Global Library Statistics

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Abstract

When IFLA needed reliable data about libraries and their services worldwide, it became apparent that there are no such data. Therefore, the IFLA Section on Statistics and Evaluation, the UNESCO Institute for Statistics and the International Organisation for Standardisation (ISO) committee TC 46 SC 8 'Quality – statistics and performance evaluation' have joined forces in order to develop and test a new set of statistics that might be used by libraries worldwide. The final goal is that these statistics should be collected regularly on a national basis, so that there will be reliable and internationally comparable data of library services and library use.

Keywords: library statistics; impact of libraries; international standards; performance indicators

The Starting Point

The initiative started at IFLA 2004 in Buenos Aires when the IFLA President and President-elect visited the Statistics and Evaluation Section. They needed library data for the World Summit on the Information Society and asked the section to identify 'robust' global library statistics for that purpose. But there are at the moment no such statistics.

A study undertaken by Teresa Hackett for IFLA prior to the Geneva round of the World Summit on the Information Society, and compiled primarily from UNESCO and LIBECON data, had already revealed the incompleteness and weakness – and the diminishing relevance – of the available library statistics.[1]

The UNESCO Division of Statistics published three series of library statistics on a rolling triennial basis: national libraries, other major non-specialized libraries and public libraries. The most recent (as of September 2005) was Libraries of Institutions of Tertiary Education, 1996–2000. The basis for UNESCO's collecting activity was the Recommendation Concerning the International Standardization of Library Statistics adopted by the UNESCO General Conference in 1970. The data which were gathered emphasized collections, buildings and simple usage figures. But the pervasiveness of electronic information resources has reduced the ability of such traditional statistics to reflect the provision of information to the world's citizens. The traditional statistics are also not best suited to demonstrating the impact and outcome of libraries.

The LIBECON project, undertaken by the UK Institute of Public Finance with funding from the European Union, provided more detailed information for Europe and included figures from a few countries outside Europe. In addition to the UNESCO data, it collected data on, among other things, virtual usage, seating, workstations and sources of funding. Although the results of the project are maintained on the LIBECON website[2], the project itself is now finished and not likely to be renewed.

So, considering that the existing data were out-dated, insufficient, and in any case not up-to-date, the IFLA Section on Statistics and Evaluation decided to pursue new reliable 'global' library statistics – certainly a long way to go. The first step was a grant from IFLA for an initial meeting of section members with the UNESCO Institute for Statistics in Montreal in January 2006.

The Programme

When designing the projected set of 'global' library data, various interests and requirements had to be considered. IFLA's main interest in statistics is to show the overall value of libraries for society, while the UNESCO Institute for Statistics focuses on libraries' role for literacy and information literacy in a country and underlines the importance of allowing for problems of data collection in developing countries. The ISO group as third partner stresses the need of standardized definitions and data collection methods.

Thus, from the very first, the demands on the new statistics showed a broad spectrum:

- to cover the full range of library services, traditional and electronic
- to show the libraries' role in society and culture
- to demonstrate the impact of libraries on the population
- to facilitate comparison on a national and international basis
- to produce plausible results for publications and promotional activities
- to do all that with a limited number of measures, that ought to be easily available in all countries.

In addition, two diverse targets of library statistics had to be considered in the selection of 'global' measures.

1. Statistical data at the level of the individual library are indispensable for the internal management. They show the relation of input and output and therewith the effectiveness and cost-efficiency of the library.
2. A compilation of library statistics on a regional or national level aims at promoting the libraries' role and activities and justifying public expenditure for libraries. Regional/national statistics, when presented to policy makers,

funding institutions or the general public, will influence the strategic planning for libraries, and will create and maintain confidence in the effective functioning of libraries. By setting data of library usage in relation to literacy and education in a country, statistics can even demonstrate the impact of libraries on the population.

For the goal of 'global' library statistics, only such measures have been considered that are meaningful if compiled on a national basis.

It was evident that finding a dataset that would comply with all these issues could not be an easy task.

The Long Way

The IFLA Section on Statistics and Evaluation instituted a project group of section members for getting in contact with the UNESCO Institute for Statistics in Montreal. Members are:

- Michael Heaney, Oxford (till 2007 Chair, now Secretary of the Section)
- Pierre Meunier, Montreal (responsible for the contacts in Montreal)
- Roswitha Poll, Münster (Chair of ISO TC 46 SC 8, responsible for the cooperation with ISO)

The first project meeting was in January 2006 in Montreal. The UNESCO Institute was represented by Simon Ellis ((Head of Science Culture and Communications Statistics) and his colleagues Lydia Deloumeaux and S. Venkatraman. There was consensus on the following issues:

- to proceed in the direction of a minimum statistical dataset
- to restrict the project to public and academic libraries (it was deemed too daring to believe in the feasibility of collecting school or special libraries' statistics worldwide)
- to rely on the pool of well-tested and precisely defined statistics available in the international standard ISO 2789.[3]

The meeting produced a first list of possible measures, which Roswitha Poll was commissioned to take to the appropriate ISO group for further work. The ISO meeting in May 2006 resulted

in a detailed list with definitions, based on the international standard ISO 2789. The list was then discussed and enlarged or shortened (as such lists usually are) in the IFLA Section's meeting in Seoul in August 2006.

In a second meeting of the project group in January 2007 in Oxford, the partners decided to test the dataset in Latin America and the Caribbean and to present the results in an IFLA post-conference in Montreal in 2008. The group also devised a list of performance indicators, setting the measures in the dataset in relation to socio-demographic data collected by the UNESCO Institute and other international agencies.

The next months were spent on preparing the trial in Latin America and the Caribbean.

The Trial

The first step for a scoping study in Latin America and the Caribbean was to assess

- what library statistics were already collected in the countries
- what institutions could be addressed for filling out the statistics questionnaire.

At first sight, it seems easy enough to do this, but it proved one of the most problematic tasks of the project to find out which unit in a country is collecting what library statistics.

Libraries are not all under the same authority. Most of them serve a specified institution (university, college) or community and are funded by those institutions or communities, but also by ministries, private organizations, foundations . . . Other institutions may be responsible for the mission, functioning, or legal regulation of libraries in their domain. Therefore various institutions and organizations will feel responsible – if at all – for collecting data about the libraries within their authority. Libraries' and librarians' associations also are often involved in library statistics.

Thus, in every country, the following bodies might be engaged in collecting library statistics, often separately for different types of libraries:

- national or regional statistical units
- ministries (culture, education, research)

- libraries' and librarians' associations.

It may even happen that the same, or nearly the same statistics are collected by different bodies.

For the projected survey in Latin America and the Caribbean, a contacts database for library statistical information was compiled from manifold sources. This did not include individual libraries, but those units which were known or could be expected to collect library statistics on a national scale. Information from IFLA colleagues in the region was a valuable contribution to the compilation of the contacts database.

A questionnaire asking for the defined dataset was prepared in English and Spanish and sent out in July 2007 to the countries. Data collection and analysis took place during the second half of 2007 and early 2008.

The response rate was 63 percent: 26 out of 41 countries responded to the survey, including a nil response from Bolivia.[4] Such a response rate is not unusual for a new international survey, as national authorities may not currently be collecting data in the area under study.

There was a clear difference between public libraries and academic libraries (libraries of an institution of higher education): 24 countries were able to answer at least part of the questions for public libraries, but only 14 had statistics about academic libraries.

The responses to the individual questions varied considerably. Data were more readily available for 'traditional' statistics (e.g. volumes, seats, registered users, loans) than for items such as electronic resources, events, opening hours, full-time equivalent library employees and expenditures.

The survey demonstrated the difficulties of organizing a sustainable system of data collection in all countries of a region, but it also showed the feasibility of using the global statistics questionnaire. There was a reasonable response for most questions and an apparent willingness to collect additional data, e. g. for electronic collections. Only a few questions had to be deleted from the questionnaire due to the survey results. One example was the FTE (full-time equivalent) count of library staff. Evidently headcounts of staff are in such widespread use at the moment that it is better to use this measure.

The Montreal Conference

Very early during the global statistics project, there was consensus to present the new measures and the results of the trial in a conference at Montreal, the location of the UNESCO Institute for Statistics. The IFLA World Library and Information Congress being held in Québec City in 2009 made this choice still more opportune. The topic of the conference was widened to include the use of quantitative and qualitative data for the management and promotion of libraries.

The IFLA post-conference 'Library Statistics for the 21st Century World', held from 18–19 August 2008, attracted 83 experts on library statistics and quality measures. The conference showed high interest in the new 'global' statistics and a broad assent to the dataset that has been developed. There were only a few comments and requests for changes in the proposed measures, but the reports from countries that had participated in the trial showed the many difficulties of centralized data collection.

The papers and results of the conference will be published shortly in the IFLA Publications series.

The Dataset

The 'global statistics' dataset in its final version consists of 23 measures (see Annex 1). The same data are collected separately for academic and public libraries, though some of the measures will have higher value for one type of library.

The first questions deal with the **accessibility** of libraries in a country. The number of libraries and user working places, and the opening times (arranged in five groups) demonstrate the physical accessibility, the library as place. The percentages of libraries that offer an online catalogue, a library website and – most important – Internet access for users in the library show the virtual availability of library services.

The library **collection** is still primarily represented by the number of volumes, as this measure is used in all types of libraries worldwide. But new measures for the electronic collection have been added: the number of e-journal subscriptions, of e-books and databases. While it is easy to count the print collections that are housed inside library buildings, counting the electronic collection needs more detailed definitions. Electronic library collections include documents stored on external servers, for which the library has bought or licensed access rights, but exclude documents that are freely available on the Internet.

When selecting measures for the **usage** of library services, the main problem was to find a measure for the electronic use that hopefully can be collected in all countries. Statistics for the number of loans, of registered users and even of library visits are pretty well established in libraries. But though in most libraries electronic collections and services are developing rapidly, statistics for the use of such collections and services are not yet in widespread use. The measure that was chosen for representing electronic use – number of downloads from the library's electronic collection – could not yet be delivered by many countries in the trial of the global statistics, but the project may encourage more libraries to count downloads as well as loans.

The **input** into libraries is represented by the number of employees and the libraries' expenditure, differentiated as to expenditure for information provision, staff, and other. The trial showed that more countries were able to deliver data for the number of staff in headcounts than in FTE (full-time equivalent), therefore headcounts were finally chosen as the measure.

An important aim of the global statistics project is to find data that show the libraries' **outcome** on society, especially on culture, literacy and education. The measures that come nearest to showing such outcome are the number of cultural library events and the number of attendances at user training sessions.

Only one measure was added due to proposals during the Montreal conference: hours of training per staff member per year. This measure represents the libraries' **potential for development and change**.

Libraries have assumed new responsibilities in a changing information world; they need new statistics for managing and promoting these new tasks. The projected new statistics try to consider all issues that are relevant for the role and impact of libraries today. Hopefully, the set of 23 data, if

used over time, will yield a reliable picture of library services and library use in a country.

The aim is that the questionnaire should be dealt with and filled out by the respective institution in each country that is responsible for collecting library statistics.

The Derivation of Performance Indicators

The proposed global statistics include only a limited number of data in order to make them practical and easy to use. But quite a number of performance indicators can be calculated with these data, especially in combination with sociodemographic data collected by UNESCO and other international agencies, e. g. data about the state of literacy, education and Internet access in a country. Such combinations can help to identify and promote the libraries' role for literacy and information literacy, education and culture.

Seventy-six performance indicators were identified during the project, of which 23 were defined as core indicators (see Annex 2).

The Next Steps

The first phase of the global statistics project has been brought to an end by the definition and trial of the proposed dataset and by the promotion of the project results at the Montreal conference. But how to proceed from here?

The project partners, when deciding on the final dataset for the new library statistics, did not expect that even this restricted number of measures would be directly available in all countries. Even in countries with high IT-development, measures for electronic library services are partly missing.

There are several issues that influence the adoption of the new global statistics in countries:

1. National or regional institutions collecting library statistics have often devised their own special statistics or have at least adapted and changed data and definitions from the ISO standard. Many library statistics have 'a historical background', and libraries have been familiar with them for a long time. It will be difficult enough to get consensus on a national scale on new library statistics. Every library is unique – or thinks so; no definition of data, no list of statistical measures will fit them all.
2. As the trial in Latin America and the Caribbean showed, there may also be a lack of experience and skills in the collection, evaluation and use of library statistics.

Phase II of the project must therefore focus on building statistical capacity in target regions, especially in developing countries, so as to enable staff to collect data more thoroughly and with more understanding. Additionally, the project must seek support and acceptance in the international community. This shall be advanced by developing training materials and by promoting the global statistics in international arenas. The outcomes will be:

• training resources
• published standards
• policy statements and commitments.

The target regions for the next steps are Asia and the Pacific and Latin America and the Caribbean – the latter to build on the experience of the questionnaire in that region.

Capacity building will be delivered in conjunction with partner organizations and funding is sought to deliver this. It will not be sufficient to gain the interest of librarians; it is crucial to gain the interest of governments and funding institutions. It does not seem plausible that, though libraries of all types certainly need considerable resources, the institutions that give those resources should not want to know the results of their expenditure.

It is certainly a long way from preparing a questionnaire for global library statistics to the adoption of these measures by libraries and to centralized data collection in the countries. Reliable global library data are still a vision. But libraries need this global view of their role and value for promoting and supporting their impact on literacy and information literacy, education and culture.

References

1. Hackett, T. (2003) *Global library statistics 1990–2000.* Available at: http://www.ifla.org/III/wsis/wsis-stats4 pub_v.pdf

2. http://www.libecon2000.org
3. ISO 2789. (2006) *Information and documentation – International library statistics.* 4th ed.

4. IFLA/ISO/UNESCO Institute for Statistics. (2008) *The 2007 international library survey in Latin America and the Caribbean.* Available at: http://www.uis.unesco.org/template/pdf/cscl/IFLArept.pdf

Annex 1. Global library statistics

All data to be collected separately for public libraries and higher education institution libraries

1	Libraries: Access and facilities	6 questions
1.1	Number of libraries	
1.2	Number of user workplaces (seats)	
1.3	Weekly opening hours • less than or equal to 20 • 20 to 40 • 40 to 60 • over 60	
1.4	Electronic services by type (percentage of libraries offering these services) • Internet access for users • online catalogues • websites	
2	Collection	4 questions
2.1	Number of volumes	
2.2	Number of electronic collections by type • electronic serials (subscriptions) • ebooks (titles) • databases (purchased or licensed)	
3	Library activities and events	2 questions
3.1	Number of events	
3.2	Total annual attendance at user training sessions	
4	Library use and users	
4.1	Total registered users	
4.2	Loans and usage • number of loans (without renewals and ILL) • number of downloads from the e-collection • number of visits	
5	Library staff	3 questions
5.1	Number of employees (headcounts) • of which female	
5.2	Hours of training per staff member	
6	Expenditure	4 questions
6.1	Expenditure • total operating expenditure • staff costs • expenditure on literature and information • other costs	
		23 questions

Annex 2. Core performance indicators

The 23 indicators are calculated with data from the global statistics dataset and the following socio-demographic data of a country:

• Number of inhabitants
• Number of literate inhabitants
• Number of students in higher education

Setting data in relation not to the whole population, but to those inhabitants that are literate, may help to identify correlations between library use and literacy. The idea is that a higher number of public libraries, their collections and services, and a high amount of library use may have influenced the percentage of literate inhabitants in a country.

Of the 23 indicators 15 refer to public libraries. This is due to the double relation to total inhabitants and literate inhabitants, but also to the fact that the role of libraries for society is more clearly visible in public libraries.

Section	Core indicators
1. Access and facilities	– Average number of public libraries per 1000 inhabitants – Weighted average **opening hours** for public libraries – Average **opening hours** for higher education institution libraries – Percentage of public libraries offering an **Internet access** for users – Percentage of public libraries offering **websites**
2. Collection	– Average number of **volumes** in higher education institution libraries per student of higher education – Average number of **volumes** in public libraries per 1000 inhabitants – Average number of **volumes** in public libraries per 1000 literate inhabitants
4. Library use and users	– Number of **registered users** per 1000 inhabitants in public libraries – Number of **registered users** per 1000 literate inhabitants in public libraries – Number of **registered users** in higher education libraries as a percentage of number of students – Average number of **loans** per 1000 inhabitants in public libraries – Average number of **loans** per 1000 literate inhabitants in public libraries – Average number of **loans** per student (higher education) in higher education institution libraries – Number of **visits** in public libraries per 1000 inhabitants – Number of **visits** in public libraries per 1000 literate inhabitants – Number of **visits** in higher education institution libraries per students of higher education
5. Library staff	– Average number of **employees** in public libraries – Average number of **employees** in higher education institution libraries – Ratio of female to male **employees** in public libraries – Ratio of female to male **employees** in higher education institutions libraries
6. Expenditure	– **Expenditure on literature and information** per inhabitant in public libraries – **Expenditure on literature and information** per student of higher education in higher education institution libraries

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Roswitha Poll studied philosophy, history and Romanic languages and took a PhD in history and a library degree both in 1972. She worked as head of acquisitions in the University of Erlangen and was chief librarian of Münster University Library from 1987 to 2004. She is now chairing the committee 'Quality – Statistics and Performance Evaluation' and three working groups within ISO (International Organisation for Standardisation). Since 1989, she has been working in various sections of IFLA, where she is at present a member of the Statistics and Evaluation Section. She works on projects dealing with management and evaluation of libraries and information systems. Her present publications deal with measures for the quality, costs and outcome of library services. In 2007, she published the second revised edition of the handbook on performance measurement in libraries, *Measuring Quality*. Roswitha can be reached at Schlüterstr.6, D-48149 Münster, Germany. Tel. +49 251 897836. Fax: +49 251 1353278. E-mail: pollr@uni-muenster.de