

1. Project Background

The University of Pittsburgh's Digital Research Library (DRL) is located at www.library.pitt.edu/libraries/drl. It is hosted by the University Library System (ULS) with the intent of supplementing the library's mission to "supports the teaching and research mission of the university and serves users through the creation and delivery of Web-accessible digital collections." The DRL is also used by the ULS as their in-house resource for "digital library issues and developments."

While users of the DRL may come from any research community, the ULS's mission is to support the students, faculty, and staff of its funding source, the University of Pittsburgh. In evaluating the DRL, it became clear that the outsider search interface was inferior to the internal interface. When using the DRL, it is difficult to exclusively use the DRL interface, so some consideration of both is necessary.

The DRL has its own department within the ULS that is responsible for maintaining, promoting, and developing the DRL. The DRL works with collaborators to enrich its resources, including assisting in the publishing of digital resources from outside partners. Collections developed and hosted by the DRL are considered to be published by D-Scribe Digital Publishing, or D-scribe. D-scribe collections include "over 100 thematic digital collections published by the ULS." The D-scribe collections include digitized items from the ULS archive's collections, as well as the

results of collaborations with other institutions, such as the Point Park University Archives, the Carnegie Museum of Art, and personal collections.

Two collaborations with the DRL are of especial notice: the East Asian Gateway Service (EAGS) and the Historic Pittsburgh project.

EAGS:

A transcontinental interlibrary partnership, the EAGS was established with the purpose of providing full-text Chinese and Korean language academic publications to researchers. Chinese documents are provided “to any individual researchers for research and teaching purpose...who cannot find the needed item in any U.S. libraries.” Services for Korean documents can only be provided to University of Pittsburgh faculty and students. Partner libraries in China and Korea receive English language materials in a reciprocal arrangement.

Historic Pittsburgh:

The Historic Pittsburgh project was funded in 2002 as a collaboration between the University of Pittsburgh, Carnegie Museum of Art, and the Heinz History Center to create an online archive of images. The initial funds were provided by a National Leadership Grant from the Institute of Museum and Library Services. The grant project ended in 2005, but the University continues to add partners and images to the site, with over 14,000 images from 44 collections now available online.

Although the ULS catalog has electronic materials for the exclusive use of faculty, staff and students, most items in the DRL are available through Open Access, allowing access to all internet users.

2. Organizations of resources:

The DRL's initial purpose was to provide a text collection for the use of scholarly research. The DRL now has over 100,000 digital objects in the D-scribe. These resources include, but are not limited to: photos, manuscripts, maps, books, journal articles, electronic theses and dissertations, and government documents.

Because the middleware used (see below) is class-based, the DRL attempts to ensure that all metadata falls into one or more of the four classes: images, text, bibliographic information, and finding aids. Most of the items in the D-Scribe collections are accessible to all users and provided through Open Access.

Although it is possible to search multiple classes through the PittCat catalog, the design of the DRL pushes users to search for either text or images, rather than both at the same time.

3. Service Features

The DRL department maintains and controls materials added to the digital collection. The staff consists of five full time staff including a coordinator, a metadata specialist, and a technical manager. They also have assistance from interns and graduate students. Although some structural and administrative metadata can

be provided by the DRL, the library depends on content holders to provide most of the descriptive metadata. Arrangements with the ULS's technical services department can also be made to provide this information.

Equipment and in-house staff performs some document imaging for the collection, but documentation implies that this imaging may be primarily for the digitizing of ULS's own archives and collections.

The DRL appears to use a proprietary interface, which is usefully organized. If starting at <http://www.library.pitt.edu/libraries/drl/> for searching, there are two search options: text and image. It is also possible to search the collections within the DRL individually.

Text:

In the text collection, results are organized in two columns: results by collection, and a list of results by items. The results by collection lets you select results within a D-Scribe collection to investigate. You may also select a whole collection (Darlington Library Texts, for example) and either search with new terms or re-enter your initial results.

The user may choose from results details, table of contents, view first page, and add to bookbag. Results details provides the bibliographic record, as well as the why the search term pulled up this result. Table of Contents provides a list of the contents, with the capability of looking at the contents based on the list. View first page gives the user the first digitized page (with the option of scrolling into the text). Add to bookbag allows the user to create a short list of items the user would

like to investigate, without breaking out of the results list. It is easy to return to the main results and to navigate within the text by either page number or by scrolling (next/previous).

Images:

Image searches provide an entirely different result format. After entering a search term, users automatically view their results in thumbnail images. These are on a tab called “images with captions”, which can be traded for “images with full record” (thumbnails are provided and users then click on an option for descriptive info), or “captions only.” When users select ‘Full Record’ for any image result, a new window opens with the image and its full bibliographic record. In my searches, captions and full record appear to be the same information, with only the presentation of the image varying.

Because of the size of ULS, it can be difficult to determine when a search has led from the public digital collection into the main (print) collection and the electronic proprietary collection, which is available only to students and staff at the University of Pittsburgh. Although one can safely start at the digital research library URL (<http://www.library.pitt.edu/libraries/drl/>), after exploring digital materials, it is difficult to return to this specific page. Sometimes an option for ‘home’ to the DRL search page is evident (as on the results page). However, when within D-Scribe collections, the obvious options allow the user to choose either ULS home (which brings the user to a general search page for the entire UPitt catalog (<http://www.library.pitt.edu/>) or archives.

D-Scribe:

Searching by a particular D-Scribe collection can also be useful: (<http://www.library.pitt.edu/dscribe/search.php>). D-Scribe collections include both images (eg: Audubon's Birds of America) and text (eg: 19th Century Schoolbooks), and perhaps obviously, are already narrowed into a topic collection, making relevant searches more certain.

4. Technologies:

Documentation for the DRL states that three ULS Web servers host DRL content, including the streaming AV material. Bandwidth information is not available. The middleware is provided by class based DLXS. DLXS is a search engine developed and distributed by the University of Michigan's Digital Library Production Service. As stated above, the class-based middleware uses "classes" or format categories (such as images, text, bibliographic information, and finding aids) to sort and retrieve materials.

As stated above, the DRL uses a proprietary interface, however the overall catalog for the University of Pittsburgh uses the AquaBrowser Library interface. Although this interface for the Pittcat catalog search engine is not exactly in the scope of the digital library being reviewed, it is important to note this because users of the digital library are very likely to accidentally find themselves searching on Pittcat instead of exclusively in the DRL. Comments on the AquaBrowser are in the final section below.

The DRL hosts over a hundred digital collections for use by the public. These primarily are shared using the Open Archives Initiative's Protocol for Metadata Harvesting (OAI-PMH). This protocol is based on the the Dublin Core metadata scheme. The DRL also offers assistance in the mapping processes for other metadata schemes.

5. Comments

AquaBrowser/PittCat:

The interface for the search engine used throughout the University of Pittsburgh's entire catalog (for digital and print collections) is AquaBrowser Library. The interface between the DRL and the AquaBrowser are very tightly welded together, to the extent that a naïve user of the DRL is likely to end up using the AquaBrowser for searching the entire UPitt catalog, rather than the more narrow DRL resources.

AquaBrowser is a ProQuest Serials Solution interface and information management tool. In addition to straightforward navigational tools, AquaBrowser's interface produces three panels of results from the user's search. These are, from left to right: a 'cloud' of related terms, the actual search results, and refining options.

As usual, there is a learning curve for users, but there are many useful ways to narrow results. The "Refine" right hand column allows the user to limit rapidly to only the desired materials, formats, languages, publishing dates, subjects, recently

added items, and more. It is almost an overwhelming wealth of options. In many catalogs these refinements would then take an annoying amount of time to limit or resort. This catalog is wonderfully fast in returning results, so exploring various refinements is not a time investment.

Personally, I like the cloud searching option provided by the AquaBrowser interface, but it has some of the same flaws that searching google would have. Searching the author name "Calvin Roetzel" for example, pulls up a cloud of associated terms that are associated with the Calvinism Reformation movement. Since the author is a religious studies professor whose primary works involve the study of Pauline letters, this could lead a user to works unrelated to the intended research, although still within the field of religious studies.

That said, I believe that if a digital library user is familiar with how the AquaBrowser cloud works, it may be incredibly helpful for exploring the DRL catalog. The terms are color coded, include variant spellings, translations, associations, discovery trails, and specify the original search term as a thesaurus term being searched. A sophisticated user could find these invaluable.

More comments:

A minor problem that arose with the digital collection are awkward links to the 'bookbag.' The bookbag retains selected items that the user wants to investigate later, or in depth. When using this option, I found myself at a dead end, with a page simply stating, "Your Bookbag has 2 items." No access to these items was provided

on this page, nor were there any links to redirect me back to the catalog or elsewhere. (This page was titled: "Bookbag count." Why I would want a page with the number of items in my bookbag, with no access to these items is baffling to me.)

In summation, I think that the UPitt digital library is breathtaking and sophisticated. The DRL staff appears committed to assisting interested partners in digitizing their collections. I am impressed by their scope, outreach to partners, and the apparent dedication to their mission.

References

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