. ReShare needs to provide a way to allow patrons to access these files. Typically this is done by creating a unique URL for the document. This URL can be emailed to the patron or made available through the patron's ReShare account.

Feature: Apply timed tokens to URLs to limit access sessions by number of sessions or time period.

Since there is no return process for non-returnables, the supplier needs to ensure that documents do not remain available to the patron for an extended period. Document URLs should expire based on either a time period or a set number of views.

Feature: Retention policy that results in the automatic deletion of the non-returnable copy after a locally specified amount of time.

In addition to providing timed tokens for URLs, documents should also be completely deleted from ReShare document storage after a set amount of time.