

The Biomedical Research in Italy and the role of BIBLIOSAN. Outcomes and perspectives of the Italian biomedical libraries network after 15 years of its constitution

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Abstract: BIBLIOSAN is a system funded in 2003 by the Italian Ministry of Health and whose aim is to achieve a cooperative network amongst more than 60 libraries of the Italian biomedical research institutes and hospitals. The paper aims to provide an overview of the most relevant issues faced during the past 15 years, on the ways to deal with them and on the adopted solutions. The network is now able to assure a shared catalogue of the collections owned by each partner, a tested and efficient system for the exchange and delivery of documents and articles, the organization of a relevant number of e-learning and on-site training courses for users and librarians and overall to guarantee the subscriptions to about 10,000 e-journals published by all the most important scientific publishers such as Elsevier, Wiley, Nature publishing Group, etc. A rapid glance to the possible future evolutions and improvements of the system will be also provided.

Keywords: Research Library, Library Management, Library Network, Cooperation, Consortia, Document supply

1. Introduction

When in 2003 Bibliosan – the library system funded by the Italian Ministry of Health – was established very few people thought that after 15 years it would become one of the most important and successful initiatives in the Italian library world. It began as a pilot project which purpose was to build a national network involving all the research institutes and hospitals directly controlled by the Ministry. Then the system grew steadily over time and it has now become the focal point of biomedical research in our country. In the beginning a first group of experts was appointed with the task of setting up a project and funding of 200.000 euros allocated. The main goal was to start up a cooperation and integration process involving about 45 libraries with the scope to fulfil the enhancement of services for the final users and to rationalize the purchase of documental resources.

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The first steps of the project were to carry out a single and shared catalogue of the journals owned by all libraries and a managed system for document delivery and loans. Due to the limited funding available it was decided to subscribe two agreements with the existing national serials catalogue (ACNP) and NILDE (Network Inter Library Document Exchange) the Italian network for interlibrary loan. Special functions and data subsets were arranged on the two platforms to facilitate the retrieval of information and data regarding Bibliosan libraries. The good results achieved in these two field of cooperation demonstrated both the validity of the project and the organizational capacity of the board and convinced the Ministry to move forward with the project facing the main goal, that establish a consortium for the purchase of shared electronic journals.

2. From project to system

At the end of 2005 Bibliosan concluded the project phase and evolved into a consolidated system. A management Committee of 9 members - representing all types of institutes involved - was established to define policies and to face the challenges required by the new system. A budget of 1 million euros for the first year, rapidly doubled for the following years, was funded by the Ministry of Health. Being able to rely on a constant and certain financing has allowed to start planning the realization of a network, acquiring and sharing documental resources and maintaining them over time, stabilizing and ensuring continuity to the system. On this basis and according to the inspiring principles of cooperation, sharing, harmonization and tangible results to achieve, all the following activity were conducted until now, during 15^t years of continuing engagement and facing and solving several problems.

First step of this new phase was to recognize the journals subscriptions (at the time largely in paper) of each partner, pointing out the overlapping of titles and, conversely, those titles owned by a single library. This activity allowed us to identify both the fields of greater interest and those where duplications had a critical impact in terms of expenditure and waste. A series of decisions were adopted:

- it was decided to switch massive from paper to electronic format
- the big deal contract model was applied where possible
- access to the resources was assured via IP address for all partners.

The consortium strategy immediately allowed the financing Ministry to appreciate the evident advantages that it entails: significant spending economies, centralized management of negotiations, coordinated and agreed purchases. Researchers had: an exponential increase of available titles, the possibility to directly access and download articles both at their institutes and remotely, no need to personally visit libraries for consultation, better performance in document delivery services through the NILDE system of documents not directly available online.

The birth of the network produced a real revolution in the world of biomedical research in our country because suddenly the researchers had direct access to about 5.000 online journal titles. For a correct assessment of the impact generated by this innovation we must consider that before the start of Bibliosan the National Institute of Health, that was the biggest partner, had 1,730 current journals subscriptions, while many of the other institutions had only a few dozen titles in their journals catalogues. Starting from 2005 researchers of all institutes involved in the system had the same opportunities to directly access the shared resources.

3. System developments

In the following years several publishing groups and databases have been added from the first set of publishers available since 2005 and also the number of partners increased reaching in the current year 65 institutes.

The best way to follow the Bibliosan evolution over the years is to compare some statistical data concerning the use of services and resources.

Resources: in the following tables and diagrams we can see the rapid and continuous growth of the use of journals, database resources and services.

The available resources actually are:

BIBLIOSAN	AVAILABLE RESOURCES
ASM (AMERICAN SOCIETY FOR MICROBIOLOGY)	11 Journals
BMJ	BMJ Journals, Best Practice, Clinical Evidence, BMJ Learning, Martindale
CLARIVATE ANALYTICS	WOS, Journal Citation Reports, EndNoteWeb
COCHRANE LIBRARY	Database
EBSCO HOST	CINAHL Complete
ELSEVIER	Science Direct Freedom Collection, Scopus, EMBASE
FACULTY 1000	Database
JAMA	Jama & 9 Archives Journals
MARY ANN LIEBERT	64 Journals
NPG(NATURE PUBLISHING GROUP)	80 Journals
NEJM	The New England Journal of Medicine
	139 Journals
OUP (OXFORD UNIVERSITY	Biological Science Database, British

PRESS)	Nursing Database, Health Research
PROQUEST	Premium collection, Family Health
	Database, Health & Medical
	Collection, Health Management
	Database Medline®,Nursing & Allied
	Health Database, Psycology
	Database, Public Health Database,
	International Pharmaceutical
	Abstracts (IPA), PIVOT
	Database
	164 Journals
REFWORKS	1300 Journals
SAGE	
WILEY / BLACKWELL	

Fig. 1

The table with number of total articles downloaded year by year shows as, starting from a basis of just over half million, the system reaches more than 3,2 millions of downloads in 2017:

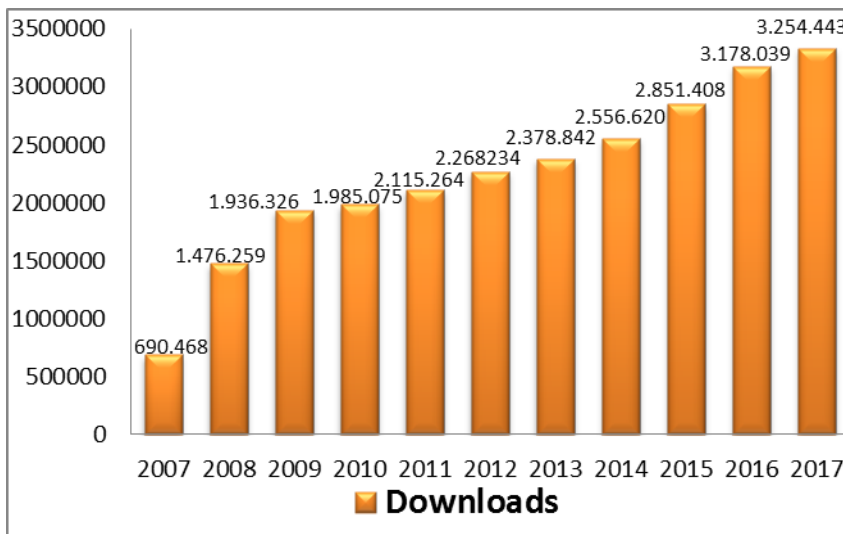


Fig. 2

As regards the use of Databases, we must highlight the peak of the last two years, mainly due to the introduction of Scopus and of new criteria in the research evaluation platform of the Ministry of Health:

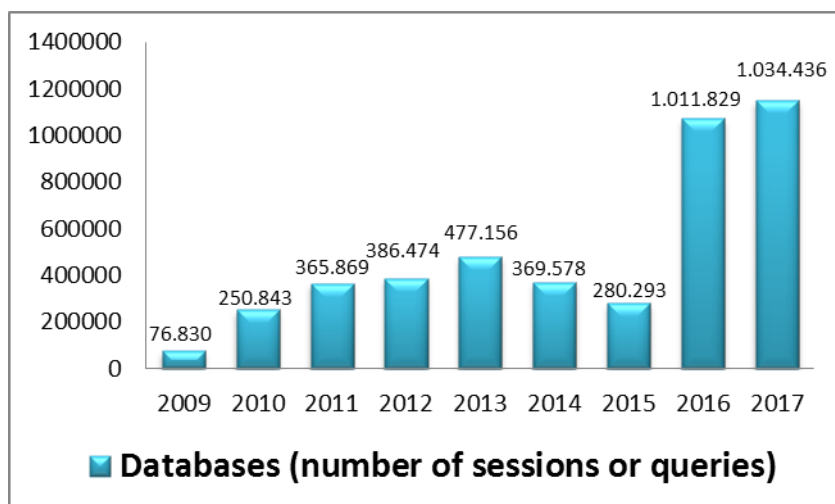


Fig. 3

Learning: user training and learning is one of the focal points in order to assure the success of the system and the best use of available resources. This strategic activity was strongly encouraged even if not all entities involved in the network have assured the same level of participation. Despite the need to improve the performance of some partners, nevertheless the results achieved in this field witness the interest and importance for researchers to correctly manage different platforms and products. The correct setting of a research profile is definitely fundamental for obtaining accurate and limited results and training is strategic in this process.

Bibliosan contributes also to the national update program for health personnel (including physicians, nurses, physiotherapists, etc.) called ECM (Educazione Continua in Medicina - Continuous Learning in Medicine) and several courses and seminars issue credits necessary for all these categories of health workers. From 2016 to 2018 a collaboration with BMJ was also established to give access to over 6,000 online courses about 12 different themes for physicians and other biomedical professionals.

COURSES, SEMINARS, WEBINARS, ETC.				
YEAR	N. EVENTS (ECM/CEM)	N. LEARNERS	ECM/CEM CREDITS	N. INVOLVED INSTITUTES
2007	13 (11)	500	84	12
2008	39(27)	1221	228	16
2009	63 (23)	1746	179	20

2010	68 (17)	1554	119,5	29
2011	85 (19)	1620	194,4	18
2012	109 (21)	2323	203,3	24
2013	149 (50)	2977	439,5	28
2014	190 (52)	3866	439,5	37
2015	186 (37)	3621	491,1	35
2016	170 (45)	5781	394,3	41
2017	176 (41)	4411	344,2	32

Fig. 4

Document Delivery: also the data concerning the DD service show the importance of this tool and the relevant impact of Bibliosan inside the National network for exchanging documents. In 2017 more than $\frac{1}{4}$ of total exchanges among all 855 libraries involved in the national system have been made by the 65 libraries of the Bibliosan consortium. The slight decline in the last two years is due to the purchase of many new resources by Bibliosan which have limited the need to request articles from other structures.

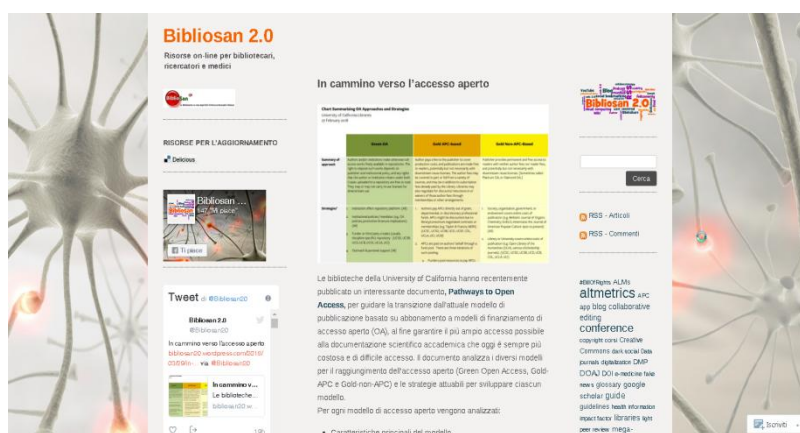
DOCUMENT DELIVERY			
YEAR	N. REGISTRED USERS	N. DOCUMENTS EXCHANGED	% BIBLIOSAN EXCHANGES IN THE WHOLE NETWORK
2004	-	22.900	40,9%
2005	-	39.054	45,1%
2006	-	38.944	40,7%
2007	754	44.942	39,6%
2008	1.963	48.753	39,6%
2009	2.969	50.146	36,1%
2010	3.738	56.892	35,6%
2011	3.933	54.282	32,2%
2012	4.508	61.265	30,2%
2013	5.358	62.996	28,7%
2014	5.806	64.733	27,5%
2015	6.627	64.446	28,4%
2016	7.231	55.884	26,1%
2017	7.668	48.169	25,7%

Fig. 5

A new contract model: one of the most relevant issues that Bibliosan faced since its start was the impossibility – due to the insufficient funding by the Ministry – to centralize the contracts with the three biggest publishers, that are Elsevier, Wiley and NPG (Nature Publishing Group). As already mentioned,

Bibliosan has adopted since its origin the ‘big deal’ model for its agreements with publishers. This allowed our researchers to have direct access to the whole titles collection of all the publishers under contract. However with the annual funding assigned to Bibliosan it was impossible to bear the costs of the contracts with the most important publishing groups. As a consequence, the assumed model for these categories of publishers was an hybrid model, with a shared cross access paid by Bibliosan and the obligation to maintain and pay their subscriptions charged to the singles institutes. Starting from 2018 this old and obsolete model was replaced by a new one which provides a centralized payment directly managed by Bibliosan and funded by a withdrawal (about 3%) from the annual sum allocated by the Ministry for research activities. The system has now achieved three goals in one go: a management simplification, a reduction of costs and the stability of the main contracts. Only for the current year (2018) a total saving of over 0.7 million euros has been calculated.

Parallel projects: two new projects were started in 2012 with a small yearly funding of 40.000 euros for 2 grants addressed to 2 young librarians. The first one developed in a project named Bibliosan 2.0 and envisaged the realization of a website where librarians could find useful resources for professional updating and ideas to improve new services to users; the nucleus of the site is a blog weekly updated with general interest news and also the links to the most used social media such as Facebook, Twitter, Delicious an others are activated.



The second project, called S&I Bibliosan, has realized a monthly newsletter that collect news from all over the world about publishing, research, librarianship and professional training.



Dal mondo della ricerca

Science

Ricercatori, università, agenzie di finanziamento e riviste dovrebbero fare molto di più per garantire la riproducibilità della ricerca scientifica, secondo un nuovo rapporto pubblicato dalla Royal Netherlands Academy of Arts and Sciences (KNAW). Il gruppo KNAW, presieduto da Johan Mackenbach, ricercatore di salute pubblica presso l'Erasmus Medical Center di Rotterdam, nei Paesi Bassi, formula numerose raccomandazioni per migliorare il rigore dei documenti scientifici originali e sostenere gli scienziati che conducono repliche di ricerche precedenti. Sarebbe necessario un maggiore scrupolo nella fase di progettazione della ricerca e nell'analisi statistica, le riviste dovrebbero richiedere agli autori di registrare i report in anticipo in modo che il protocollo di studio e il piano di analisi siano bloccati prima che inizi la raccolta dei dati e gli scienziati dovrebbero essere incoraggiati a memorizzare metodi e dati nei repository per aiutare altri gruppi a riprodurre esperimenti. <http://bit.ly/2nvlp5G>

The two projects are still currently running and constantly updated.

The workshops: one of the most awaited initiatives by librarians and researchers is the annual Bibliosan Workshop. At the beginning of December of each year the management Committee organizes a one day workshop illustrating the correct use of new resources or facing one of the coolest and trending topic of the moment. For example, the topics of the last three workshops were: Training in the Library: suggestions for an effective communication (2015), The Library in your pocket. Apps and libraries: opportunities and critical issues (2016), Hunters of frauds: [it is a word pun for poachers...] reflections and actions for an ethics of research (2017); the last one is about fraud in scientific literature and the importance of prevention and fighting it.



The Working Groups: since its origin Bibliosian has instituted some working groups in order to analyse and give answers and have feedback on some of the most relevant aspects and topics concerning the scientific community from the point of view of librarians and final users of the system. Some examples of the themes faced are: Assessment of Bibliosian partners performances, Web 2, Catalogue of electronic resources, Users service charter. The last group activated in 2016 is called BISA (Bibliosian per la Scienza Aperta), which deals with the open science paradigm and aims to support researchers in all activities connected with this, from open access publishing to the management and storage of research data, till the definition of a national policy for the treatment of these data.

4. Future Developments and Conclusions

The remarkable results achieved should not be considered a point of arrival but only as a starting basis to consolidate the functioning of the system and to constantly improve performance and services. The most important goals to pursue must be:

- to always add new resources through further agreements with the most remarkable publishers;
- to get better performances in those institutes which lack some aspects such as response time in document delivery or the learning courses organization;
- to improve the network of local institutional web sites for spreading information and services;
- to promote the institution of a national repository for the biomedical research articles and the definition of a national policy for the research data treatment and diffusion.

In the articulated panorama of Italian biomedical libraries, Bibliosian is now representing a fixed point of unmissable importance for the new information

needs of the research world and a guide for users to correctly manage the complex tools that society and IT constantly develop.

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