The E-journals And Their Statistics: As Broad As It Is Long?

Silvia Sastre Suárez.
Virtual Library of Health Sciences of the Balearic Islands. Primary Care Management of Mallorca. (Palma de Mallorca. Spain) ssastre@bibliosalut.com

Virgili Páez Cervi.
Virtual Library of Health Sciences of the Balearic Islands. Balearic Local Health Authority. (Palma de Mallorca. Spain)

Elena Pastor Ramon.
Virtual Library of Health Sciences of the Balearic Islands. Son Llàtzer Hospital. (Palma de Mallorca. Spain)

Ramón Ordóñez Nievas.
Virtual Library of Health Sciences of the Balearic Islands. Son Dureta University Hospital. (Palma de Mallorca. Spain)

Maria Costa Marín.
Virtual Library of Health Sciences of the Balearic Islands. Can Misses Hospital. (Ibiza. Spain)

Aim

It is not a novelty that all libraries want to obtain as many users as possible and for this the hybrid library is going to virtual places. But if we really want to demonstrate this user increase we need statistical information as a guarantee. And also, every librarian needs the statistical data to check that the management results will attain our objectives. There are a lot of reasons to justifying the importance of having true and complete statistical data about our library. On the whole it justifies its existence, and in the specific case of virtual libraries, the high budgets[1]. However probably the most important aid for librarians is to know the user satisfaction and identify their training needs.

In 2008, for all this above-mentioned reasons the librarians of the Virtual Library of Health Sciences of the Balearic Islands began to study the statistical data about contracted electronic resources. We were looking at what they could show us and we asked ourselves if the statistical data of the electronic resources were really useful for virtual library management, and in most cases we immediately noticed that they were not. So to find a solution we proposed to make a detailed analysis of this management area.

In this study we have not analyzed the situation of the technical management of statistical reports of databases because it would be too extensive. But we have studied this topic and we do believe that there are very few solutions on the market to resolve. We wish to invite you to create more data retrieval services because this is the only way to regularly achieve a statistical data library.

Methods

First of all we have looked at all the electronic resources contracted in our virtual library (Table I) in order to collect the statistical data. In this step we did not want to know whether the statistical data obtained was good or bad; only what percentage of electronic resources gave us statistical information. All the electronic resources contracted gave us statistical data use, and for this we made a detailed analysis of them.

ELECTRONIC RESOURCES CONTRACTED

1. BMJ Clinical Evidence
2. BMJ Journals
3. CUIDEN Plus
4. EBSCOHOST
5. Electronic Journal Service (EJS)
6. Elsevier Instituciones – Doyma
7. Embase.com
8. Fisterrae
9. Harrison on –line
10. Images.MD
11. iMedicinas
12. JAMA & Archives
13. MD CONSULT
14. The New England Journal of Medicine
15. OvidSP
16. ScienceDirect
17. UpToDate
18. SpringerLink
19. Science

Table I – *Electronic resources contracted by the Virtual Library of Health Sciences of the Balearic Islands.*

In this moment we stopped to think: How can we analyze the statistical reports of our electronic resources if we do not know what is right or wrong? And we made the first step in our research work; to get information about the bibliometric standards. In this sense the first thing we needed to do was understand The Project Counter[2] (Counting Online Usage of NeTworked Electronic Resources), which appeared in March 2002, as an international initiative serving librarians, publishers and intermediaries by setting standards that facilitate the recording and reporting of online usage statistics in a consistent, credible and compatible way. The first COUNTER Code of Practice, covering online journals and databases, was published in 2003 and was extended further with the launch of the Code of Practice for online books and reference works in 2006. The body of the compliant usage statistics project has steadily grown as more and more vendors have adopted the COUNTER Codes of Practice. This has contributed to the new discipline of bibliometric usage and a great deal of work is underway to try to establish metrics values associated with usage. Also COUNTER are cooperating with a number of organizations to develop a range of usage-related research and services. In 2006 the project carried out research, sponsored by JISC (the UK Joint Information Systems Committee) on the effects of publisher platforms on usage and we are currently collaborating with the UK Serials Group on the possible development of a new Journal Usage Factor metric. This project has also worked with NISO[3] (National Information Standards Organization) on SUSHI[4] (Standardised Usage Harvesting Initiative) to

develop a protocol to facilitate the automated harvesting and consolidation of usage statistics from different vendors.

The Standardized Usage Statistics Harvesting Initiative (SUSHI) Protocol standard (ANSI/NISO Z39.93-2007) defines an automated request and response model for the harvesting of electronic resource usage data using a Web services framework. It is intended to replace the time-consuming user-mediated collection of usage data reports.

The protocol was designed to be both generalized and extensible, meaning it could be used to retrieve a variety of usage reports. An extension designed specifically to work with COUNTER reports is provided with the standard, as these are expected to be the most frequently retrieved usage reports.

The standard is built on SOAP (Simple Object Access Protocol) for transferring request and response messages. The GetReport method is used for transferring ReportRequest as the input message and returning ReportResponse as the output message.

The standard includes a versioned Web Services Description Language (WSDL) to describe the Web service namespace and operations, and a generalized XML schema with the syntax of the SUSHI protocol. Rules for report naming are outlined and complemented by an external reports registry, which provides for the definition of both COUNTER and non-COUNTER reports. The SUSHI Reports Registry provides a listing of the standard report names and releases for COUNTER reports that should be used when implementing the schema (Table II). It also includes a registry of non-COUNTER reports that have been developed to work with the SUSHI protocol. The following table includes XML and Excel sample COUNTER payload files for each report for use in SUSHI testing. Additional files will be added as they become available on the SUSHI webpage[4].

COUNTER Reports & Sample Files						
Name	**Title**	**Description**	**Release**	**XML Sample File**	**Excel Sample File**	**Large Sample File**
BR1	Book Report 1	Number of Successful Title Requests by Month and Title	1			
BR2	Book Report 2	Number of Successful Section Requests by Month and Title	1			
BR3	Book Report 3	Turn ways by Month and Title	1			
BR4	Book Report 4	Turn ways by Month and Service	1			
BR5	Book Report 5	Total Searches and Sessions by Month and Title	1			
BR6	Book Report 6	Total Searches and Sessions by Month and Service	1			
CR1	Consortium Report 1	Number of Successful Full-text Journal Article or Book Chapter Requests by Month	3	*Draft Under Review* counter3_0_ example_cr1.xml		

CR2	Consortium Report 2	Total Searches by Month and Database	3			
DB1	Database Report 1	Total Searches and Sessions by Month and Database	3	*Draft Under Review* counter3_0_ example_db1.xml	R3-DB1-csvexample.csv	
DB2	Database Report 2	Turn ways by Month and Database	3		R3-DB2-csvexample.csv	
DB3	Database Report 3	Total Searches and Sessions by Month and Service	3		R3-DB3-csvexample.csv	
JR1	Journal Report 1	Number of Successful Full-Text Article Requests by Month and Journal	3	*Draft Under Review* counter3_0_ example_jr1.xml	R3-JR1-csvexample.csv	
JR1a	Journal Report 1a	Number of Successful Full-Text Article Requests from an Archive by Month and Journal	3		R3-JR1a-csvexample.csv	
JR2	Journal Report 2	Turn ways by Month and Journal	3		R3-JR2-csvexample.csv	
JR3	Journal Report 3	Number of Successful Item Requests and Turn ways by Month, Journal and Page-Type	3			
JR4	Journal Report 4	Total Searches Run by Month and Service	3			
JR5	Journal Report 5	Number of Successful Full-Text Article Requests by Year and Journal	3	counter3_0_ example_jr5.xml	R3-JR5-csvexample.csv	

Table II – *COUNTER Reports & Sample Files*

After understanding the international situation of bibliometric standards, we began to compare this with the statistical reports offered to us by the electronic resources contracted (Table III). This study was able to tell us whether the statistical reports of our contracted resources were adapted to the *Standardized Usage Statistics Harvesting Initiative (SUSHI) Protocol* standard (ANSI/NISO Z39.93-2007).

		BMJ Clinical Evidence	BMJ Journals	CUIDEN Plus	EBSCOHOST	Electronic Journal Service	Elsevier Ins. – Doyma	Embase.com	Fisterrae	Harrison on –line	Images.MD	iMedicinas	JAMA & Archives	MD CONSULT	NEJM	OvidSP	Science	ScienceDirect	UpToDate	SpringerLink
DATABASE REPORT	Total Searches and Sessions by Month and Database				■									■		■		■		
	Turnaways by Month and Database				■									■		■		■		
	Total Searches and Sessions by Month and Service				■											■		■		
JOURNAL REPORT	Number of Successful Full-Text Article Requests by Month and Journal				■								■		■	■	■	■		■
	Number of Successful Full-Text Article Requests from an Archive by Month and Journal															■		■		
	Turnaways by Month and Journal															■		■		
	Number of Successful Item Requests and Turnaways by Month. Journal and Page-Type												■		■	■	■	■		
	Total Searches Run by Month and Service												■		■	■	■	■		
	Number of Successful Full-Text Article Requests by Year and Journal															■		■		
Do NOT follow COUNTER standard		▮	▮	▮		▮	▮	▮	▮		▮	▮							▮	
NOT provide any statistical data										▮										

Table III – *COUNTER Reports of electronic resources by Virtual Library of Health Sciences of the Balearic Islands.*

Results

We observed different criteria in data collection, or the lack of them in some cases. Only two platforms: OvidSP and ScienceDirect are adapted to the international bibliometric standards; even in the case of e-books, although these regular recurrences are not established in the protocols. It is also curious that Elsevier-Doyma, a Spanish publisher but associated with the big Dutch publishing group Elsevier (that is the same owner as ScienceDirect) gives us statistical reports but completely different from those

standardized in the SUSHI protocol. The Elsevier-Doyma statistical reports do not give data that is useful for library management, but only offer the number of view articles per month. This data is completely insufficient for library management and is not what you expect when you buy this expensive database.

For instance the research results (Figure 1) are really distressing because only 10.53% of the electronic resources contracted by the Virtual Library of Health Sciences of the Balearic Islands are fulfilling the standards of the COUNTER project. While 31.58% are fulfilling it in some way. We think that if we could upgrade this 31.58% to adequate then we would have 42.11% in total adequacy, and would have made a little step towards the ideal 100% adaptation.
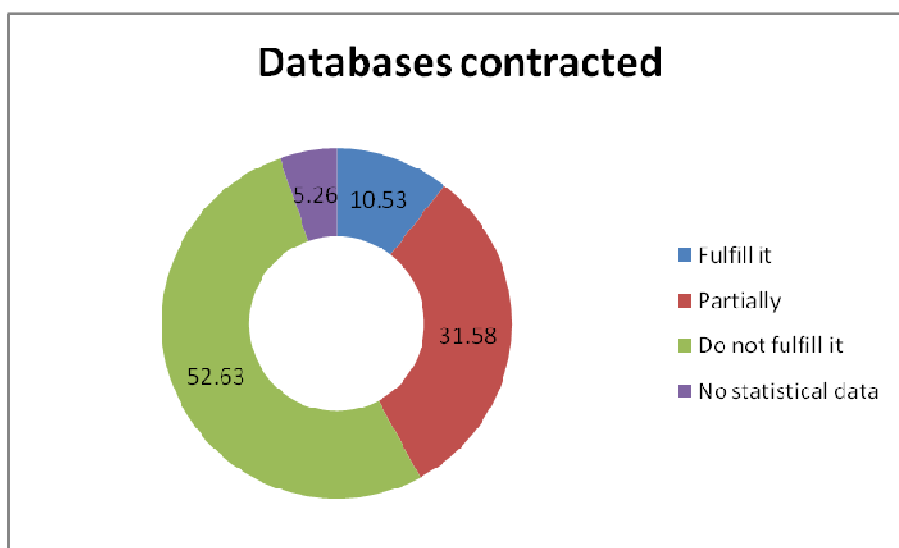
Adequacy to the SUSHI protocol 1

Figure 1 – *Percentage of adequacy of the databases contracted by the Virtual Library of Health Sciences of the Balearic Islands to SUSHI.*

Discussion

Throughout this paper we have been supporting the importance of obtaining quantitative quality indicators of the contracted resources, because this is the only way to achieve statistical indicators like the cost-per-article that are basic to the negotiations with the distributors. But we can see that in most cases they do not give us this information. Thus, in this situation we have to ask ourselves the following questions: Should we expect the distributors to give us the data we need? Are we entitled to this information when we subscribe to a product? And after posing them; do the COUNTER reports give all the information that we need to manage our virtual library? After our research into e-journal statistics, we had a clear answer about the first two questions, but we had to rethink the last.

It is true that with good COUNTER reports we have the quantitative indicators that we need to manage the collection, but we have not thought about the qualitative ones. What happens with the adequacy of the collection to the user needs? At this moment we think that it is essential never to forget our obligation to carryout, satisfaction questionnaires,

as this is the only way to achieve a good collection, which satisfies the user needs. This is the way to really know the library uses and the user profile. There are a lot of library studies about user satisfaction with e-journals; the majority of them from University Libraries[5]. They demonstrate that: "the implications of university library users in research (75%), as against teaching (41%) is the best indicator of e-journals use" We think it is very important that in world of health science libraries we begin to make these kinds of bibliometric studies to know what is the user activity, and, as a result, what are the information user needs. As this is the only way to achieve a good collection adapted to our needs. Babini et al.[1] say "As in almost all the activities the virtual libraries make, the statistical analysis of users and movements is also an experimental field that it is in full swing. The most important thing is to share this with others librarians and jointly create the best indicators and tools to improve the services offered via web to library users".

Conclusions

After studying the situation in library statistical management[6-9], we believe that librarians have a lot of work to achieve complete and qualitative statistical indicators. And we need to restate the traditional management library concept; if we want to manage our library well, we need to evaluate this.

The non adaptation of the majority of electronic resources at the SUSHI standard protocol is a serious problem if we consider that we have been talking about electronic journal usage statistics since around 2002. We consider that this is enough time for editor adaptation. Now is the moment for librarians to reclaim our rights as database clients. So we believe we must open this debate to the our scientific librarian community, work together and join forces.

References

1. Babini D, Vergara F, Archuby G. Estadísticas de usuarios en una biblioteca virtual. El caso de la biblioteca virtual de la red Clacso. Prof Inf. 2007 [cited 2010 Apr 1];16(1):57-61. Available from: http://elprofesionaldelainformacion.metapress.com/media/b0ppnvuxulq9a1t79trn/contributions/6/q/u/4/6qu49chmh2w7kk37.pdf.

2. COUNTER: Counting Online Usage of NeTworked Electronic Resources. [Internet]. [s.l.]: Project COUNTER; 2009 [cited 2010 Apr 1]. Avaliable from: www.projectcounter.org.

3. NISO: How the international world CONNECTS [Internet]. [s.l.]: National Information Standards Organization; c2010 [cited 2010 Apr 1]. Available from: www.niso.org.

4. NISO: How the international world CONNECTS [Internet]. [s.l.]: National Information Standards Organization; c2010 [cited 2010 Apr 1]. Standardized Usage Statistics Harvesting Initiative (SUSHI); [about 16 screens]. Available from: http://www.niso.org/workrooms/sushi/.

5. Borrego A, Anglada i de Ferrer LL, Barrios M, Comellas N. Uso y usuarios de revistas electrónicas en las universidades catalanas: resultados de una encuesta. J Acad Libr. 2007 [cited 2010 Jan 14];33(1):67-75. Avaliable from: http://www.recercat.net/bitstream/2072/3716/3/0609Article_JAL_RECERCAT_Spa.pdf

6. Borgman C, Larsen R. ECDL 2003 workshop report: digital library evaluation–metrics, testbeds, and processes. D-lib Mag [Internet]. 2003 [cited 2010 Jan 12];9(9): [about 1 p.]. Available from: http://www.dlib.org/dlib/september03/09inbrief.html#BORGMAN.

7. Kidd T. Electronic Journal Statistics: present practice and future progress [Internet]. In: Statistics in Practice – Measuring & Managing. Proceedings of the IFLA Satellite Conference; 2002 Aug; Leicestershire, UK. Leicestershire, UK: Loughborough University; 2003 [cited 2010 Feb 15]. LISU Occasional Paper No. 32. p. 67-72. Avaliable from: http://www.lboro.ac.uk/departments/dils/lisu/downloads/statsinpractice-pdfs/kidd.pdf.

8. Kidd T. Electronic journal usage statistics in practice. J Ser Community. 2002;15(1):11-7.

9. Walker M. E-resources statistics: what to do when you have no money. J Electron Resour Libr. 2009; 21:237-50.