published works. If Linked Data comes to dominate the library world, then each library around the world could perhaps choose which form or "variant" name displays from the authority files. In the meantime, *RDA*, as applied in PCC law libraries, will continue to input data and descriptions into a skewed bibliographic/authority universe because the "variant" name in the actual script of the name is not required.

I must mention here that the skewed bibliographic universe is not in itself incorrect or wrong—it is simply the result of cultural biases in technology and library metadata. One of the asides in the column mentioned above is an observation by the writer regarding the intent to make *RDA* the international standard for library and bibliographic metadata. He writes, "I could be wrong, but I detected a sense of, 'Well, let's try this and if it doesn't work, we'll try something else.'" *RDA* is promoted as a standard, but like all standards, people designed it. Catalogers and metadata specialists ask themselves, "What kind of thing is this, how might it be defined, and more importantly, how should it be represented?" These humanist, philosophical questions are then coded into biases for industry-wide consideration and application. The above three questions asked by catalogers are the same type of questions asked by artists.

Considering this art project and the comment above about the skewed bibliographic/authority universe, we should note that catalogers have been working on this international project since the Paris Principles in 1961. It is a moving target, however, since definitions and their applications are biased toward contexts and technologies (which keep changing). Nevertheless, this is okay. "Change is the only constant" is a mantra we know well in libraries. For now, I want to suggest that the "something else" we try is to stay awake for an international standard for name authority data that more robustly represents the global network of information.

I am open to discussion on the matter. Please feel free to reach out to me via e-mail.

Representing Your Open Access Materials in Federated Search

THE INTERNET

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Federated search is nothing new—it has been around for decades. However, it has gotten incrementally better, and projects have gotten incrementally better as well. This article gives an overview of federated search in the library field with an emphasis on open access materials rather than subscription materials as well as an emphasis on empowering libraries to push out records for institutional repository and digital library materials.

Federated search is the process of searching across multiple databases at once with a single query. Sometimes it means running a live query on those databases then displaying results together. Sometimes it means gathering information ahead of time, storing that information, and then searching it. Which way this is done is not that important for libraries—unless you are dealing with information that has to be up-to-date (like news) or you have a database that bills by the search/view and you have something like a discovery tool running searches into that database or triggering a hit on your Patron Driven Acquisition products. For searches where information is gathered and stored ahead of time, the information will likely be re-collected on a schedule. Older records will be purged or updated, and new records will be added from each source on a schedule—weekly, daily, quarterly.

Representing open access materials in discovery tools

The main impact of federated search for the library field is discovery tools. A discovery tool searches across the library catalog and subscription databases that the library pays for. A discovery tool can also search across open access online content, but most discovery tools are set up to tie into electronic resource management tools, and those are geared towards managing information about and access to paid content. Depending on the specific platform used, it might or might not be possible to get the records into that platform. The most likely route for getting materials in is through some other service that can collect the records and share them to the discovery tool. Major players in this area are EBSCO Knowledge Base, EBSCO Discovery Service, Serials Solutions, SFX Knowledge Base, and Primo Central Index. In general, those services do not focus on open access content but will accept it and present it as an option for libraries to display to users. As a library configuring a discovery tool, you can look at what records are available for open access materials, with an eye as to what materials records are available for and how up-to-date and detailed the records are. For your library's institutional repository and digital library materials, you can contact each service and try to get records included. In general, if you are affiliated with a larger library that is already pushing out digital library records, it is best to try to get your materials integrated into

that workflow. Once your materials are available to discovery tools, it is up to any libraries subscribing to those tools to choose to include them. Including open access material in library catalogs is not the norm.[1] However, having an option and an easy path to including open access content may help.

Prominent federated searches for open access material

Separately, there is activity in federated searches that focus primarily on open access material. Here is information about some major players.

Digital Public Library of America (DPLA): This service focuses on cultural heritage materials: photos, postcards, letters, etc. In general, institutional repository or scientific research materials are not suitable for inclusion. Since law library collections tend to focus on legal research—such as law journal articles or white papers—core collections are probably not suitable for inclusion in the DPLA. The DPLA collects materials through Content Hubs and Service Hubs. A digital library with more than 200,000 suitable items and a way of getting the metadata to DPLA can apply to be a content hub. A library or other organization can apply to be a service hub if that organization is able to collect metadata from other institutions and aggregate it for the DPLA. The DPLA has specific metadata requirements and guidelines, and large streams of records come in through a limited number of hubs. Most libraries participate by working with a service hub. The service hub is responsible for collecting metadata records from institutions in the area, ensuring that metadata meets DPLA requirements (which might include training to other libraries or scrubbing metadata before sending it on), and then contributing the metadata to the DPLA. For a law library wishing to have material in the DPLA, the best approach would be to identify collections with cultural heritage material, check the DPLA's website for a list of approved service hubs, and reach out to a service hub in the region to request to contribute materials.

Directory of Open Access Journals (DOAJ): The DOAJ is a long running federated search of scholarly journals and articles published in scholarly journals. It recently updated inclusion criteria. Since March 2014, a journal wishing inclusion in the DOAJ must fill out an application with more than 50 questions. The journal must be peer reviewed or have a clear editorial process, must have an open access statement, must have an ISSN, and must not be subject to an embargo period. More information is available at https://doaj.org/publishers. For law libraries wishing to submit a journal, the embargo period and open access statement are the most likely barriers to inclusion. Because of the extensive quality control in place in DOAJ, inclusion can be a good way to get exposure and increase influence.

Bielefield Academic Search Engine (BASE): BASE is another long running federated search of scholarly journals and articles published in scholarly journals. The application process is much simpler than the one for DOAJ. Law libraries hosting law journals can submit each journal for inclusion in BASE and the process is very straightforward as long as it is technologically possible to submit the law journal metadata.

The tech of sharing metadata

The technology of sending out or collecting metadata records is largely done through OAI-PMH. OAI-PMH is a protocol for asking what metadata records are available in what formats, then grabbing those records—either all at once or broken out by "set" or date range. For someone harvesting records, it is only possible to scope a harvest by "set" or by date range; it is not possible to do anything like a keyword search. For someone sending out records, the most important thing is to look at what "sets" are available in the OAI-PMH feed and be aware of what level of granularity is available when submitting digital library materials to a federated search. For example, is there a way to separate peer reviewed from non-peer reviewed from cultural heritage materials? "Set" (i.e. setSpec argument) in an OAI-PMH query usually corresponds to "collection" in a digital library, but it might be possible to configure the digital library software to send out something else, like tags to make a setSpec argument. Every federated search will have inclusion criteria, and you have to be able to scope what you are submitting to fit those criteria, for example, by sending only specific collections/sets. When a record goes out in OAI-PMH, it goes out as XML, and the XML can carry a variety of formats such as Dublin Core, MODS, MARCXML, or LOM. What format a digital library can send out, and what format a harvester can collect, will depend on the specific types of metadata that each is able to handle. If you want to play with your own metadata, MarcEdit lets you harvest via OAI-PMH, and the Chrome browser will let you view XML directly, so you can use Chrome to manually query and view results. For Digital Commons, the most common digital library platform among law libraries, the OAI-PMH feed will be found at your_url_here/do/oai/?. For example, I can begin queries on Florida Agricultural and Mechanical University (FAMU) law's institutional repository using http://commons.law.famu.edu/do/oai/?verb=Identify and then work through other queries to see what sets are available and download metadata records.

Endnotes

1   Edward T. Hart, Indexing Open Access Law Journals or Maybe Not, 38 *Int'l J. Legal Info.* 19 (2010)