Adding value to usage statistics: the Journal Usage Statistics Portal (JUSP) enhancements

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Abstract

The Journal Usage Statistics Portal (JUSP) provides a single point of access to journal usage data from participating publishers on behalf of UK academic libraries. In August 2011 JISC awarded funding to develop two value-added enhancements to support existing service provision and help libraries assess the value and impact of e-resources. This article describes the development of these enhancements and their impact.

Introduction to JUSP

The Journal Usage Statistics Portal (JUSP) provides a single point of access to journal usage data for UK academic libraries. The service gathers data from JUSP participating publishers using the Standardized Usage Statistics Harvesting Initiative (SUSHI) protocol. Machine processes such as SUSHI replace user-mediated data collection procedures to offer greater efficiencies by avoiding duplication of effort. All basic reports in JUSP are based on Counting Online Usage of NeTworked Electronic Resources (COUNTER) JR1 and JR1A reports which are added to the portal monthly. As new libraries and new publishers join JUSP, usage data

are collected wherever possible back to 2009, allowing trend analysis over a three-year period.

JUSP was set up in 2010 following the testing of a prototype model and is a JISC-funded project led by Mimas at The University of Manchester in partnership with JISC Collections, Evidence Base at Birmingham City University and Cranfield University. It is now considered an essential tool for the management and analysis of e-journal collections. Currently used by 148 UK academic institutions, the automated usage statistics portal helps librarians evaluate the impact of e-resources to inform future purchasing decisions. By providing a single point of access to statistics it facilitates quick and efficient access to usage data, and supports publishers in providing access to statistics for their customers. JUSP also provides JISC Collections with the statistics they need to support future negotiations in order to gain the best deals for the community. By July 2012, over 30 publishers and intermediaries had signed participation agreements with JUSP. From an initial concentration on those publishers who offered NESLi2 deals negotiated by JISC Collections, the range has now broadened. The number of publishers continues to grow and adding more e-journal publishers is given high priority.

In August 2011 JISC provided funding in order to develop two complementary, value-added enhancements to support existing service provision. The enhancements were:

- Publisher deals identification - identifying and presenting publisher deals information
- Addition of core or subscribed journal title reports to the portal

The project completed in July 2012 and the enhancements launched to libraries during the summer. The enhancements have been developed from their early prototype phase into features that will greatly enhance the value of JUSP in saving libraries' time and enabling better analysis of publisher deals. The project, developed in collaboration with the user community, is described in more detail below.

Background to the enhancements project and context for development

In developing JUSP as a single point of access for journal usage statistics, it was apparent that once the statistics were held in the portal, additional reports could be produced which would help libraries in the analysis of their e-journal collections. Reports such as 'titles with the highest use', 'trends over time', 'annual summary of publisher usage' could be displayed for each participating library based on the JR1 and JR1A reports held in JUSP for the growing number of publishers and intermediaries who had signed participation agreements.

From previous work done by members of the JUSP team, and in particular the Publisher Deals project from Evidence Base[i] in which 14 higher education libraries had taken part, it was clear that libraries could get more benefit from JUSP if we extended the range to include data other than that in the JR1 and JR1A reports themselves. Two particular areas were identified:

1. Publisher deals identification

   Enabling libraries to see which titles were available in the particular deal or collection subscribed to and to compare these title lists with their own JR1 reports

2. Addition of core or subscribed titles

   Enabling libraries to mark up their own core or subscribed titles and then see these titles as starred items within JUSP reports

The publisher deals work built on experimental reports already made available in JUSP for a limited range of publishers, and these, although not widely publicized, had already proved of interest to JUSP libraries. The core titles work was also initially piloted with two libraries. The work involved in developing these enhancements more fully was beyond the scope of the original JUSP project and it was therefore decided to submit a bid for additional funding to JISC. In putting the bid together, views on the enhancements were sought from JUSP libraries and the following are typical of the messages of support received.

"I think that these would be excellent additions in terms of developments to the portal as this is a very time consuming part of any internal benchmarking processes from our experience"

"…these two metrics will become even more important as big deals are analysed for value."

The proposal was accepted by JISC and the enhancements project ran for 11 months from August 2011 to July 2012.

The first task was to recruit a group of volunteers who would be prepared to test and comment on the enhancements as work progressed. A total of 12 libraries was initially recruited, working on either one or both of the two new features. The enhancements were developed over several months and benefited greatly from the contribution of the pilot libraries. They were launched at a series of 'Making the most of JUSP' workshops held in May and June 2012, and after that made available to all JUSP libraries, with guides and exercises to help in their use.

Publisher deals identification

The JR1 report will often contain titles that are not available in the particular deal or collection to which the library subscribes. Some publishers include all their titles in the JR1 irrespective of the deal taken. This will create at first glance a misleading impression of the number of titles available, and will particularly affect the number of titles shown with nil use. Libraries therefore have to identify which titles they have access to before they can get a true picture from the JR1 of how a deal was being used.

Even where the publisher does in theory include only titles in the particular deal or collection, there will generally be a number of 'extra' titles included in the JR1. These may be titles which have changed name or changed publisher but where a few earlier issues remain with the original publisher. They may be open access titles or titles to which the library has individual subscriptions outside the deal.

The aim of this enhancement was therefore to make it easier for libraries to see what titles in the JR1 were available to them, and so make a more informed judgment on the value of the deal and the true extent of nil use.

Title lists

Starting with a small group of NESLi2 publishers and the pilot libraries, the first step was to load the publishers' title lists in JUSP and match these up to the library JR1 reports. The title lists were taken directly from the JISC Collections website and related to the various options within the NESLi2 deals negotiated by JISC Collections for the higher education community. Wherever possible, deal variations from 2009 onwards were included, so that libraries would be able to look at the deal information over a period of years, as they could with all other JUSP reports.

As the project progressed, it became apparent that libraries would like to see more information on what titles were available in the various deals. In addition to providing title lists for each year, the following additional lists were also developed:

Titles included in deals across multiple years

With new titles appearing and other titles ceasing or changing publisher, pilot libraries wanted to look over a three-year period at what titles were available in the deal.

> *'It is useful for us to see retrospective information as it helps in picking up new and transferred titles from when they appeared in a package and how use grew (or not)!'*

> *"…some way of showing what went in and out of the deal year on year…in a handy one-stop shop."*

The 'titles included in deals' report makes this information readily accessible using ticks and crosses to illustrate how titles have entered or left a deal over a period of years. Given that deals themselves often cover a three year period, and course modules or research interests may well change over the lifetime of the deal, being able to look at trends over time has always been an important aspect of JUSP and this report helped explain usage patterns for particular titles that may have entered or left the deal over a period of time.

Compare two deals from the same publisher

At renewal times where libraries are assessing the value of the deal or collection they take, they may want to consider either upgrading to a deal with more titles, or downgrading to one that has fewer, as one pilot library explained:

> *"…libraries might be interested in seeing what is in 'Premium' but not in 'Standard' etc. we are reviewing whether the titles that are only in 'Premium' are sufficiently high use to justify keeping the most expensive option."*

This JUSP report developed at the request of pilot libraries allows the selection of two deals from one publisher and shows which titles form part of each variant. Again, titles appearing in one or both deals are clearly identified, and the report can be downloaded and then compared with usage reports to see what would be gained or lost by making a change.

Matching titles and deals

The 'usage of titles and deals' report takes the library's JR1 for a selected year and publisher and matches it with the titles included in the appropriate title list. By sorting the report by the 'deal' column all those titles that are not in the title list will appear together. This information is picked up in other JUSP reports which can then display the number of titles with nil use that are within the deal and those outside it, enabling a truer picture of the extent of nil use.

Once the 'usage of titles and deals' report was made available, libraries began to ask about those titles that appeared outside the deal that had usage against them. One reason was due to open access titles and it was decided to identify those open access titles in the Directory of Open Access Journals (DOAJ) within JUSP initially, although OA titles will be an area of ongoing investigation. By clicking on individual titles in most JUSP reports, their usage history over three years or more will be shown.

This feature was of particular value in the 'usage of titles and deals' report as it would often provide the clue to why a title was still being used yet was no longer listed in the deal, generally because it had changed publisher and certain earlier volumes were still available.

Identifying deals

From the start, JUSP had asked libraries to specify the deals or collections that they took. This was in order to maintain an accurate record of what subscriptions were held. With the titles and deals enhancement, it became more important that the information held on deals was accurate and up to date. When logging in to JUSP, each library will see on its welcome screen a list of deals taken in 2011 and 2012 and they are able to edit this information themselves. There is also a page where they can edit earlier deal information back to 2009. With all this in place, libraries can take full advantage of the 'usage of titles and deals' report identifying which titles were available to them in a deal over the past three years.

Addition of core or subscribed journal titles to JUSP

Many publishers still have a requirement to maintain existing subscriptions as part of the costs of the deal. As long as this 'historic spend' model remains an integral part of most journal packages, it is important for libraries to know how well or how badly the titles they originally subscribed to some years ago are now faring within the deal Some publishers allow a certain amount of substitution to take account of such changes. Academic departments will always be interested to see how well the subscribed titles they have chosen are actually performing, given the importance now assigned to usage statistics in collection development, as shown in examples given by Hulbert and Roach[ii] and by Tucker[iii]

Libraries wishing to assess the value of a deal have therefore to look separately at usage of these core or subscribed titles and other titles included in the deal. They would expect these titles, where the cost is heavier, to have higher use, though this is not always the case. Libraries can then use these data to make any substitutions that are allowed. Libraries can also judge the total value of a deal by looking separately at how much the extra titles are being used. Findings from the Evidence Base Publisher Deals project and from Bucknell's work at the University of Liverpool [iv] made it clear that libraries were already establishing systems to identify use of core titles. There were therefore strong grounds for adding this feature to JUSP.

In order to do this, it was necessary to create an area within JUSP where libraries could mark up their own core or subscribed titles. Once this had been done, these titles then appeared with a star against them in all JUSP reports.

Developing the process of marking up titles evolved during the project and we got much constructive feedback from pilot libraries that was very helpful in making the process as straightforward as possible. Users can either enter individual titles, or mark up titles in their JR1 by selecting a publisher and year from a drop down menu.

Although titles must be indicated manually, we have tried to make the process as easy as possible. Once titles have been entered for one year, they can be transferred on request to earlier or later years, when only minor changes will have to be made. The task of entering all titles has therefore only to be done once, and when completed all core or subscribed titles will be marked with a star in all JUSP reports. For example, when running the 'titles with the highest use' report, it is possible to see at a glance which core titles are being heavily used, and also which non-core titles included in a deal are also getting high use. Libraries wanting to do further analysis can download the reports as csv files and sort by core and non-core titles to see usage of each.

Individual subscribed titles

Libraries can also use this feature to mark up the individual subscriptions they hold, either instead of taking a publisher deal, or where additional titles outside a deal are also held. This will help those libraries that take only subscribed titles with a publisher but may find more titles included in the JR1 report. Once marked up, these titles will also show up in the 'usage of titles and deals' report among titles held outside the deal.

How will libraries use the enhancements?

The enhancements were launched at a series of 'Making the most of JUSP' events held in April/May 2012. Presentations highlighted the ways in which libraries could use these new features. Guides and exercises were produced and made available on the JUSP website for those who had been unable to attend any of the JUSP events.

The degree of interest among JUSP libraries for the core titles enhancement can be gauged from the number of libraries who following the launch began to mark up their core titles. At the end of June 2012, 28 libraries had already entered titles and a number of requests to transfer titles to other years had been received. Feedback from the community survey that was running at the time of the enhancements launch has been very positive:

> *"I attended a workshop recently which gave me further insight into using JUSP, I came straight back here and entered my core titles as a result of the workshop, and I intend to use JUSP more frequently now."*

> *"Since the adding of the core subscriptions I will be able to do more reporting."*

> *"The ability to add local holdings is also very good, and I only wish I'd had all these publishers available last year when evaluating a deal!"*

The JUSP community survey carried out in June 2011, particularly highlighted the time efficiencies that have been achieved through the titles and deals enhancement by those taking part in the pilot project.

"Time savings for deal analysis are huge given our desire to compare title usage over three years. This is facilitated by having data all in one place and the ability to not only amalgamate reports but also access information relating to the nature of the deals themselves."

"The close match with the NESLi2 deals saves a considerable amount of time, because knowing what is included and matching this against reports manually is very labour intensive, and having this done at a national level is incredibly helpful."

Inevitably matching up titles and deals cannot be an exact science, and queries have arisen about what titles are actually available in the deal or why certain titles do not appear in the JR1. We cannot hope to account for all discrepancies, but where these have come to our attention, we have generally been able to approach the publisher and get a resolution of the issue. As with other aspects of data collection in JUSP, this is a far more satisfactory and time efficient solution than having libraries each approach a publisher separately.

Impact of the enhancements on JUSP service provision

The enhancements project has provided an excellent example of co-operation between the JUSP user community and the JUSP team. It has enabled libraries to influence project development and facilitated a greater two-way dialogue between the JUSP team and users of the service. From the early prototype phase to the time of the launch, the new features have been developed in response to the feedback provided by pilot libraries, ensuring that they meet the needs of the community and will further enhance the value of JUSP in saving libraries' time and enabling better analysis of publisher deals.

It is also apparent that the more information JUSP provides, the more queries are likely to emerge. There have been several queries from JUSP libraries relating to titles included in the publisher deal lists and not appearing (or appearing under different names) in the JR1 reports. Highlighting these discrepancies can have advantages for libraries, as the JUSP team have good relationships with various publishers technical teams, and can often get changes made to the benefit of all libraries, rather than each individual library that spots a

problem approaching the publisher directly. The 'usage of titles and deals' reports help libraries to identify which titles in their JR1 reports are not included in the deal or collection to which they subscribe. They can then track the usage history of any titles they wish to investigate further.

Longer term benefits

The project will deliver significant benefits to the community on a long-term basis through on-going access to a centrally managed source of information supported by tools to filter and analyse journal usage. In less than a year, the enhancements project has added two new features, which have become firmly embedded as part of the JUSP service. It has illustrated how adding extra information alongside the JR1 and JR1A reports can add to the value of the service. As new publishers are added, title lists are obtained from the JISC Collections website and libraries are encouraged to enter their deal information. Usage of titles and deals can then be run for any publisher in JUSP. As with all JUSP reports, the more publishers that are added the more time libraries can save and adding more e-journal publishers remains a priority.

The success of the JUSP training events in terms of numbers applying and feedback received has shown the importance of ongoing support and training if libraries are to make full use of all the reports included in JUSP and particularly those connected with the new enhancements.

It is anticipated that over time the publisher deals enhancement will help to provide a truer picture of journal usage and the value of deals negotiated by JISC Collections.

Future plans

Future plans include regular webinars demonstrating particular features of JUSP, more guidance notes and worked examples using dummy data. We are also looking to develop an area where JUSP libraries can put forward their own ideas and where examples of good practice can be shared with the community. It is anticipated that the simple administration

interface will allow sites to easily create and maintain their own lists using a flexible UI with functionality to create and update lists. By providing a simple means of allowing libraries to compare usage of subscribed and non subscribed titles, information will be more readily available to help them assess the value of a deal, allowing libraries to generate reports which can be used with senior library management to assess the overall value of a deal and with subject departments to show how their subscribed titles are being used. Availability of an institutional administration area within JUSP could potentially be used for other purposes in the future, e.g. providing additional information such as subject data. The team will continue to consult with the community to ensure that service development responds to user needs.

Conclusion

The JUSP enhancements project is an excellent example of what can be achieved through effective collaborative working. An iterative development cycle informed by community liaison has been key to success and provides a model for future development work. The JUSP team are exploring ways in which this approach can be formalized through aspects such as community forums, support and advisory groups. The new enhancements provide additional opportunities for libraries to evaluate their journal subscriptions and establish value for money. Ultimately they have resulted in an improved user-centric shared service, which allows institutions to save time and money, and make informed decisions on management of their e-journals.

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