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# The Journal Usage Statistics Portal (JUSP): adding value and assessing impact through a collaborative approach to service development and delivery

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## Background and context to JUSP

Just as publishers and librarians came together in the early days of online journals to help frame the key requirements and obligations on both sides in a licence agreement, so that spirit of collaboration and cooperation has extended into the area of journal usage statistics via the work of COUNTER and now of the Journal Usage Statistics Portal (JUSP).

It was apparently Disraeli who said that there are “lies, damn lies and statistics” and with the arrival of COUNTER compliant usage data, publishers and librarians inevitably begun pouring over the numbers. What did they find? There are those ‘stars’, the very high usage titles that seem way ahead of the rest. Then there is that interesting analysis of usage of titles available via a Big Deal but not a subscribed title and the evidence from some publishers is that usage of unsubscribed titles is actually quite high. Were these titles ones that the library once subscribed to but had to cancel due to budget cuts? Have the librarians not been selecting the right content or is it simply that when you open-up access to much more content, people will find and use material, previously not available to them. And then of course there are those zero use titles, but that issue is worthy of a paper in its own right.

Since the introduction of the COUNTER code of practice in 2002, libraries have been able to obtain reliable and consistent usage statistics for an increasing number of journal publishers. The COUNTER JR1 report (number of successful full-text downloads) is now offered by more than 120 vendors and is a condition for the NESLi2[[1]](#endnote-1) deals. Getting access to these statistics is, however, only part of the picture and it is important that libraries are able to analyse them and use them as part of their calculations for value of money. The time consuming process of visiting each publishers website, remembering correct passwords and downloading usage reports is in danger of becoming an end in itself, leaving little time for actual analysis. Evidence Base[[2]](#endnote-2) has worked with UK higher education libraries over several years assisting them with the analysis of publisher deals and their value, but the process was an arduous one, involving templates and spreadsheets, and few libraries had the time to do this analysis as thoroughly as they would wish. Yet such analysis has become ever more crucial as libraries are forced to look in much more detail at how the publisher deals they subscribe to are offering them value for money, and to make the case for continuing subscriptions against a background of increasing pressure on funds.

A report commissioned by JISC Collections[[3]](#endnote-3) in 2004 to analyse usage of the NESLi2 publisher deals recommended the setting up of a usage statistics portal[[4]](#endnote-4). Community demand for such a portal was established in an initial scoping study and in further work done by Evidence Base in its Publisher deals project working with libraries and using the analysis methodology developed for the JISC Collections study[[5]](#endnote-5). The work involved in setting up such a portal, however, could not easily be contemplated while usage reports had to be gathered individually from each publisher’s website.

The introduction of the SUSHI protocol, and its endorsement by COUNTER as a requirement for COUNTER Code of Practice release 3[[6]](#endnote-6) made it possible to investigate the feasibility of developing a usage statistics portal and a prototype was developed in a project by Evidence Base and Mimas[[7]](#endnote-7) in 2008/9[[8]](#endnote-8). Although publishers did not at this time have SUSHI set up, the feasibility study showed how such a service could work and took the first steps in developing the database. The project acronym JUSP (Journal Usage Statistics Portal) has now become familiar and the website ([www.jusp.mimas.ac.uk](http://www.jusp.mimas.ac.uk)) contains up to date information on library and publisher participants, newsletters and support materials, as well as providing access to the portal itself for JUSP libraries and publishers.

## Purpose of JUSP

The original purpose of JUSP was to provide a single point of access to usage reports from those publishers offering NESLI2 deals. NESLi2 is the UK higher education community’s online journals consortium, comprising 130+ higher education institutions and 17 of the world’s leading STM publishers. NESLi2 negotiations are undertaken by JISC Collections on behalf of the community, and agreements are typically 2-4 years in duration. As well as seeking to secure best value for money, JISC Collections seeks compliance with its model licence and with a range of other technical and administrative requirements designed to make life easier for users of the journals and the librarians at each institution who manage access. The provision of usage statistics to JISC Collections is a requirement on publishers participating in NESLi2 agreements. The majority of NESLi2 agreements are Big Deal arrangements whereby members benefit from access to all journals available from a publisher for an additional fee.

Instead of visiting numerous different publisher sites, libraries participating in JUSP have only to input one password to get access to all JR1 and JR1a (backfile) reports that are held in the portal. These can be viewed or downloaded for any selected time period and sorted by title or number of requests. JUSP offers a number of additional features to ensure that libraries have an accurate record of usage. For example, usage from intermediary services is added where appropriate, and usage of a current deal can be viewed separately from usage of a backfile collection.

Usage reports are gathered on a monthly basis, and libraries notified when new data are available. The portal also collects JR1 and JR1a reports back to January 2009 so that libraries can view trends over time. Special tables have been developed that can show:

* Titles with the highest use from one publisher or all JUSP publishers
* Titles in various usage ranges, from nil and low up to very high
* Search facility that can be used to track down one title by title or ISSN, or for keyword searching
* SCONUL return

It was apparent that the service being developed for NESLi2 publishers could be extended to cover a wider range of publishers once the initial target had been reached and the plan over the next year is to seek agreements with more publishers. This is certainly a development which has the full support of the libraries.

## Libraries participating in JUSP

From the 5 libraries in the original prototype, JUSP has grown to the extent that it now (as of Sept 2011) has 116 member libraries and includes almost all the larger higher education institutions in the UK. It is our aim by December 2011 to invite all 168 higher education libraries to participate, including the smaller specialist colleges that may not take NESLi2 deals. The JUSP team aims to respond quickly to requests or suggestions from participating libraries and the feedback we have had from libraries has been excellent.

*"The project as I see it is very dynamic which I think mirrors the nature of electronic resource provision generally. I also feel that the project has a real community feel to it, in that it actively responds to user input and I think it is a really good example of collaborative working - something we should be striving towards to avoid us needing to reinvent the wheel! I think the team has worked very well with libraries in seeking their input." Sarah Weston, University of Portsmouth*

*“JUSP has quickly matured into a highly valued service largely due to the team's skill in solving problems (SUSHI protocols!), and presenting complex data within a clear and well-structured user interface. Evidence-based library decisions rely on the timely analysis of usage statistics.” Cliff Spencer, Newcastle University*

## Publishers and JUSP

In standardising the output of usage data and setting certain technical and information requirements, COUNTER began the process of removing ambiguities in the data publishers and librarians were viewing and providing a ‘quality’ or ‘authority’ stamp. More recently, COUNTER has stipulated that publishers open their books for audit on a regular basis.

Without this groundbreaking work on COUNTER there would be no viable service like JUSP, and the project team is very grateful to publishers for their engagement with us and their participation in the service. If COUNTER created the standardisation, JUSP has helped provide a concrete reason for publishers to become SUSHI compliant and, in so doing, transformed the ability of librarians to rapidly and conveniently download and review their usage statistics; a task that has previously been immensely frustrating and time-consuming in many cases.

With standardisation and administratively efficient ways of harvesting the data, we reach the fundamental objective of a service like JUSP: the ability for librarians to evaluate the value for money they are deriving from their investment in scholarly journal agreements. However, this is a two way process, and with librarians armed with their latest usage data and publishers in possession of like-for-like statistics, a meaningful discussion around value for money can proceed.

The investment that publishers have made in coming into JUSP is not just about keeping a consortium customer happy by populating their box of tricks, but a recognition that in a time of financial and economic frailty and instability, discussions around value for money and return on investment need to be evidence-based and rigorous. JUSP is enabling this to happen at both consortia negotiation level and at individual institution level.

So, how is this marriage made? A basic legal agreement has been created and can be obtained from JISC Collections for any prospective publisher to review. The key requirements are COUNTER compliance and, by implication, SUSHI compliance. Once the legal side of things are signed-off, the technical people step in and begin the process of testing the delivery of data and, crucially, the SUSHI client, of which more later.

Of course, it is not just primary publishers who are partnering with us on JUSP. Established gateway providers in the UK higher education sector, like Swets, EBSCO EJS and Publishing Technology are all active in contributing data to the portal enabling institutions to obtain a comprehensive overview of their usage from the various portals they use. Whilst these organisations have their own services in this area, often with enhanced functionality that enables financial calculations to be made, they have entered into the concept and spirit of the shared service mentality and in today’s ‘collaborate and compete environment’ have shown what can be achieved when service providers work together for mutual benefit and for the good of their joint customers.

## Standardized Usage Statistics Harvesting Initiative (SUSHI)

The implementation of SUSHI (Standardized Usage Statistics Harvesting Initiative)[[9]](#endnote-9) has the potential to provide great benefits to publishers, and is fundamental to the ongoing development and success of JUSP. The SUSHI protocol is a machine-to-machine way of gathering COUNTER compliant usage statistics; this removes the need for institutions to login to publisher websites to download reports, and allows automated monthly gathering of data. COUNTER compliance and this automated monthly harvesting of publisher statistics are cornerstones of JUSP, and we are working closely with publishers to ensure that the protocols are adopted universally. The publishers that we work with recognise the benefits that the portal can offer both themselves and their customers, particularly in the streamlined and effective gathering of monthly statistics into one central place.

By September 2011, we had successfully implemented SUSHI client software to obtain monthly data from the following publishers: Elsevier, Oxford University Press, Springer, Publishing Technology (ingentaconnect), American Institute of Physics, Project MUSE, Annual Reviews, Nature Publishing Group, the Royal Society of Chemistry, HighWire Press, Institute of Physics and EBSCO EJS. In addition, we have working clients for a number of other publishers, from which we will be gathering data in the coming months. Several publishers did not offer a SUSHI repository prior to joining JUSP, while others had very little prior experience in working with a third party to supply statistics in this manner. In some cases, notably Elsevier, we were the first service to work with the publisher in implementing a SUSHI system, which has proven both rewarding and groundbreaking.

*"The JISC Usage Statistics Portal will help inform digital management decisions, and we're pleased to have the opportunity to help make the process of journal usage analysis and evaluation quicker, easier and more transparent. This fits completely in our philosophy of partnerships with customers and our mission statement. JUSP has been a leader in this area, and we're pleased to partner in the development of the portal."* - Jay Katzen, Managing Director of Elsevier's Academic and Government Markets.

JUSP collects data from each publisher on a monthly basis using SUSHI, and the resultant XML-format files are put through a range of in-house checks to ensure COUNTER compliance and to convert the data into a form suitable for loading into our database system. Thus far we have collected data as far back as January 2009 for all publishers in this manner, and by September 2011, the JUSP portal contained more than 32 million individual pieces of information at journal title level.

An interesting side note concerns the development of the SUSHI clients themselves, the software which "talks" to the publisher repositories and retrieves the data. The publishers supply their SUSHI output files in ways which conform to the standard but which might differ slightly in internal format and also which might require different types of authorisation protocols or request parameters, and so we have had to create software which is flexible and robust and which would cope with different SUSHI repositories; we have developed our own in-house Perl clients which work on a Unix platform. Prior to this, the only client software available was either written under the Microsoft .NET Framework and designed to work in the Windows environment, or used Java, which can be very complex to work with. Our ultimate aim will be to create one generic Perl SUSHI client which will cope with multiple repositories and authentication systems; this will be made available as free, open source software for others to use.

## JUSP SUSHI server

JUSP has also developed its own SUSHI server software. This is a PHP-based system which allows third parties to download usage data directly from JUSP. This is currently in an advanced testing phase, with institutions reporting success in obtaining their usage statistics via the JUSP server. We are also working closely with Ex Libris to ensure that JUSP outputs can be imported directly into their UStat statistics analysis tool, which provides many complementary services to JUSP and which is widely used in the community we serve. By August 2011, Ex Libris were pleased to report that tests had been completed, and proved successful and that they would release certification of JUSP in due course.

## Development process

JUSP is very much a community resource, and we want to make sure that ongoing work and continued development meet the needs of libraries. User feedback is an important part of our process. In aiming to provide a quick, responsive service, we find we get a good deal of informal feedback on an ongoing basis from JUSP libraries, who will often approach us with ideas for ways that JUSP could be improved or developed. Some changes we are able to implement instantly, some of course will take a little longer. In addition to this informal feedback, we also carry out regular user surveys, maintain statistics on usage of the site, and conduct case study interviews. These latter have been extremely useful in seeing at first hand how libraries are using JUSP as part of their process of analyzing the value of publisher deals, either using their own spreadsheets or in conjunction with statistics packages such as UStat. Libraries are kept informed of developments through a monthly newsletter and through a mailing list.

Experience gained from user feedback has prompted the development of two linked enhancements to JUSP that are currently in development. These are:

1. **Identification of titles in the deal within the JR1 report**

We will work with publishers in identifying what titles form part of the various deals offered, in order to assist libraries particularly in identifying which titles shown with nil usage in the JR1 report are actually available to them within the deal. This aims to improve understanding of the extent of real nil usage and so give a more accurate picture of the value of a deal.

1. **Usage patterns of subscribed or core titles**

Within an institutional administration area, libraries will be able to identify those titles for which they are required to maintain subscriptions as part of the terms of a particular deal. Once the library has identified these titles, they can then be marked within the reports in JUSP enabling libraries to look separately at usage of the subscribed titles which would be expected to show the heaviest use. At the same time, libraries will be able to see the extent of use of the extra ‘non-subscribed’ titles provided as part of a deal and so gain a clearer picture of the value of subscribing to the deal as opposed to individual subscribed titles.

These enhancements had the full support of JUSP libraries and we are working with a pilot group of libraries to test them out before a full launch in June 2012.

In the surveys we have conducted with libraries, and in the case study visits, the overwhelming request has been for ‘more publishers’ as exemplified in this response:

*“The more publishers you can get on board the better! Thanks for all your efforts so far, the JUSP portal is already proving to be invaluable to us.” Kate Newell, University of Exeter*

As JUSP has become an important means of gathering usage statistics and helping with usage analysis, libraries want to see it as a true ‘one stop shop’ where they can go for data on all the journal titles they subscribe to. Our primary aim remains to include all NESLi2 publishers and we continue with these negotiations, but we are also looking to extend the range of publishers beyond those offering NESLi2 deals. In order to ensure that the publishers approached were those of most interest to the community, a ‘publisher priority survey’ was conducted in June/July 2011 asking libraries (both those within JUSP and those who have not yet joined) to list up to 10 publishers they would like to see included in JUSP. Replies were received from 59 libraries, and in addition to some major publishers not yet included in JUSP there was a strong demand for the inclusion of certain database services which also include full text journals and offer the JR1. The JUSP team are currently looking at the implications of including journal titles from databases and we hope to have more news on this shortly. We are also looking at some of the smaller publishers identified in the survey that may be of interest particularly to some of the smaller specialist higher education institutions that we hope to include in the JUSP membership over the coming months.

## Where next for JUSP?

Interest from other sectors as well as from overseas consortia has given the JUSP team every confidence that the work it is doing and the approach it has taken to development is sound. Being open source, other groups are at liberty to develop their own version of the service and the development team remain happy to share knowledge and experience with those who choose to move in this direction. Equally, the JUSP team can provide a quotation for the delivery of the service from the UK, leaving interested parties to focus purely on the publisher side of things and ensuring the content that is most important to them and their members is covered.

As JUSP continues to develop and expand as a JISC Collections service, we expect that lessons learned from development of the portal as a service to UK higher education can be successfully applied to the wider library and information community. In presentations we have had expressions of interest from other sectors concerning the concept of JUSP. The methodology developed for JUSP can be successfully applied to other communities interested in the analysis of e-resource usage.

We've been very pleased with the level of support we've had from publishers in joining JUSP and working with us on SUSHI development. We encourage publishers to continue to work with as we introduce new features to JUSP of benefit to libraries.

It is not just online journals that should submit to the rigour of usage and value for money analysis. Databases and, increasingly, e-books, will come under the spotlight as libraries adjust to the reality of the global downturn, and there is no reason why a service like JUSP cannot begin collecting usage data for the many services outside of the journals arena.

JUSP was a long time in the feasibility stage and there was a danger that it would remain no more than a twinkle in the eye of several committed enthusiasts and that its time would pass as commercial equivalents stepped in to plug the gaping hole in provision that existed. Its eventual birth and early years have shown that a shared approach to development, bringing together technical, licensing and commercial expertise from the educational community can produce a service as credible as anything from the commercial sector.

You can find out more about JUSP by visiting the website <http://jusp.mimas.ac.uk/> or emailing jusp@mimas.ac.uk.

1. http://www.jisc-collections.ac.uk/nesli2/ [↑](#endnote-ref-1)
2. http://www.ebase.bcu.ac.uk/ [↑](#endnote-ref-2)
3. http://www.jisc-collections.ac.uk/ [↑](#endnote-ref-3)
4. Conyers, Angela and Dalton, Pete (2005). NESLi2 analysis of usage statistics: summary report. Available at http://www.jisc.ac.uk/uploaded\_documents/nesli2\_usstudy.pdf [↑](#endnote-ref-4)
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6. The COUNTER code of practice Journals and Databases release 3 (2008). Available at http://www.projectcounter.org/r3/Release3D9.pdf [↑](#endnote-ref-6)
7. http://mimas.ac.uk/ [↑](#endnote-ref-7)
8. JISC Usage Statistics Portal scoping study Phase 2: summary report (2010). Evidence Base and Mimas. Available at http://www.jisc-collections.ac.uk/Reports/Usage-stats-scoping-study/ [↑](#endnote-ref-8)
9. http://www.niso.org/workrooms/sushi [↑](#endnote-ref-9)