

Managing Discovery and Linking Services

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There is a growing trend towards a consolidation of services for Electronic Resources Management (ERM), A-Z journal listings, full text link resolving, and discovery services under a single service provider. In many cases, the adoption of a discovery service from a provider that is not the same as the libraries' existing link resolver service means managing multiple knowledgebases. In this session, three librarians gave an overview of their experiences and strategies for maintaining separate link resolving and discovery services in lieu of adopting a full suite of services from a single service provider. Each speaker presented a case study on the advantages and challenges of managing their chosen discovery service: EBSCO Discovery Service (EDS), Ex Libris' Primo and ProQuest's Summon, in conjunction with the CUFTS/GODOT open source knowledgebase (KB) and link resolver service.

KEYWORDS academic libraries, discovery services, linking services, link resolving, knowledgebase, ERM

INTRODUCTION

There are multiple systems in use in the modern academic library. As more information became available online, an academic library needed more than the traditional integrated library system (ILS) with all its associated modules such as acquisitions, cataloguing, circulation, and an online public access catalogue (OPAC). The modern academic library began to acquire additional systems to manage access to its electronic resources. A library needed an off-campus authentication system, a website in addition to an OPAC, a link resolver service with a knowledgebase (KB), a webpage listing of databases and an electronic resources management system (ERM) to help manage access to all its electronic resources.

Then Google entered the picture and dominated the concept of search. Students, faculty and researchers in academic libraries began to bypass library services and websites entirely and went directly to Google or Google Scholar to conduct research. Soon, libraries needed to find a way to get students and researchers back to the library virtually, if not physically. Libraries needed to find ways to encourage its students, faculty and researchers to use the large number of academic resources paid for by the library.

Libraries first began by ensuring that Google Scholar results would include access to library-purchased holdings. This was usually achieved through a library's link resolver service that would output a library's electronic journal holdings to Google Scholar. Then, libraries invested in federated search tools to simulate the Google single search box experience.¹ Unfortunately, federated searching never lived up to its promise and eventually gave way to the concept of web scale discovery that includes results from a library's licensed electronic resources as well as its physical resources such as print books, audio and visual media, government documents and archival material.²

There are currently four major players in the world of academic library discovery services:

- EBSCO Discovery Services (EDS)
- Ex Libris - Primo Central
- OCLC – Worldcat Discovery
- ProQuest - Summon

Each of these entities also offer other valuable products and services that are used by academic libraries, primarily knowledgebase and link resolving services as well as electronic resource management (ERM) systems. Increasingly, these service providers are also offering libraries both content as well as a library services platform (LSP) to replace the traditional ILS. As libraries adopt a discovery service, there may be incentives from the commercial provider for the library customer to adopt their entire suite of services to simplify the support and implementation of such services. When neither the link resolver nor the discovery service share the same central index, a library may find itself managing two knowledgebases, even when they are from the same service provider.

ABOUT CUFTS/GODOT AND RESEARCHER

Starting in 1997, Simon Fraser University Library created a tool called GODOT which was initially developed to conduct z39.50 searches of library catalogues within a consortia environment so that libraries could place unmediated document delivery and interlibrary loan requests.³ By 2002, this tool evolved to include link resolving services when the CUFTS knowledgebase was created to support openURL and full text linking. In 2008, an ERM system

was integrated into CUFTS. Today the SFU reSearcher suite of open source software resembles the same suite of tools that commercial link resolving and ERM services provide:

- A knowledgebase (commonly referred to as CUFTS)
- A link resolver (called GODOT)
- A public A-Z listing for journals (CUFTS Journals Database or CJDB)
- An electronic resources management (ERM) system
- A public A-Z listing for databases (CUFTS Resource Database or CRDB)

The reSearcher suite is open source and released under a GNU General Public License.

CASE STUDY ONE: SIMON FRASER UNIVERSITY

Overview

Simon Fraser University (SFU) is considered a medium-sized public university in Canada with 20,203 full-time equivalent students enrolled in undergraduate and graduate degrees located in the Metro Vancouver region of British Columbia, Canada. While the university has campuses in three different municipalities, SFU is generally considered a single site for licensing purposes since it operates under the auspices of a single president/administration. Although SFU does not have a medical school nor does it have a full law school, SFU does have a Faculty of Health Sciences primarily focussing on policy issues and research, as well as a School of Criminology, which means SFU has similar information needs to large academic libraries that have medical and law schools.

SFU Collections and Systems

For fiscal 2014/2015, the SFU Library budget for collections was just under \$9.4 million Canadian dollars. The library spent an estimated 70 per cent of its budget on electronic resources and the A-Z journal listing has over 115,000 titles. The A-Z database listing includes over 700 separate entries and there are about 1.1 million e-books in the library catalogue. These statistics include open access journals, databases and e-books. The library uses Millennium from Innovative Interfaces, Inc. as its primary ILS, EZproxy for off-campus authentication and CUFT/GODOT for ERM and link resolving. In 2010, the library implemented Summon.

Summon at SFU

SFU signed up for the Summon service in the spring of 2010. The service was branded *Fast Search* to avoid a product-associated name, in case the decision was made to switch to a different service in the future. Catalogue records are delivered daily by file transfer protocol (FTP) and the procedure is scripted and automated. However, electronic journal holdings must be added via the Serials Solutions Client Center to the 360 Core knowledgebase. A Summon subscription includes access to the 360 Core knowledgebase which also serves as the central index for the Summon service. Unbeknownst to the library at the time of the adoption, this meant that SFU Library would have to manage a second knowledgebase. Even though the principles underlying the KBs of both CUFTS and Serials Solutions' 360 Core are very similar, managing two KBs added complexity to the Electronic Resources Librarian's already increasing workload.

Both the CUFTS and 360 Core KBs contain two main types of targets. The first type of target are those that can be auto-activated. These are the aggregator databases (EBSCO, Gale and ProQuest databases containing full text) and Big Deal journal packages (Project Muse, JSTOR archive collections, ACM Digital Library). Libraries have access to everything in the target and the KB service provider looks after updates to these targets. The second kind of target in a KB

are the managed targets. Managed targets are those in which a library subscribes to only some of the titles in the KB listing and/or where a library needs to enter its own specific holdings to represent their electronic entitlement, such as journals listed on Highwire Press or Ingenta Connect platforms. Keeping the managed targets up to date in two places is an almost impossible task for one person. The SFU Library has a significantly large collection of electronic journals and the Electronic Resources Librarian was making frequent (almost daily) changes to the library's managed targets. At the time, SFU Library had neither a support staff person to assist with the work, nor another librarian who could perform the work. Thus, the CUFTS KB had to take priority because it formed the primary A-Z journal listing and knowledgebase for the link resolver already used in a variety of online resources, such as all of our EBSCO and ProQuest databases, Web of Science, and many other online resources capable of openURL link resolving. In 2010, the 360 Core KB was used only for indexing purposes for the Summon service. Index-enhanced linking (direct linking) was not introduced in Summon until mid-2011.

Workflow/Solutions at SFU

SFU Library signed up for the Summon service in the spring of 2010 which gave the library about four months to implement and launch for the September 2010 semester. During the summer, a snapshot of the library's electronic holdings were activated in 360 Core manually in time for the launch of *Fast Search* as the default search box option on the library's home page. Previously, the home page search box defaulted to what was known as *Library Quick Search* which contained a drop down menu for various options related to searching the library's catalogue, the library's FAQs, the library's website, and a federated search tool called DBWiz. At the time, there was no actual plan for future maintenance of 360 Core.

However, during 2011, some high priority managed collections were identified and given to a group of technical services support staff to match between CUFTS holdings and Serials Solutions' 360 Core with the idea that they might be able to do this once or twice per year. Unfortunately, this project demonstrated the need for additional and fully knowledgeable support staff working in the area of electronic resources. Support staff simply did not have enough experience with electronic resources in their regular day to day work to make independent decisions. Choices in 360 Core were overwhelming for support staff who would otherwise not be doing this work full-time. There was a significant learning curve and the Electronic Resources Librarian was consulted frequently due to the lack of standardization between the two knowledgebase service providers. In CUFTS, the targets are known as resources, in 360 Core the targets are called databases. Names for targets and providers varied between the two KBs. The number of titles in similarly named targets were also different, so support staff did not have confidence in choosing a target to apply updates. In some cases, there were multiple targets to choose from or targets known to have ceased continued to display as active options. Attempting to pass along this work to support staff demonstrated how managing electronic holdings required advanced knowledge or familiarity with electronic journal publishers, providers, platforms and the business of academic journal publishing.

One of the main issues for SFU Library was that the library participates in a national consortia, the Canadian Research Knowledge Network (CRKN) for numerous large academic journal publisher packages for which none were represented in either service. All of these CRKN Big Deals were managed on a publisher's primary A-Z target in each KB. Luckily, in 2012, the CRKN consortia formed a Serials Management Task Group, which is now a standing subcommittee of CRKN. The subcommittee is tasked with securing title lists from publishers in

order to create CRKN-labelled targets in all the major link resolver service providers used by their member libraries: CUFTS, EBSCO A-Z, OCLC, Serials Solutions 360 and SFX. These new CRKN-labelled targets solved a big problem for SFU Library since these new targets could be auto-activated and covered a large number of academic journal packages including Elsevier, Springer, Wiley, Taylor & Francis, Cambridge and Oxford University Presses, Sage, and others.

Meanwhile, SFU was making other changes and advances in its discovery service using the Summon application program interface (API). In the original implementation of the Summon interface, there was much disappointment among librarians at the overwhelming number of newspaper articles dominating the search results from *Fast Search*. Also, an analysis of the terms entered into the default *Fast Search* box indicated that users were not only looking for scholarly, peer-reviewed articles on a topic, but were also looking for information on specific journal titles or databases, as well as library services such as hours of operation. To accommodate end user behaviour, SFU Library developed an additional layer on top of the Summon discovery service. *Library Search* replaced *Fast Search* as the default option on the home page in the summer of 2011, only a year after the implementation of Summon. *Library Search* presents bento box search results from the Summon API for journal articles, newspaper articles, and books or media from the daily catalogue load to Summon, in addition to results from the library's A-Z list of journals, A-Z list of databases, course reserves, library web pages, and the institutional repository.

Minor maintenance in 360 Core continued through 2013 but the SFU Library was still not actively applying updates. Changes were made in 360 Core when errors were reported, often by patrons or other librarians. During a meeting with a developer from Serials Solutions, the SFU Library learned that each database in 360 Core had a unique three-digit code and later in 2013,

that unique code was made public in the Serials Solutions Client Center where libraries managed their 360 Core knowledgebase. By 2014, SFU Library wanted to investigate an automated solution for updating our holdings in 360 Core using this unique code. An SFU Library Systems Analyst wrote a program that could take a 360 Core list and match it against the corresponding CUFTS resource, update the status of the title and update the relevant dates of coverage. The program required the addition of a new field at the CUFTS resource level, which was named *proquest code*, and for that field to be populated with the relevant 360 Core code. There was an initial investment of time to first activate relevant resources in 360 Core, even if no titles were selected, and then to add the code to the relevant CUFTS managed target. A successful test was completed at the end of 2014, and the plan is to update the holdings using this method four times per year. At the time of this presentation, three updates had been completed with a fourth scheduled for June 2015.

Given the size of SFU Library's electronic journal collection, manual maintenance of two KBs was simply not sustainable. While it is tempting for the SFU Library to migrate its KB and link resolver service to Serials Solutions entirely to avoid this dual KB maintenance situation, as other Summon libraries have done, the SFU Library is still committed to supporting the CUFTS system for itself and for its library clients who use the service. Indeed, the SFU Library is extremely lucky to be able to leverage the expertise of our Systems Analyst (Todd Holbrook), who is also the CUFTS programmer. Holbrook did all of the intellectual work in making this partially automated solution happen. As a result, the Electronic Resources Librarian does not have to maintain two large KBs manually.

At Simon Fraser University Library, despite neglecting the 360 Core knowledgebase for more than four years, there had been relatively few reports of false hits and broken links with

Summon in place as a discovery service. The suspicion is that patrons might not take the time to report broken links or lost access to full-text and instead choose to simply move on to the next available result. There appears to be enough content in Summon with working full-text links that users find what they need.

CASE STUDY TWO: ACADIA UNIVERSITY

Overview

Acadia University is a small, rural, mainly residential university in Wolfville, Nova Scotia on the east coast of Canada. The university population of 3,600 full-time students approximately doubles the town's population while school is in session. Acadia's single campus offers undergraduate and graduate programs in four faculties: Arts, Professional Studies (including Education, Business and Kinesiology), Pure and Applied Sciences, and a Divinity/Theology School.

Acadia Collections and Systems

The acquisition's budget for the 2014/2015 fiscal year was just under \$800,000 Canadian dollars. The library has received reduced or status quo budgets for the past eight years and has spent an estimated 90 per cent of its budget on electronic resources. The library has access to more than 62,000 electronic journals, 140 databases, and 200,000 e-books. These statistics include open access and selected free resources.

The Acadia Library recently moved from a single library with a SirsiDynix system to a shared Ex Libris Aleph ILS as part of our inclusion in the Novanet Library Consortium. Shortly after the catalogue migration, Acadia also migrated discovery layers. Both Acadia and the Novanet Consortium had WorldCat Local as their discovery layer since 2009. In January 2015,

all Novanet libraries moved to Primo (Ex Libris), including Acadia. The Acadia library uses EZproxy for off-campus authentication and CUFTS/GODOT for ERM and link resolving.

Primo at Acadia and Novanet

In selecting a new discovery service, all Novanet libraries participated in the evaluation of four systems: WorldCat Discovery, Summon, EDS, and Primo. Probable reasons for switching from OCLC to ExLibris' Primo were the frustrations of federated searching and the difficulties of known item searching in WorldCat Local. It was hoped that next generation discovery would fix these problems. An additional rationale for selecting Primo was the promise of interoperability.

Within a consortium setting, managing KBs and troubleshooting becomes even more complicated. In Novanet, each individual library values their own identities, stemming from long traditions and history within the region. Each institution customizes its own instance of Primo with its university or library branding. The consortium works through committees and subcommittees to provide common elements throughout the discovery service. Instruction and support materials are created and shared. Common-to-all participating institutions, open access and free resources are selected at the consortia level within the Primo Central Index and are inherited by the individual libraries. Then, each library is able to select additional unique resources for its own instance of Primo.

A Novanet subcommittee assisted member institutions in the original setup of each library's SFX link resolver instance. SFX was licensed in conjunction with Primo; and Novanet Libraries were expected to use it. However, individual libraries are responsible for customizing its full text holdings. Depending on staffing and technical expertise at individual institutions, some libraries can not only change the branding and look, but also the function of their discovery

service. This is where you see the push and pull of the collective versus the individual institution.

Workflow/Solutions at Acadia

Implementation of Primo began in the fall of 2014 with access to a sandbox site for individual libraries in November and a public launch in January 2015. The looming cancellation of WorldCat Local was the main driver of this quick process. The implementation of Primo included setup and implementation of a new knowledgebase and link resolver service. All other members of the consortium chose to implement SFX as their one and only knowledgebase and link resolver. Acadia opted to maintain both SFX and CUFTS. There was a great deal of pressure to stop using CUFTS and support only SFX as the rest of the libraries within the consortium did. However there were a number of factors that contributed to the decision to maintain both systems. Acadia had already implemented all of the reSearcher components within CUFTS and relied heavily on them for managing electronic resources. It was imperative that the library maintained the integrity of workflows and kept what worked well for both staff and patrons.

The solution for Acadia was to continue to use the reSearcher suite for CUFTS, but to implement and maintain the SFX KB and resolver for Primo only. There is a great deal of complexity in maintaining two KBs. It is difficult, if not impossible, to keep both equally up to date. Acadia focuses more effort on CUFTS and only updates SFX when problems are discovered and reported. The increased workload has been problematic, however it is hoped that the Acadia Library will experiment with replacing SFX with CUFTS within Primo in the upcoming year. There is one advantage of having access to both KBs and that is that the ability to check and compare lists that allows for better troubleshooting which can be communicated to the consortium.

CASE STUDY THREE: CAPILANO UNIVERSITY

Overview

Capilano University is a small, teaching-focused public university in North Vancouver B.C., Canada. Capilano serves approximately 7,500 students (5,400 full-time equivalent) in credit programs and an additional 7,000 in non-credit programs. Founded in the late 1960s as a college, Capilano was granted university status in 2008. Capilano offers about a dozen bachelor degree programs, as well as select post-baccalaureate programs. Its main campus is in North Vancouver, with regional campuses in two other municipalities, serving the Howe Sound and Sunshine coast. Capilano is generally considered a single site for licensing purposes.

Capilano Collections and Systems

For fiscal 2014/15 the collection budget totaled \$336,400 Canadian dollars. The library spent approximately 71 per cent of its collections budget on electronic resources. The library provides access to approximately 61,000 serial titles and 150 databases/resources, including open access resources. Additionally, the library provides access to approximately 166,300 e-books and 118,890 streaming media titles⁴. The library's ILS is Sierra from Innovative Interfaces Inc. Innovative's Web Access Management provides off-campus authentication and CUFTS/GODOT is used for ERM and link resolving. The library implemented EBSCO Discovery Service in January 2014.

EBSCO Discovery Service (EDS) at Capilano

A LibQUAL+® survey in 2013 revealed challenges Capilano Library users faced in finding resources, and resource ease of use. Based on users' needs and growing expectations regarding information discoverability, the library began to investigate discovery services. The field was

shortened to EBSCO, in part due to librarians' previous experiences with the company, some librarian's familiarity with EDS, as well as pricing considerations and a pending consortia offer. Moreover, the library's use of Innovative Interfaces as its ILS opened the opportunity to investigate the EDS with Encore Duet, using EDS's central index with Innovative's Encore discovery interface.

In October 2013, usability testing was conducted with students and faculty members, comparing EDS with Encore against the EDS native interface. Librarians and library staff also participated in the testing. In short, the EDS native interface was the preferred product. Soon after launching a trial of EDS – branded Discovery – a further survey was conducted with users to investigate whether they would use Discovery and to gather user feedback. Those surveyed provided positive responses to the overall impression of the product, ease of use, and likelihood of use. Therefore, Discovery officially become part of Capilano Library's toolkit in January 2014.

Workflow/Solutions at Capilano

Despite interest in EDS, Capilano Library decided not to participate in the full suite of EBSCO resources, specifically EBSCO's link resolver (Linksource) and A-Z journal list (EBSCO A-to-Z). The library does use EBSCO as its serials agent, and manages its serial subscriptions within the Ebsconet interface. Capilano Library is a long-time user of the CUFTS Journal Database (CJDB) and link resolver (GODOT) and in 2012 was getting up to speed with populating and fully using CUFTS ERM and its public A-Z: CUFTS Resource Database (CRDB). The library is happy with the CUFTS suite and has a desire to retain diversity in electronic resource management tools. This is not an issue for EDS, as it has the ability to work with other knowledgebases and link resolvers.

In short, EDS creates what it calls a local collection from a library's A-Z holdings. This local collection is applied to the library's instance of EDS, so it knows what content is available to users. Local collections can be mapped to a link resolver or (in EDS parlance) a CustomLink. With a third-party knowledgebase, libraries need to export their holdings to EDS on a regular schedule and apply the appropriate links. For CUFTS libraries, individual title lists (by publisher/platform) would be exported and uploaded to EBSCO's FTP site, or manually loaded into EDS. When Capilano began to implement EDS, the library looked for a way to mitigate this workload and a discussion began to see if an automated solution was available. With feedback and suggestions from the SFU CUFTS programmer (Todd Holbrook), the final outcome saw EBSCO write a script that regularly pulls Capilano library holdings from the Google Scholar XML file that CUFTS makes available.

The EDS processing run occurs twice per week, and from these holdings files, a local collection is created in EBSCOadmin. At the time of implementation, a CustomLink was created and connected to the CUFTS local collection to determine whether to display a citation or not (additionally, a library could choose to create individual custom links for a publisher collection and filter by the local collection). This custom link did not display – it was used solely to identify and correctly display full text citations. The library's regular link resolver, GODOT, was set to display on all records (if another full text CustomLink was not assigned).

Soon, the library decided to adjust the CustomLink assigned to our CUFTS holdings, to give our users a better indication that the item was available. Capilano Library's GODOT icon states *Find Full Text*. Anecdotally, librarians noticed students skipped over these items; saying that they were not sure if that meant the item was available. Librarians surmised that this was due

to students' past experience that clicking on the link resolver occasionally resulted in an interlibrary loan request page rather than the full text.

With the assistance of EBSCO, the library created a new GODOT CustomLink that displays on holdings from the CUFTS local collection, and applied a different icon that states *Connect to Full Text*, a visual indicator to the user that the item is available. The link resolver is still used to locate the item. The original GODOT CustomLink (Find Full Text) still displays on citations of items not in the library's holdings, which would be exposed to users if the *Available in Library Collection* limiter was deselected.

With the automatic import and full-text identification of the library's holdings, combined with EDS's Smartlinks (linked records to full-text available in subscribed EBSCO databases), SmartLinks+ (links to full-text available via EBSCOnet electronic journals), and EDS partner databases and CustomLinks, the Library is currently not managing any individual title lists from subscribed resources within EDS.

At Capilano University Library, the benefit of the current process is an ease on workload and time required to ensure holdings are up to date. The drawback is that many full text connections are made via the link resolver, which is a multi-click process for users, versus a single click of a CustomLink or a SmartLink. Attention still needs to be given to ensure that holdings are being accurately represented and all links continue to work. Of course, the partner databases and linking within EDS still needs to be managed. Additionally, further work needs to be done to identify additional CustomLinks that could be implemented to provide users 'one-click' access.

CHALLENGES AND OBSERVATIONS

Staffing and Workload

SFU, Acadia, and Capilano face staffing and workload issues related to the emergence of electronic resources. At all three institutions, there is one librarian responsible for overseeing the complete lifecycle of electronic resources. At Acadia and Capilano, these librarians also have liaison responsibilities. All three libraries are looking for ways to mitigate workload, reduce redundancies so that the electronic resource librarians can more readily attend to issues that are time sensitive. Compounding the problem is the complex nature of electronic resource management, which often requires advanced critical thinking, analysis and problem solving abilities.⁵ There are opportunities for additional library staff to assist in electronic resource management, but training time and resources is limited at each institution.

Troubleshooting

Prior to having an ERM, an electronic resources librarian would spend a great deal of time tracking down contacts, administrating usernames and passwords, updating websites, and gathering statistics. It seems that work has been replaced with troubleshooting discovery issues. With a diversity of systems in place, troubleshooting broken links and/or other technical errors can be a complex endeavour. Errors can originate in multiple places. There could be inaccurate metadata in the discovery service citation, the knowledgebase metadata or even in the DOI/CrossRef registry. Time is often consumed with determining the original source of a given error. In addition to bad data, there are issues around parsing and communication between systems, errors in the selection of targets within the knowledgebase, and missing content from publishers or vendors.

Managing Collections Outside of KBs and Web Scale Discovery Tools

Another challenge for libraries includes the management of other electronic, non-journal collections, such as streaming audio and video, e-books and digital collections. Because SFU is not using Serials Solutions' 360 Link service for a link resolver, the library cannot activate these types of things in the 360 Core KB because it caused linking problems from the Summon interface. So SFU continues to load MARC records for e-books, streaming audio and video and other digital collections to the catalogue. In turn, these records are sent with the daily catalogue FTP update to Summon.

Similarly, at Capilano Library, all digital collections that have been traditionally discovered via MARC records (e-books and streaming videos) are loaded in the catalogue first and then sent to EDS, rather than managing access and discoverability of the collections by turning on partner databases when available in EDS. There are a couple of exceptions, two streaming audio collections have been exposed as a test case in EDS, but not in the catalogue. This decision is due to an effort to avoid redundant maintenance of holdings.

While aware of a growing trend to replace library OPACS with a web scale discovery interface, SFU, Acadia and Capilano university libraries are not yet ready to replace their library catalogue as the primary inventory of all the library's collections. SFU uses the OPAC to display relevant license information, such as simultaneous user limits on individual e-books and other materials at the title level through the MARC 856 link text so that instructors know which e-books might be suitable for course readings and/or course reserves. SFU library has many single user licenses for e-books and a number of collections where titles can disappear (Ebrary Academic Complete, Books24x7 and Safari Books Online). The Summon interface cannot accommodate such institution-specific details. So for now, the SFU Library continues to use the traditional OPAC. At Capilano Library it is likely that the current process of loading records to

Discovery will continue until a decision is made regarding the use of the OPAC and an analysis of the metadata offered by the EDS partner databases is conducted.

Managing Print Collections

Another challenge posed is the treatment of physical (print and microform/film) periodicals in web scale discovery tools. Web scale discovery focuses on digital resources; therefore print journal holdings can be forgotten. With the CUFTS system, print holdings in MARC format can be uploaded as a separate file in order to include print holdings in the A-Z public list (the CJDB). However, print holdings are not exposed in the CUFTS' Google Scholar XML export and are not included in Capilano University's EDS service. Therefore, additional effort needs to be made to expose print holdings for findability in a discovery service. In EDS, print holdings would require a separate export, a creation of a custom collection, and a Customlink.

SUMMARY

Simon Fraser, Acadia, and Capilano University libraries use the SFU reSearcher suite of open source software, CUFTS, which includes an electronic journals knowledgebase, a link resolver, a public A-Z listing for journals, an electronic resources management system (ERM), and a public A-Z listing for databases. However, each library uses a different web scale discovery system, which leads to a variety of different strategies to manage and facilitate connections to each libraries' electronic resources. Despite the challenges, there are benefits to maintaining a diversity in electronic resource management tools. Not "all eggs in a single basket" provides libraries with flexible and diverse systems while at the same time contributes to healthy competition within the marketplace. The original presentation slides may be viewed at:

<http://www.slideshare.net/NASIG/managing-discovery-and-linking-services>.

NOTES

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