

# **Simplifying resource discovery and access in academic libraries: implementing and evaluating Summon at Huddersfield and Northumbria Universities**

*Report written as part of a project in the JISC Enhancing Library management systems theme – Theme A Use of new resource discovery interfaces*

<http://library.hud.ac.uk/blogs/summon4hn/>

## **1. Introduction – the challenge**

Facilitating information discovery and maximising value for money from library materials is a key driver for academic libraries, which spend substantial sums of money on journal, database and book purchasing. Users are confused by the complexity of our collections and the multiple platforms to access them and are reluctant to spend time learning about individual resources and how to use them - comparing this unfavourably to popular and intuitive search engines like Google. As a consequence the library may be seen as too complicated and time consuming and many of our most valuable resources remain undiscovered and underused.

Federated search tools were the first commercial products to address this problem. They work by using a single search box to interrogate multiple databases (including Library catalogues) and journal platforms. While going some way to address the problem, many users complained that they were still relatively slow, clunky and complicated to use compared to Google or Google Scholar.

The emergence of web-scale discovery services in 2009 promised to deal with some of these problems. By harvesting and indexing metadata direct from publishers and local library collections into a single index they facilitate resource discovery and access to multiple library collections (whether in print or electronic form) via a single search box. Users no longer have to negotiate a number of separate platforms to find different types of information and because the data is held in a single unified index searching is fast and easy.

In 2009 both Huddersfield and Northumbria Universities purchased Serials Solutions Summon. This case study report describes the selection, implementation and testing of Summon at both Universities drawing out common themes as well as differences; there are suggestions for those who intend to implement Summon in the future and some suggestions for future development.

## **2. Background – Huddersfield and Northumbria**

Huddersfield and Northumbria are similar institutions: both are large UK post 1992 universities primarily learning and teaching institutions (23,000 and 24,000 FTE students respectively) with specialist and increasing areas of research excellence. Both are members of the NEYAL

(North, East and Yorkshire Academic Libraries) purchasing consortium and have a history of working together through its books and journals purchasing groups.

At Huddersfield the Library is part of a converged Computing and Library Service while Northumbria Library and Learning Services is separate from the University IT department. While both University Libraries have been successful in delivering innovative and user centric services, Huddersfield have a dedicated Library Systems Manager with the technical expertise to customise systems to local requirements. At Northumbria, the policy has been to outsource and develop computer systems with 3<sup>rd</sup> party suppliers rather than in house.

### **3. Selection**

#### **Huddersfield**

At Huddersfield a project group was established to examine the current arrangements for the provision of e-resources and suggest recommendations for the future. One of the tasks of the project team was to invite suppliers in to discuss products in order to understand the different offerings within the market place. The project team evaluated supplier products and provided recommendations to the Library Management Group for them to consider.

The project team identified four main 'vision objectives' for the future system. These criteria were used to evaluate supplier offerings.

- First class search engine
- Provide a 'one stop shop' for all electronic resources
- Greater interoperability and flexibility
- More efficient management and administration

As a result it was agreed to conduct a restricted EU tender for a provider of a library discovery service of pre-harvested content. The contract was awarded to Serials Solutions.

#### **Northumbria**

Northumbria had been using WebFeat federated search alongside Serials Solutions electronic resources management products (Knowledge base, OpenURL link resolver, ERM) since 2006. In February 2008 WebFeat was purchased by Proquest / Serials Solutions whose stated intention was to migrate WebFeat and Serials Solutions 360 Search to a single federated search product. Northumbria therefore had to make the decision to either migrate to the new Serials Solutions federated search or look for an alternative search and discovery solution.

With the emergence of webscale discovery services, suppliers were invited to demonstrate their systems during early 2009. After analysing each of these Northumbria selected Serials Solutions Summon for four main reasons:

- breadth of content

- ease of use and the subsequent improvement to the student search experience
- hosted solution operated and fully supported by 3<sup>rd</sup> party supplier
- integration with existing Serials Solutions products, which we were happy with
- value for money pricing - Serials Solutions were keen to get some early adopters in the UK and offered an attractive upgrade path from WebFeat federated search to Summon.

#### 4. Implementation

Serials Solutions aim to have each Library's instance of Summon configured within six weeks once all the configuration information and local data have been supplied to them.

Implementation started with a telephone conference call with Serials Solutions outlining the steps needed to deliver the initial system. These were:

- Supply of a full export of local catalogue metadata in MARC21 format
- Completion of a MARC mapping document to map fields from the Talis LMS (Northumbria) and Horizon (Huddersfield) to the Summon index
- Supply of configuration data

Subsequent configuration steps to be completed that were not essential for initial set up of the instance were:

- Setting up a process to send regular exports of record updates from the LMS to the Serials Solutions Summon server
- Updating local electronic resource holdings within the Serials Solutions Knowledgebase, to include all full-text and non full-text electronic resources
- Including other library collections e.g. research repository and other local repositories to be included in the Summon instance

Other issues considered at implementation were:

- Summon coverage
- Access to native interfaces & subject guides to resources
- Authentication
- Support issues

#### ***Supply of a full export of local catalogue metadata in MARC21 format***

Although Serials Solutions did not provide any specific advice about this, it may be necessary to review the quality of your bibliographic records and some of the practices you have developed before supplying a full export of your metadata.

At Huddersfield it was necessary to separate out print and e book records which had previously been catalogued under a single record before loading into Summon.

Following the MARC21 upload it also became apparent that there had been some major inconsistencies in cataloguing practices over the years. One example was music scores, which after the initial upload failed to show in Summon. In addition, many DVDs showed as books. Global edits rectified this situation when it was found that the errors were in the MARC header fields. However, these issues were of enough concern for the Implementation Group to put back the planned beta launch from January to March 2010.

At Northumbria there have always been separate records for print and electronic material and both were exported to Summon. Subsequently some institutions have been advised not to supply electronic resource records with their export and updates. This does not seem to have been an issue for Northumbria as these catalogue records link to the home pages of electronic journal titles and databases. This has so far not created duplication of records or confusion amongst users.

At Northumbria the work to extract the catalogue records was done by the LMS supplier (Talis). Although initial discussions took place in January 2010 to outline requirements there was a four week delay before the full export of catalogue metadata was supplied. Northumbria were the first Talis library to implement Summon and Talis were keen to scope out all aspects of the work (including scripts for updates and deletions and handling availability data) before providing the export. Once Serials Solutions received the full catalogue export they developed Northumbria's Summon instance within the six week timescale that they had promised.

However the four week delay with the catalogue export led to a substantial slippage which impacted significantly on other aspects of the project especially the beta launch and timing of focus groups.

### ***Completion of MARC mapping document to map fields from the LMS to the Summon index***

Serials Solutions supply a MARC mapping spreadsheet so that each Library has some control over how the library catalogue data is indexed and displayed in Summon. Huddersfield used the default mappings but Northumbria applied more customisation. Not much guidance was provided about this despite requests for this; and judging from queries on the Summon listserv this continues to be an issue.

Due to confusion about the MARC mapping the display of titles from Northumbria's library catalogue was duplicated and after further discussion with Serials Solutions the default MARC mappings were used instead.

It would have been helpful to experiment with different mapping configurations on a test site, or at least to have been given more assistance. Northumbria are still experiencing some MARC mapping issues, although these are due to the introduction by Serials Solutions of additional facets for genre and time period for local catalogue data.

It is worth spending some time getting this right first time because the time it can take to re-index and therefore rectify MARC mapping errors can be quite substantial and until it is put right the catalogue data may look odd.

### ***Supply of configuration data***

Both universities were asked to supply the following configuration data:

- Library web site URL
- OPAC Record URL - the base URL for a direct link to a record page in the OPAC - it included all of the details except for the record ID.
- Summon URL Codename - based on the institution domain name
- Summon Web Site Title
- Details of the institution's Link Resolver Product
- Link Resolver Base URL
- Authentication ProxyProxy URL
- IP Range
- Feedback email address – the address to which feedback is delivered through the link on the Summon interface
- Image files as follows:

Small Logo (183x32 gif format) with the filename: logo-183x32.gif

Large Logo (312x53 gif format) with the filename: logo-312x53.gif

Favicon Logo (16x16 ico) with the filename: favicon.ico

**Customisation** of the Summon interface is fairly limited at present and adding institutional logos is the only element that can be changed on the main search pages. Both Huddersfield (<http://library.hud.ac.uk/summon/>) and Northumbria (<http://northumbria.ac.uk/nora>) have developed their own Summon web pages which are hosted on institutional servers. This is currently the only way to adapt the initial search page.

Huddersfield has retained the Summon branding and colours as it was felt that this differentiated the new service from MetaLib, the federated search tool, which had been identified as a source of student dissatisfaction in user surveys.

Northumbria has re-branded the product as NORA Power Search because of the well-established identity of their federated search service NORA, and has aligned its design with the new library catalogue in order to make them easily identifiable as a suite of library products.

### ***Setting up a process to send regular exports of record updates from the LMS to the Serials Solutions Summon server***

At Huddersfield all print books and journal records were exported into Summon fairly easily. In-house scripts were developed to upload deletions, changed records and new records on a daily

basis but the process did not run as smoothly as planned. There were initial communication issues with deletions, which took some time to be processed, although this is now working well, with updates from the catalogue to Summon running four times a day.

The code for these scripts is available from the Project Code section of the JISC project blog <http://library.hud.ac.uk/blogs/summon4hn/>. These may be of interest to Horizon sites:

- updating Summon with MARC record additions, updates and deletions from the Horizon LMS
- providing live availability information from Horizon without resorting to screen-scraping the OPAC

This might be of interest to 360 Link sites in general:

- customizing 360 Link using jQuery

E-books, e-journals, “fast adds”, temporary Inter Library Loan records and records that were on order or unavailable in the upload were not included in the upload.

At Northumbria the implementation of a new version of the library catalogue (Talis Prism3) provided the facility for setting up a regular export of catalogue record updates to the Summon server.

The new catalogue is hosted externally by Talis. Batches of files containing new, edited and deleted / suppressed records are sent on a regular basis to an external server. Talis used the existing functionality within the LMS (the MARCgrabber and delta update process), that generates files of the records listed above – and sends them to the Talis server, to do the same for catalogue exports to the Summon server. A script takes the Prism 3 delta files and ftps them to Summon. The files are placed into the appropriate Summon directories depending on whether the record needs to be added to or removed from the instance. This facility is now available to all Talis customers under their Talis Connect banner, although it is believed there may be a charge for this service.

### ***Timeliness of updates***

There have been some concerns about how quickly update files are then uploaded into the client’s Summon index. Serials Solutions stated timescale is between 48 to 72 hours. Early adopters of Summon reported backlogs of these files which impacted on the currency of data in Summon. Both Huddersfield and Northumbria have also experienced this, particularly after a recent re-indexing of the whole Summon index. All updates sent by each institution were then reloaded into their Summon instance. The sheer volume of these led to delays of over a week between sending an update and the data appearing on Summon. This turnaround time has improved as the backlog has been cleared. Again these delays may have been due to the sheer scale of the work involved, which impacted on Serials Solutions ability to handle the data from a large number (over 100) of institutions.

### ***Updating local electronic resource holdings, to include all full-text and non full-text electronic resources within the Serials Solutions Knowledgebase***

Summon uses Serials Solutions 360 Core Knowledgebase to generate holdings information. As existing customers Northumbria's full-text e-resources were already included in the knowledgebase; abstracting and indexing databases were also added to ensure that this metadata was included in Summon.

At Huddersfield the original plan was to use 360 Core to link to the SFX link resolver until switching to 360 in July 2010. The aim of this approach was to minimise disruption during the academic year. This would also give the journals team the opportunity to transfer subscriptions to a new agent and then change to the new link resolver when the transfer was complete. However, the subscription agent change and migration of data from SFX to 360 Link went very smoothly and the majority of changes were completed very quickly. The switch also led to an increase from 22,000 journal titles tracked in SFX to over 50,000 in 360 Link.

Since the switch there have been a number of customisations to the standard 360 interface i.e.

- addition of an RSS feed next to the journal title using ticTOCs
- a Summon search box has been introduced which enables users to search for article level content within the journal title at this stage.
- Print holdings and aggregated content are always displayed at the bottom of the list of links.
- Finally, a basic in-house recommender service, using historical MetaLib/SFX data and 360 data was also developed.

### ***Including other Library resources***

The process for including repository data depends on whether your repository supports the OAI-PMH protocol. If so Serials Solutions can automatically harvest this content for Summon.

At Huddersfield the University Repository (<http://eprints.hud.ac.uk/>) includes journal articles, book chapters, working papers and reports and non-textual material such as art. Loading data into Summon was relatively seamless.

However, there are ongoing issues with the display of Repository items within Summon. Items that do not contain full text are included as items in the library's collection resulting in frustration for users. This should be simple for Serials Solutions to correct as the OAI-PMH data should indicate whether there is full text or not. The full text should appear in Huddersfield's collection, and Repository metadata with no full text should appear when the 'add results beyond your library's collection' box is ticked.

Other repositories will be added to Summon once these issues are resolved, making a large amount of open access material available to Summon subscribers.

Digital off-air recordings replaced the traditional video/DVD off-air recordings as part of the Educational Recordings Agency (ERA) licence in the library collection some time ago. These items are now fully searchable within Summon, although they are password protected and not available to other Summon customers. It is hoped to add streaming videos of lectures in the near future.

At Northumbria the Biomed Open Repository will be included in Summon from January 2011.

### ***Summon coverage- subject collections and direct links to native resources***

Although Serials Solutions have negotiated access to metadata from a substantial number of publishers and continue to add further content regularly, there still remains some content which is not included in the Summon index. Partly as a result of this lack of comprehensive coverage it is still necessary to provide access to the native interfaces of databases; but both Universities also wanted to include access to native interfaces as an alternative for those who preferred to access databases this way.

### ***Huddersfield wiki***

The majority of searches in MetaLib were done by browsing the subject lists and then selecting an appropriate database to search rather than performing a federated search. Although this approach was not available within Summon it was expected that a significant number of users would still expect to see this option. In addition, the library subscribed to a number of expensive resources that were not pre-harvested by Summon but needed to remain discoverable.

An electronic wiki was already in use to provide access to help guides was rebranded to point users to the relevant databases by subject and alphabetical list ([http://library.hud.ac.uk/wiki/Main\\_Page](http://library.hud.ac.uk/wiki/Main_Page)).

Dummy MARC records were also produced for databases to enable users to search for a database within Summon. At the same time Serials Solutions launched their Database recommender service, which uses keywords and data in the knowledge base to point users to subject specific databases.

### ***Northumbria LibGuides software***

At Northumbria the NORA service had also acted as a portal to access the native interfaces of electronic resources, both in subject collections and also in a comprehensive A to Z title list. It was considered important to replace this service to give users real choices in how they accessed the resources they wanted and Northumbria implemented the web-based LibGuides service from Springshare to do this. This solution was relatively inexpensive and easy to customise to reflect the new Summon (NORA) branding and web page design. In addition SpringShare work in partnership with Serials Solutions to make the creation of an A to Z list of resources simple via the automatic export of the Serials Solutions Knowledgebase data into the service. These automatic links can then be reused within the subject collections.

Links to the LibGuides A to Z list of resources and subject collections of resources were made available on the Summon (NORA) web page in order to bring access to all the electronic resources together in one place.

## **Authentication**

No login or authentication is required to search Summon so in theory anyone (whether a member of the University or not) can use the system and find references and results that reflect the holdings in Huddersfield or Northumbria collections. This approach was favoured by Serials Solutions and can act as a “shop window” for potential customers.

This works well when no login is required to access full text resources, i.e. when on campus, or off-campus using a proxy server or equivalent. However some resources always require authentication, whether on or off-campus, and some users are unable to use proxy servers. Access to resources can then become confusing as users have to negotiate often confusing authentication links provided by publisher platforms.

To help address this Serials Solutions have introduced an “authentication banner” for Summon. This appears at the top of the Summon search screen and allows institutions with a proxy server service to login before beginning their search rather than logging in to the individual resources at the point of trying to access full text.

At Huddersfield, the authentication banner is integrated into EZProxy, to provide seamless access to e-resources for off-campus users. One of the most common complaints prior to implementing Summon was the difficulty in accessing journal articles from off-campus, so most resources are now pushed through EZProxy (rather than Athens or Shibboleth).

At Northumbria access to resources is either via Shibboleth authentication or (off campus ) via the University’s desktop virtualisation service “desktopAnywhere” which is powered by Citrix. Northumbria has not been able to enable the authentication banner for their Summon instance as it is not compatible with either Shibboleth or the Citrix service. Serials Solutions have advised that the “Shibbolization” of the OpenURL resolver 360 Link may help to simplify authentication and improve this aspect of the service for users. Serials Solutions intend to integrate the Serials Solutions KnowledgeBase with a new product (360 Access Control) in December 2010. This aims to simplify the user experience by providing a single sign-on across all content providers. This may also help users overcome barriers when authenticating to resources.

## ***Serials Solutions support and documentation***

The support from Serials Solutions during the initial set up period was good. They were fast to respond to questions although we sometimes felt that we did not receive as much detailed guidance that we needed, e.g. in relation to MARC mapping, which led to further work.

Once the Summon instance had been delivered all questions were then routed through the Serials Solutions Client Centre rather than a specific account manager. Sometimes the time taken to get responses to questions through the Client Centre delayed progress. This may have been exacerbated by the fact that the support team for Summon is based in the US and inevitable time differences may hold up the response time – however the time difference can also work in favour of European customers. It was felt that although the initial Summon instance had been delivered this was not the end of the implementation phase - but it seemed to be considered as such by the company. As Summon is such a new product to be left to figure things out with slow support was frustrating at times. This again may have been due to the fact that Serials Solutions were setting up a significant number of new customers at the same time and had to deliver these according to the stated time period of six weeks from receipt of configuration data.

Another issue was the lack of detailed documentation, especially in relation to the basic tasks necessary for implementation; e.g. the information provided about the updates and deletion process was very limited, which again slowed progress. There also seemed to be a reluctance to explain some areas fully, especially the detail of how Summon actually operates. This may have been due to commercial sensitivity but also led to some difficulties answering staff queries about how the system worked and how to get the best out of it.

It is important to note that Serials Solutions took all these issues on board and have been very receptive to constructive criticism and enhancement suggestions. After initial concerns excellent communication channels have been established via the user group, listserv and through personal contact. Following implementation there have been no major issues and no downtime.

## **5. Beta launch**

At both Huddersfield and Northumbria the introduction of federated search had been heavily marketed with a high profile launch. However with Summon both institutions chose to roll out a soft launch or beta test phase first. During this period federated search continued to run in parallel with Summon. This soft launch allowed both universities to gather feedback on the system so that further refinements could be made before withdrawing federated search and formally launching Summon at the beginning of the new academic year in September 2010.

## **6. Feedback and usability testing**

Feedback was gathered in a number of ways from staff and students through formal training sessions, demos and anecdotal feedback. Both Universities worked together to devise a similar online survey and a common approach to running focus group sessions.

### ***Online survey***

At Huddersfield the survey ran from March to July 2010 and a monthly prize of free print quota was used to encourage users to participate. The survey ran again from September 2010 and will close in July 2011 in order to get an accurate picture of the first year of operation.

The survey at Northumbria ran from June 2010 and stayed open until the end of October 2010 so that feedback could be gathered from new as well as returning students. Users who participated in the survey were encouraged to leave their details to be entered into a draw to win a iPod Classic which was kindly donated by Serials Solutions.

Users at both institutions were asked to provide their contact details if they were willing take part in more detailed focus groups

### ***Respondents***

There were 102 responses to the Huddersfield survey and 523 to Northumbria's. The difference in numbers was probably due to the length of time the survey was open. However the percentage breakdown of respondents by type and School were very similar, as was the feedback on the service.

Over half of the respondents were undergraduates (63% at Huddersfield and 55% at Northumbria ); the next largest group was taught postgraduates (19% and 26% respectively), followed by research postgraduates (9% and 7% respectively). The rest were made up of academic staff (6% and 5%), support staff, visitors and other groups of users.

In subject disciplines, the largest number of respondents were from Health (over 30%), followed by computing & engineering (CEIS) (over 12%), business and law. There was a relatively low percentage in both surveys of respondents in arts and design subject areas (3%).

### ***Feedback survey results***

#### **Ease of use**

91% (100% at Northumbria, with 88% saying very easy) reported that the Summon screens were easy to understand and 89% (93%) found the icons easy to use. At both universities there were many comments about preferring Summon to the previous federated search for its speed and ease of use.

The majority of those who left a comment about ease of use felt that they would not require any help in using Summon (63% at Huddersfield, 76% at Northumbria). Other comments indicated that only a brief run through was needed. This result was very encouraging, given that a simple, intuitive search interface was one of the key criteria for selecting Summon.

Of the low percentage of people who would have liked more help, the majority asked for help screens or online user guides.

There were some library users who wanted to know which databases the results were from, e.g.

"I wasn't sure what databases I was searching in, but after completing a search I realised it showed anything relevant'. (Huddersfield)

"couldn't see how to access Westlaw, Nexis, etc" (Northumbria )

The confusion over the difference between Summon as a single search of multiple databases and searching individual databases was identified at an early stage and continues to be an issue at both Universities.

Some of the issues at Northumbria referred to problems authenticating, and in many cases this was because students were still using Athens passwords after the switchover to Shibboleth had taken place in May 2010.

### **Refining searches**

45% (65% at Northumbria) of users refined their searches, mostly by using the facet options on the left of the screen. The comments imply that those that did, found it an easy process; one user commented that they used '+' and '-' as they did on Google, while others used Boolean operators to refine the search.

Most of those who didn't choose to refine their search in this way said it was because they had found what they wanted without having to do so; there were one or two comments that they didn't know that they could do this.

"I had 7,000 results that I couldn't narrow down which I found quite annoying." (Huddersfield)

### **Success in finding references**

77% at Huddersfield and 85% at Northumbria said they were successful in finding what they wanted; and some comments indicated that they found more than they expected:

"I looked at an area I am working on for my MSc so I already had an idea what I might find based on previous research. I was very impressed that Summon found some relevant articles from the last few years that I had not seen before. " (Northumbria)

Some were more pragmatic:

"some useful, some not so useful but that's the way it is with everything; it's the same with a Google search and Metalib search, any search. The more you refine it, the more relevant your results will be." (Huddersfield)

Different users had different expectations and seem to be puzzled by the one stop search concept:

“it seems rather odd to request “limit to articles from scholarly publications” .... if something has a non-scholarly source we can use other tools (e.g Google, newspaper CDRoms) to find them” (Northumbria)

However, other users were very happy with the one stop search:

“You’ve not go as many fiddly bits to do; you just type in what you want. It’s almost like Google Scholar, so I like it for that.” (Huddersfield)

### **Layout of results**

Although 89% (88% at Northumbria) stated the layout of results were clear, citing the facets and the ability to mouse-over the title to view the abstract as particularly useful, a number of comments were received on the difficulty of accessing the full text even though the icon identifying the link to full text was showing. At Huddersfield this was due to teething troubles with the links via the Serials Solutions knowledge base and not down to any issues with Summon itself and was rectified early on in the beta phase.

At Northumbria some students were confused by the log in page presented by some publishers’ platforms, and tried to use their previous Athens login rather than Shibboleth; again an issue which is not a problem with Summon itself. However it is almost inevitable that not all links will work perfectly all the time and it can be a time consuming job to investigate individual link failures once they are reported.

Negative comments related to too many results and not being able to distinguish between different types of results e.g. article, book, review article, newspaper article. Some found it hard to identify the source of the material; these comments related both to not knowing which specific databases were being searched or the clarity of the journal title / citation display on the Summon page.

### **Relevance of results**

82% (88% at Northumbria) of users agreed that results were relevant to their research topic. 77% (85% at Northumbria) said they found what they were looking for.

There were many positive comments about the relevance of results, with an acknowledgement that the search strategy had to be good to begin with and that results may have to be refined using the facets and filters provided.

A few negative comments related to too many results that were not relevant e.g. “ a lot of the stuff related only to one key word and not both” (where two key words were entered); and an expectation that a subject area should be selected before starting the search (a common starting point with federated search).

## **Comparison with usual search starting point**

In 50% of cases at Northumbria this was Google, but a minority of users cited specific subject or A & I databases. 86% of users found Summon better than their usual normal starting point.

"While Google Scholar is sometimes useful you don't have the option to refine your search often bringing up results from just the US which aren't relevant to what you need. Nora brings up more relevant information and even spell checks your searches." (Northumbria)

At Huddersfield, direct access through Athens has dropped by 50% implying that users are starting their searches in Summon and clicking through (via EZProxy) rather than the native interface. Further work on COUNTER statistics will be done in 2010/11 to confirm this.

## **Advanced search**

32% at Huddersfield and 42% Northumbria used the Advanced search option, and of these 76% (87% at Northumbria) found it easy to use. Over 80% at both institutions thought that there were enough Advanced search options. However 68% (58% Northumbria) didn't use the Advanced search at all. It is not clear whether this is because they felt it was unnecessary to do so or if they did not realise this feature was available.

## **Other features users would like to see**

Many of these referred to options that were already available, which clearly has implications for training and refining help pages, e.g.

- reducing or increasing the number of references displayed on a page;
- saving the references ;
- Boolean searching (though this is currently not available in Advanced Search);
- limiting the search to full text resources

Other suggestions included

- facility to search within the results, i.e. further refine a subset of references
- "back button"
- a list of the most popular resources accessed
- subject tab

The request for a "subject tab" so that users could specify a subject area before beginning their search was quite common, and somewhat ironic given that one of the criticisms of this approach with federated search was that users weren't sure which subject they should choose, or that they wanted to search more than one subject area at a time. It is likely that people saw this as a way of limiting their search results rather than using the filters and facets within Summon to do so.

## **Features users liked best**

'Ease of use' and 'simplicity' ranked highly as the best features. One user found Summon 'incredibly simple to use, seems much faster to access journals/articles', while another liked 'the fact that it brings all the different parts of the library into a Google-like search option'. (Huddersfield)

The full text icon was also popular:

:"...the pictures of FULL TEXT were great as I knew which ones to use." (Northumbria)

### **Features users liked least**

24% at Huddersfield and 20% at Northumbria stated that there was nothing that they didn't like. Negative comments related to the issues surrounding problems with access to full text. Different users demonstrated different perspectives e.g. one commented that 'it's still not a Google box', while another disliked it because of 'its Google-like operationality' (Huddersfield). Some comments were also received about the order of results and about the fact that Summon did not list the results on the initial screen by type, e.g. article, book, book review etc

At Northumbria there were over 200 comments: the highest number related to difficulties accessing full text (25 comments); some to the colour scheme (14); while others referred to results – duplication, irrelevance, too many or difficulties in finding specific articles.

At Huddersfield the highest number of comments was about access issues (10) and having to learn a new system (6). Other comments referred to the page layout, lack of a saved search history and its similarity/difference to Google

Some users did not like having to wait for filters to take effect one by one. They wanted to be able to select all the relevant filters at once to obtain a smaller more relevant results set more quickly; and also to keep the same preferences for all their searches (e.g. scholarly and peer reviewed material only, full text only). Although it is possible to keep the same search refinements in one search session, users would like to save these preferences for future search sessions.

### **Summary of online user survey feedback**

At both Huddersfield and Northumbria the feedback on Summon was overwhelmingly positive – particularly in relation to speed and ease of searching. Some of the frustrations relate to either the need to improve search strategies or difficulties linking to full text. There was a common theme of wanting to search a specific database or pre selecting a subject area before searching.

However it is interesting to note that attitudes to a service like Summon can differ as the two directly opposite comments reveal:

" As a resource for students, I think it would have a very negative effect on students' ability to access electronic and other library resources. Students need to be made aware that certain resources are appropriate for certain tasks; this mode of presentation presents book reviews on the same level as

books, nineteenth-century newspaper articles on the same level as current scholarly articles. This will tend to direct students towards the wrong kinds of resources... ( Northumbria)

and

" A powerful but easy-to-use and above all fast search engine for peer-reviewed work is exactly what I want. I really have no desire to be an expert on a dozen different ..... database interfaces as I currently have to be. I love the Summon single search box as I can feel confident in asking "Give me some good and recent suggestions for this subject" and know I will get a good result. However underneath it there's still the ability to refine and rework the search as I need to - somewhat more sophisticated than what's available at Google Scholar." (Northumbria)

## ***Focus groups***

### ***Northumbria***

Two user focus groups took place - the first for taught postgraduate physiotherapy students, and the second for a small group of researchers. We were unable to schedule any focus groups for undergraduates as students were in their main exam period and some had already left University for the year.

Both groups used the service before the final design was put in place, and before the LibGuides service was implemented. It was therefore in its basic format, i.e. just a page with a search box in it, without any help, or links to other routes to resources.

The focus groups format was as follows:

- **Introduction and observations**

Users were given minimal information about the service and then left to use it without help from Library staff for half an hour.

Library staff observed and recorded their use of the service.

Users were given sheets with screen shots and thought bubbles on which to record their opinions as they used the service.

- **Questions and discussion**

A member of Library staff then asked users questions about the service and the discussion was recorded as an MP3 file. The questions focussed on ease of use, relevance of results, what users liked most and least about the service, as well as how they felt Summon compared to other search engines.

The response to Summon from the both focus groups was overwhelmingly positive. In general they found it very easy to use without instruction.

### **Positive comments**

Features that the users liked were:

- facility to see immediately which articles are available in full text
- the preview abstract feature – the ability to see the abstract for a resource before clicking through to it
- the speed at which results were returned, especially compared to federated search
- facility to refine searches easily using the options (facets) on the left hand menu
- ease of saving and exporting references to Endnote
- “did you mean” function to correct spelling mistakes
- layout and appearance

### **Suggestions for improvement**

The following issues were raised as queries or suggestions for improvement.

- Some of the taught postgraduates wanted to know which database the results came from as they were required to provide this information as part of their assignments
- One of the researchers wanted to know how they would access the individual databases
- Multiple pages opening when linking to resources from Summon was confusing for some users

### **Library staff observations in focus groups**

Those staff who observed the use of Summon by the focus groups noted the following:

- Some of the taught postgraduates took a while to notice and use the facets to refine their search
- A message automatically generated at the top of the link resolver menu screen about missing information prompted some users to close down the window instead of waiting for the information to load. As result this message was changed to make users aware of the need to wait for the links to load.

### **Feedback from Library staff**

At both Universities feedback on Summon was sought from Library staff through focus groups and small group meetings with Library Liaison advisors at Northumbria and through the monthly electronic resources update meetings and specific training events at Huddersfield. The focus

groups mirrored those run with students and aimed to introduce all Library staff to the new service. The positive comments were largely the same as those with students, i.e.

- ease of use and speed of searching
- clear identification of full-text material
- easy refinement of results using the facets
- simple layout
- links easily to the library catalogue

However Library staff noticed a lot more of the detail of the service as they are used to using a variety of electronic databases and are experienced in what to look out for. They also wanted to know more about how the service actually worked. Typical questions were:

- how are the subject terms generated?
- what is being searched when using 'with these terms' option in advanced search?
- why are there no options to include a Boolean search in the Advanced search?
- 'written / created by' may confuse users rather than using author can it be changed
- can I just search the abstract field?

## **Linking**

Many staff raised linking to the full-text and issues with broken links or general confusion about getting access to material. This had been a major frustration for users of the previous federated search service (where there was no full text filter). Library staff thought that expectations were being raised further by having the clear identification of full-text material in Summon, and that if linking didn't work this would reflect badly on the new service.

## **Coverage**

Coverage is a major concern for subject librarians. They want to be very certain about which subject material is included in the Summon index. Although Serials Solutions provided an analysis of journal title coverage and estimated that over 85% of subscribed journal content was being indexed, subject librarians want to know what percentage of databases in their subject area is indexed and what gaps there are. They feel that journal title coverage, although meaningful to information professionals, is not helpful to users. A list of participating publishers is also available but this does not make it easy to identify database coverage. The coverage issue is also difficult to explain to users (who may not care anyway). Serials Solutions do not at present provide institutions with a list of database coverage; although they have said that it is in development, there is no timescale for this. This perceived uncertainty has led to a lack of confidence in the product amongst some subject staff as they feel that users may miss out on important resources if they rely completely on Summon for resource discovery. The impact of this is particularly important because of their direct interaction with users.

## **"Discovery service" concept**

The concept of the product as a discovery service has also been difficult to convey to some staff. Although databases content coverage may not be comprehensive in some areas Summon helps users find content that they may not have previously considered precisely because there is no pre-selection of subject area or databases. At both universities Summon is seen as one element of a search strategy that should also include searching individual subject databases where appropriate. There is still a tendency to direct users solely to those sources where subject material in full-text is 100% guaranteed. It is hoped that through interaction with users who react positively and enthusiastically to the product that subject staff will become more confident in it. At Huddersfield it was anticipated that some subject areas such as law would be concerned over the lack of legal content such as Westlaw and LexisNexis case studies; however some academic staff saw the potential of Summon for supplementing the information that users would find in specialist databases.

### **Concern about loss of subject databases**

At Northumbria Library Liaison Advisors were also concerned about users not being aware of the valuable databases and journal articles which were not available via Summon; and also the sophisticated interfaces supplied by some specialist databases and journals. There were also worries that the use of some of these databases (i.e. those not included in Summon) would fall dramatically and eventually be cancelled because of low usage statistics. In fact other institutions have reported large increases in the use of full-text sources as Summon makes more material more easily discoverable. There is still a concern however about the effect of the service on the usage of the abstracting and indexing databases.

At Huddersfield it was hoped that a combination of literature searching training by the subject teams and the availability of these databases on the wiki would alleviate any concern. However, it is also accepted that some databases will see lower use and that these will in time be candidates for potential cancellation.

## **7. Marketing and training**

At Huddersfield, the Serials Solutions “Summon” brand and name was retained and the service was marketed as a new kind of search. At Northumbria, the internally well known “NORA” (broadly Northumbria Online Resource Access) brand was retained and called NORA Power Search, and the new system was marketed as an upgrade to the existing service, albeit a “next generation” search.

### ***Northumbria***

A variety of methods were used to publicise the new service during both the beta phase when Summon was running in parallel with the previous federated search service and when the service went live in September 2010. The promotional campaign will be continuing into 2011.

Library staff awareness of the service was considered just as crucial for its success as that of the users. Staff were kept informed about the project and the service in a number of ways described below.

### ***Parallel running***

A prominent link with a brief explanation was put adjacent to that for the old federated search service, along with a link to the online survey asking for user feedback. An iPod was offered as an incentive to get users to use the service and complete the survey.

User focus groups were organised (as described above) at which users were offered the incentive of Amazon vouchers to attend.

Adverts promoting the new beta service were placed the federated search service home page, the e-Learning portal and the front page of the Library website

The forthcoming service was promoted at programme committee meetings in Schools by subject staff and at other senior management meetings including the Library User Panel.

### ***Promotional campaign***

A project team sub-group worked on initial ideas for the promotion of NORA which were then put together into a promotional campaign outline. The campaign is in two phases:

Phase 1 September 2010 – This phase aimed to begin promoting the change to the service and to raise awareness of the new version of NORA and the NORA Power Search (Summon) identity amongst academics and students, especially those returning for the new academic year.

Campaign slogan - Boost your research with NORA Power Search

The promotion in the initial phase was to remain low-key with the main focus of the publicity coming in the second phase below. Due to changes in staffing only the promotional material – posters, bookmarks (double-sided with the new Library catalogue) and an A5 informational leaflet were produced.

Phase 2 January 2011 – This phase aims to raise the profile of NORA and NORA Power Search University wide, and to target late adopters during exam / assignment periods.

Campaign slogan - Have you tried NORA Power Search yet?

Promotional materials in this phase will include a new poster which will include feedback sound bites taken from the online survey, staffed promotional stands for the entrance to the libraries, pieces in the University staff and Student Union publications, e-mails to all staff and students, NORA Power Search freebies.

### ***Library staff awareness and training***

Library staff focus groups (as described above) were run by members of the project team in June 2010.

Three training sessions on the new service were run as part of the September training week for the Academic Library Services division of the Library service. This division is responsible for enquiry services, subject liaison and teaching.

Regular updates about the progress of the project were put into the weekly staff newsletter The Loop.

### ***User guidance***

A number of guides to the new NORA Power Search service were produced by the Academic Library Services division of the Library. These are all available via the Northumbria Skills resource on the Library website

<http://elp.northumbria.ac.uk/bbcswebdav/library/Library%20Content/webfiles/learningobjects/topics.html?l3-11> and include the following:

- Online PowerPoint presentation
- INFORMS guide
- Printed help sheet
- Training session for users included in the Northumbria Skills programme

### ***Huddersfield***

As part of the build-up to the launch of Summon in July 2010 the Summon Implementation Group compiled a marketing review for Summon and associated library electronic resources (<http://library.hud.ac.uk/blogs/summon4hn>). This is a requirement of all projects within the Library.

It was important to cover the needs, wants and interests of all users and to deliver the desired satisfactions effectively and efficiently. To this extent, the marketing plan not only included marketing for potential users, e.g. undergraduates, researchers etc. but also related groups which need to know about this service:

- CLS Staff
- Academic staff as promoters of the service
- Partner College staff

- University Centres
- Research Office
- Research Centres
- University Research Committees
- PVCs
- Vice Chancellor

The marketing plan covered the period from March to September 2010 and comprised five work packages.

Marketing Plan work packages.

Work Package	Objective
Interface	To promote Summon front page and make necessary interface changes
Publicity	To disseminate promotional material throughout the University
Evaluation and Feedback	Ensure Summon is fit for purpose by launch
CLS Staff training	To ensure full training across service
User training	To ensure relevant stakeholders are offered training

A new marketing plan covering September 2010 – July 2011 has since been approved by the CLS Marketing and Communications Strategy Group.

### **Parallel running**

Like Northumbria, the Implementation Group at Huddersfield felt that a period of parallel running combined with a publicity campaign showing the benefits of the new system and subsequent user evaluation and training were key factors in the transition to Summon.

A number of press releases via the staff bulletin (a weekly email), the staff newsletter, Huddle, and the student newsletter included comments from early adopters from the beta launch were asked for comment; one such comment from a senior researcher, 'Summon is bloody brilliant', was used in the student newsletter. In addition, positive comments were drip-fed via the Library Twitter account and the E-resources Blog, which now feeds items with a separate Summon tag to the Huddersfield Summon page.

A link to Summon from the staff and student portal pages and Blackboard, the University's virtual learning environment (VLE), were ready for the beta launch in March asking potential users to test drive Summon, this was done in conjunction with the evaluation questionnaire..

Flyers, leaflets and guides were produced in-house to advertise the new service and the availability of drop-in training sessions, these ranged from flyers aimed at academic staff who may have doubts about the new service to basic user guides.

### **Promotional Campaign**

A huge publicity campaign was initiated for the start of term, including banners on the university campus, and life size posters in university school entrances as well as in the library foyer. Inspiration was acquired from the marketing campaign used by Arizona State University to promote Summon within their institution. Permission was sought to use and adapt two of their marketing slogans. The two slogans used emphasised the benefits of the product to both undergraduates and to university researchers:

**Summon "Research has never been so easy"**

and

**Summon "A serious Research engine"**

At freshers' fayre and in the library, pens and shopping bags were provided, the bags with the slogan:

**Summon "Research in the bag"**

This careful planning and consultation to overcome any perceived problems; and marketing seems to have proved a success and early indicators show that it has contributed to increases in usage of library resources.

Access logs for September/October 2010 show a five fold increase in usage from the same period in 2009.

September/October 2009 47816

September/October 2010 237413

Further analysis of COUNTER usage statistics will be undertaken in 2011, but the access logs do appear to show that users **are** using Summon as their first search rather than going directly to native database interfaces.

The Implementation Group will continue to meet up until July 2011 with an emphasis on evaluating qualitative data which is being sought via further focus groups for researchers; via feedback from information literacy sessions and more analysis of search results.

## **8. Key points for effective practice**

The following are some key points and areas to consider for others planning to implement Summon and which may impact on project planning and timescales for implementation.

### **Catalogue records**

You may need to tidy up some of your cataloguing records as Summon will highlight any issues with these. In particular any records not created to standard cataloguing rules may cause problems so think about items you may want to edit or exclude such as brief copy cataloguing records, interlibrary loans etc. Manual editing may impact significantly on project timescales.

### **Ingesting data from local sources**

If you are an institution that does not have the technical expertise to extract data from your OPAC or institutional repository and rely on a third party to do this for you then contact them as soon as possible to begin discussions about how to do this to avoid delays in the delivery of your Summon instance. This is even more important if you are the first library who uses your particular LMS to do so. It would also be prudent to build into your schedule time for slippage in this area in case things take longer than anticipated.

It would also be helpful to contact other institutions who have been through the process to ask their advice about how to approach this, especially if they use the same LMS as you – the Summon listserv is a valuable tool for this.

### **Coverage**

Coverage continues to be an issue for some library staff at Northumbria and more transparency about database coverage would make it easier to ease this concern. While there may be issues of commercial sensitivity for Serials Solutions this may leave some users and Library staff in doubt about the completeness of their literature searching and a lack of confidence in Summon.

Huddersfield believes that these concerns have been addressed in staff training and the availability of the E-resources Wiki as a means of alternative access to essential databases.

### **Linking to full text**

The success of Summon relies upon how effectively you can link from it to the full-text material to which you subscribe. Summon does a great job finding results but if users are unable to connect to these smoothly then one of the main frustrations of federated searching is replicated and users will get disillusioned. It is recommended that time is invested in ensuring that the set up of your link resolver is as good as it can be.

### **Mismatches between indexing and linking to full text**

Indexing problems are caused by incorrect and misleading data supplied by publishers being ingested into Summon index which then causes problems when trying to connect to full-text.

These queries can be time-consuming and complex to unpick and involve contacting Serials Solutions and often the publisher and provider of the metadata, but seem to be an inevitable consequence of this work.

### **De-duplication of references**

Institutions should be aware that although Serials Solutions do normalise the content they ingest to avoid duplication of records there are still some issues with this that Serials Solutions are still perfecting. This can cause some confusion for users and library staff.

### **Launch of new developments and functionality**

During the implementation period and immediately afterwards many new developments and functionality were implemented for Summon, most of which were well received. However they were sometimes rolled out very quickly without much notice to customers who had no opportunity to try them in a non public test environment or to update colleagues and help pages. In some cases the developments were inappropriate to some institutions – e.g. the authentication banner– but were switched on regardless and had to be hastily removed to avoid confusing users.

Institutions should ensure that regularly check the Summon list serv where advance notice of these developments are made. This will give at least some time to inform Serials Solutions of their wish to opt out of developments if required.

### **Summon list serv**

There is a very useful and active Summon listserv. As well as raising queries or suggestions directly through the Serials Solutions Client Centre, this is an excellent facility for communicating and exchanging experience with other customers (or even just “lurking”). It is actively monitored by Serials Solutions staff who also contribute to discussions or give general advice.

### **Training**

Summon is a deceptively easy to use product and most users can use it without any training; however it also has rich functionality that may not be evident from using the single search box so there is still a need to educate both users and Library staff to get the most out of it. This has issues for training both staff and users. For example Advanced search can be used in a quite sophisticated way to specify search criteria, whether looking for a specific article in a specific journal.

## **9. Recommendations for future developments**

### ***Personalisation***

At present users can save results into a temporary folder in order to export, e-mail or print them. These are cleared when the user leaves the Summon search session. In common with other electronic resources it would be good to be able to personalise Summon so that these search strategies (including preferred filters for e.g. full text or scholarly resources only), results and alerts could be saved more permanently. Currently, due to the fact that no login is required to search Summon this is not possible.

At Huddersfield, the vision is that different users will be presented with different search results, even when they enter the same search terms; e.g. “organisational strategy” would produce a different set of results for a psychology student and a business student – the system would know the course of study and weight the search results accordingly.

As Serials Solutions have initially concentrated their efforts on developing the search facilities and building up a critical mass of content, little has been developed in terms of personalisation features. However, we believe the company will begin to address some of these issues soon.

### ***Usage statistics***

The statistical package for Summon has been in beta since July 2010 and is due to be launched shortly. The package is similar to Google Analytics and provides in-depth details of search terms, use of facets to refine results, and a geographic map overlay. Prior to the development of the package, the company canvassed the Summon customers in order to draw up a wish list of features. COUNTER compliance, which would enable Summon to be benchmarked against other resources, is also desirable as a future enhancement.

### ***Adding new content to Summon - timeliness***

Serials Solutions are constantly acquiring new content for Summon. However, there can be a significant delay between acquiring the content and making it available to customers via the 360 Knowledge base. Whilst this is understandable given the sheer amount of content to be added, there is a lack of clarity about the planned availability date of this content. A degree of transparency in this matter would help customers manage user expectations (including those of library colleagues) better.

Likewise it is essential that new issues of journal content is added as quickly as possible, and customers advised as soon as possible any significant delay. The potential lack of current material is seen as a major risk. Users expect new content to be available immediately upon publication; if they perceive this to be a problem with Summon they will become disaffected.

### ***Development of a non public test environment***

We have alluded above to the frequent development of new functionality in Summon, which while mostly very welcome may not always be appropriate for all customers. It would be useful to have a non public test environment to try out new functionality rather than implementing it by default and then having to withdraw it.

### ***Clear roadmap of future developments***

A clear development roadmap and customer input into developments would be welcomed.

## **10. Conclusion**

Testing and feedback to date tells us there is no doubt that Summon has been well received at both Universities as a way of simplifying access to information resources and it goes a long way to addressing the Google challenge. Most users appreciate the speed and simplicity of searching which brings together both print and electronic materials in a single search; and many also found that by using Summon they could get results from sources they had not previously considered using. Just as Summon continues to mature a number of similar competitor products have also been developed. It will be interesting to see how these products compare when both Universities come to the end of their current contracts in 2012.

Huddersfield and Northumbria plan to collaborate further by publishing at least one article on the analysis of user surveys, focus groups and usage data. Both Universities will also continue to contribute data to the Summon4hn blog.

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