



International Federation of Library Associations and Institutions  
Fédération Internationale des Associations de Bibliothécaires et des Bibliothèques  
Internationaler Verband der bibliothekarischen Vereine und Institutionen  
Международная Федерация Библиотечных Ассоциаций и Учреждений  
Federación Internacional de Asociaciones de Bibliotecarios y Bibliotecas  
国际图书馆协会与机构联合会

الاتحاد الدولي لجمعيات ومؤسسات المكتبات

## About IFLA

[www.ifla.org](http://www.ifla.org)

IFLA (The International Federation of Library Associations and Institutions) is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession.

IFLA provides information specialists throughout the world with a forum for exchanging ideas and promoting international cooperation, research, and development in all fields of library activity and information service. IFLA is one of the means through which libraries, information centres, and information professionals worldwide can formulate their goals, exert their influence as a group, protect their interests, and find solutions to global problems.

IFLA's aims, objectives, and professional programme can only be fulfilled with the cooperation and active involvement of its members and affiliates. Currently, approximately 1,600 associations, institutions and individuals, from widely divergent cultural backgrounds, are working together to further the goals of the Federation and to promote librarianship on a global level. Through its formal membership, IFLA directly or indirectly represents some 500,000 library and information professionals worldwide.

IFLA pursues its aims through a variety of channels, including the publication of a major journal, as well as guidelines, reports and monographs on a wide range of topics. IFLA organizes workshops and seminars around the world to enhance professional practice and increase awareness of the growing importance of libraries in the digital age. All this is done in collaboration with a number of other non-governmental organizations, funding bodies and international agencies such as UNESCO and WIPO. IFLANET, the Federation's website, is a prime source of information about IFLA, its policies and activities: [www.ifla.org](http://www.ifla.org)

Library and information professionals gather annually at the IFLA World Library and Information Congress, held in August each year in cities around the world.

IFLA was founded in Edinburgh, Scotland, in 1927 at an international conference of national library directors. IFLA was registered in the Netherlands in 1971. The Koninklijke Bibliotheek (Royal Library), the national library of the Netherlands, in The Hague, generously provides the facilities for our headquarters. Regional offices are located in Rio de Janeiro, Brazil; Pretoria, South Africa; and Singapore.

IFLA Publications 138

# **Library Statistics for the Twenty-First Century World**

Proceedings of the conference held in  
Montréal on 18-19 August 2008  
reporting on the Global Library Statistics Project

Edited by  
Michael Heaney

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## FOREWORD

In 2005, IFLA's Statistics and Evaluation Section teamed up with the UNESCO Institute for Statistics (UIS), having its headquarters located in Montréal, and with the International Organization for Standardization (ISO), for an international project on library statistics. In February 2006, these three major international organizations agreed to create, within the following three years, a common project of data collection for public and university libraries. This outstanding international cooperation between IFLA, UNESCO, and ISO set out to establish standardized 'Global Statistics' indicators allowing us to compare countries across the world. Following the ISO 2789 standard, the creation of a standardized management list of indicators offers world-class comparable data on the status of libraries relating to resources, operational costs, and circulation and visit.

A more extensive description of the project and definitions of the standardized indicators (Global Statistics) are available on IFLA's website, <http://www.ifla.org/VII/s22/project/GlobalStatistics.htm>.

The use of the dataset was trialled by UIS in Latin America and the Caribbean in 2007. Library data from the region, obtained from the first phase of the project, was specially processed by the Research Group, which, among others, consisted of representatives from UNESCO, IFLA, and École de bibliothéconomie et des sciences de l'information de l'Université de Montréal (EBSI).

Results from the new statistical study on public and university libraries were presented at IFLA's post-conference satellite meeting in Montréal on 18–19 August 2008. Additional sessions were also held at the conference to show the most recent developments in various countries in terms of statistics, performance evaluation and benchmark studies at public libraries and university libraries. The plenary sessions reported on the results, provided feedback from the recipients of the survey and helped to suggest improvements and establish more specific directions for UNESCO's new data collection mode. This publication reproduces the papers presented at the conference. The presentations themselves are available at the conference website, <http://ville.montreal.qc.ca/ifla/>

The host organisers of the conference were Montréal Public Library Network and Concordia University Library Services. Other partners were the Sub-Committee on Libraries of the Conférence des Recteurs et des Principaux des Universités du Québec; Bibliothèques publiques du Québec, Bibliothèque et Archives nationales du Québec, and Library and Archives Canada. The conference arrangements were managed by the Corporation of Professional Librarians of Quebec. The conference received sponsorship from Montréal Cultural Development Service, the Ministère de la Culture, des Communications et de la Condition féminine, Concordia University, Canadian Urban Libraries Council, Canadian Association of Research Libraries, IFLA Statistics and Evaluation Section, Counting Opinions, Library Bound Inc. and Whitehots – Canadian Library Services. Their support is gratefully acknowledged.

The conference papers are published here as supplied. In the interests of speed of publication, no attempt has been made to bring uniformity in the styles of referencing (footnotes, endnotes, citation styles). All of the presentations given at the conference are reproduced here with the exception of that by Jesús Lau, for reasons beyond our control. The abstract of Dr Lau's presentation is reproduced here, and it provides a reference to a related publication which covers many of the topics touched upon by Dr Lau in his valuable contribution to the conference.

Michael Heaney

Secretary, IFLA Statistics and Evaluation Section Standing Committee

## ADDRESS OF WELCOME

Rachel Laperrière  
Bibliothèque municipale de Pointe-Claire, Montréal

Salutations :

Madame Claudia Lux, Présidente et directrice générale de l'IFLA;

Madame Roswitha Poll de l'ISO (International Organization for Standardization), Ex-bibliothécaire en chef de la bibliothèque régionale et universitaire de Münster et chef du sous-comité 8 de l'ISO, Qualité – Statistiques et évaluation du rendement;

Monsieur Simon Ellis de l'Unesco-ISU (Institute for Statistics), Chef de la Section science, culture et communication, Institut de statistique (UNESCO);

Monsieur Michael Heaney de l'IFLA, Directeur général du Service des bibliothèques de l'Université d'Oxford (R.-U.)

Mesdames, Messieurs,

Bonjour,

Je tiens tout d'abord à vous souhaiter la bienvenue à Montréal. J'espère que les travaux que vous mènerez ici seront productifs, et qu'ils vous laisseront aussi quelques moments pour profiter de notre ville – si bien sûr vous n'avez pas oublié d'apporter un peu de beau temps dans vos bagages ...

L'histoire de nos bibliothèques publiques à Montréal n'a pas toujours été facile. Mais, au cours des dernières années, la communauté montréalaise a réalisé l'importance tout à fait centrale de ces institutions, dans une région qui compte de plus en plus sur l'économie du savoir et sur les compétences culturelles de sa population pour prendre sa place dans le réseau des grandes villes du monde.

For quite a long time, we in Montreal relied first and foremost on our exceptional location on this new continent to promote our economic growth and the metropolitan influence of our city. This wasn't a bad idea after all, as we succeeded in establishing a very dynamic commercial and industrial center where ocean liners coming from Europe met railroad networks that converged into our large inland port.

But this model met its limits, first with the economic transformation of North America, and second with the emergence of a radically different paradigm for the growth of the global economy. We came to realize that the main drive for our development, and for the quality of our urban life, depended more and more on the abilities of our people, rather than from mere geography and trading routes.

This realization has led to a genuine change of paradigm in the way we understand our city, assess its full potential, and draw our roadmap into the future.

Les grandes infrastructures qui ont donné son essor initial à Montréal ont admirablement réussi leur travail. Notre port, notre réseau ferroviaire et nos équipements de transbordement ont alimenté nos premières générations d'industries et

ont fait de Montréal, pendant un certain temps, la grande métropole du Canada. Ils continuent toujours d'être le pivot de pans entiers de l'économie de Montréal et nous leur devons une part importante de notre prospérité économique.

Aujourd'hui, cependant, nous comprenons que la nouvelle économie a besoin d'une nouvelle génération d'infrastructures. Ces équipements et ces institutions ont une autre mission à remplir, d'autres défis à relever. Ils doivent agir d'abord et avant tout sur les connaissances, sur les compétences, sur la culture, sur la capacité d'apprendre et sur la créativité.

Ils doivent donner aux Montréalais et aux Montréalaises les outils et les habiletés pour réaliser leur plein potentiel dans une économie du savoir, dans une ville où la recherche scientifique, le développement technologique, la création culturelle et l'innovation en management ont maintenant pris la relève comme nouvelles locomotives de notre communauté.

Libraries are part of this new wave of knowledge-based infrastructures and institutions. Along with our schools, colleges and universities, also with our research centers and museums, as well as with our community organizations fighting against the modern social plague that is illiteracy, they are now an integral part of the very foundations of our "ville de savoir", of our "knowledge-based community".

This is why the Ville de Montréal, together with the government of Québec, have recently agreed to fund an ambitious program to build new public libraries, to modernize their equipments, and to expand their collections. Along with the recent inauguration of our new "Grande Bibliothèque", truly our first venture in this new generation of public libraries, these investments will radically change the face of our public library network in the next decade.

The huge popular success experienced by the Grande Bibliothèque since its opening, some five years ago, has made it clear that these investments gather a very large, across-the-board, support within the Montreal community.

Mais cet effort ne doit pas se limiter à l'ajout de bâtiments ou de mètres linéaires de rayons. Nous devons compléter et enrichir nos collections, bien sûr, mais il faudra aussi, et surtout, revisiter le paradigme de base qui a présidé au développement des bibliothèques publiques, il y a maintenant un siècle et demi.

La quiétude des salles de lecture et l'ambiance silencieuse qui sont devenues les marques de commerce des bibliothèques, font écran au fait que ces institutions traversent une véritable révolution. Et il s'agit d'une révolution qui n'est pas tranquille du tout ...

Au cours des deux dernières décennies, nos bibliothèques ont vécu des transformations plus dramatiques que toutes celles – y compris l'invention du livre dans le format que nous lui connaissons aujourd'hui – qui ont marqué leur développement depuis la Bibliothèque d'Alexandrie, il y a 2 300 ans.

Pour faire sa place en tant que ville de savoir, Montréal ne doit pas se contenter de rattraper la moyenne des autres villes canadiennes et de s'aligner sur des standards conventionnels. Montréal doit s'engager à fond dans la cette révolution en

cours, une révolution qui se joue au moins autant dans l'espace virtuel et sur l'Internet que dans les salles de lecture et sur les rayons de documents.

Et cette révolution, elle devra compter en premier lieu sur notre créativité et sur nos innovations – ce dont nous ne manquons heureusement pas à Montréal – avant même d'aborder la question des budgets et des ressources.

This new paradigm of libraries – which translates into a new vision for the future of *public* libraries – has not yet evolved into a comprehensive model and a stable form: it remains a work-in-progress, a vision that has yet to fully materialize. This is not to say that the new library is something better to be left to future generations: it is already here. Now. Those who will not participate actively in the movement will be marked for obsolescence.

In Montréal, public libraries will have to bring specific contributions, not only to the civic and cultural life of the city, but to its economic and creative potential. The fact that these are very broad objectives does not prevent our libraries from being held accountable for their mission and for their actions.

This is why we have to rely on a comprehensive, reliable and meaningful set of data about our public libraries. This data must cover the libraries' internal administrative issues, from collection management to opening hours and service availability. But this data must also be relevant for deciders, who have to make decisions in a context where public resources remain scarce.

Public libraries will be judged according to their contribution to the social and economic development of the community they serve. Therefore, they will be expected to clearly demonstrate how, and to what extent, they can contribute to, and be accountable for, specific community goals like access to cultural material, improvement of literacy skills, support of adult self-learning, promotion of parental reading to their young children, integration of immigrants, use of second-language, graduation rate, employability, and more.

Voilà pourquoi vos discussions sur les statistiques des bibliothèques au 21<sup>e</sup> siècle revêtent une grande importance pour nous. Au moment où, à Montréal comme dans plusieurs autres villes comparables, nous nous engageons dans la mise en œuvre d'une nouvelle génération de bibliothèques, sans pour l'instant pouvoir en dessiner tous les contours, nous devons compter sur votre expertise pour tracer notre itinéraire, pour faire les bons choix, pour fixer les bonnes priorités.

Since 2004, the Ville de Montréal has been supported by the IFLA, especially by its the Standing Committee of the Statistics and Evaluation Section. With this support, during meetings in Buenos Aires, in Bergen, and in Capetown, we have been able to present and discuss the strategies and methods we have implemented so far.

In turn, those discussions and your support have brought us invaluable help in assessing our progress and in building our action plan. On behalf of the Ville de Montréal, I would like to express our sincere gratitude to IFLA in general, and especially to the Statistics and Evaluation Section. Thank you ...

Vos travaux de ce congrès satellite, j'en suis sûre, vont pouvoir nous aider dans cette entreprise ambitieuse... et tout à fait enthousiasmante.

Je tiens à remercier les organisateurs, particulièrement Pierre Meunier et Céline Laperrière, de même que les participants à l'événement et vous souhaite un bon congrès.

Again, thank you, and have a very good stay in Montréal.

# HOW TO USE STATISTICS TO PUT ‘LIBRARIES ON THE AGENDA’

Claudia Lux, President of IFLA

‘Libraries on the Agenda’ is my presidential theme as president of the International Federation of Library Associations and Institutions from 2007 to 2009.<sup>1</sup> I have chosen this theme to strengthen the advocacy work of librarians all around the globe and to broaden the impact of our work. In my view to put libraries on the agenda of government of national, state and local level is a key to sustainable development not only of libraries but of regions and countries. Libraries support not only literacy and reading but access to knowledge and the information society as such. For this reason there are good opportunities to put libraries on the agenda of funding agencies and foundations and to explain the role libraries can play in their development framework. This may open up possibilities for a better funding and support of library services in many countries.

To convince our partners of the value of libraries, the use of statistics in advocacy for different levels and audiences is one key element. Politicians and administrations need results when they allocate money to a library institution. Even if it is not the only reason for them to support libraries, it is always an important part to keep them informed about the good outcome of their investment. Library statistics are a basis for library board members to decide on the further development of a library and it is a good marketing tool for the library in relationship with partners and researchers. Library managers and library staff need statistics to analyse the result of their work, to be able to compare it with previous years or with the results other libraries have achieved. It is important for them to understand statistical data to be able to explain different reasons for good or bad results. Statistics can also be important for users and user groups to motivate them to come to a library and use the library services. Moreover, statistics are a key in public relations of a library, as journalists always need data and use figures frequently. They are convinced that statistical data shows the accuracy of an article – even if the data are not one hundred percent correct.

If we are convinced about the value of statistics for our library, why and when is library statistics important for IFLA and for advocacy at the international level? I believe that library statistics at an international level and the work of IFLA Statistics and Evaluation Section<sup>2</sup> are very important to strengthen advocacy work of libraries internationally. From my own experience at WIPO (World Intellectual Property Organisation) and WSIS (World Summit on the Information Society) library statistics are often a surprise for the officials of those organisations, as they are not aware about the high figures of libraries and library users world-wide we

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<sup>1</sup> <http://www.ifla.org/III/PresidentsProgram.htm#President> (10.01.2009)

<sup>2</sup> <http://www.ifla.org/VII/s22/index.htm> (10.01.2009)

represent. As a result a better acknowledgement of libraries and their interests can be noted.

Also the IFLA Management of Library Associations Section<sup>3</sup> plays an important role in global advocacy and global statistics of libraries. As it is very difficult to collect correct data for statistical use it must be a part of the advocacy activities of library associations in all countries to convince their own members not only to collect data but also how to collect data. And in doing so it can be of great relevance to connect to different official bodies and to partner with them. I recommend institutions like national and regional statistical units, ministries of culture, education or science and local administrations or universities and research institutes. Sometimes it costs more time but the process itself can be used to advocate for libraries and to find good support in the future. This ‘advocacy by library statistics’ is not easy but very useful.

But when it comes to the basics, library associations and librarians have to teach a better understanding of statistical methods. One basic element is the discussion about ‘unique’ data or standardised data. Unique data will open doors for misinterpretation. Good statistics need one standard and I want to refer to the sections work on ISO 2789 here.<sup>4</sup> I shall give just one example: of why it is sometimes difficult, to convince the use of statistics. When librarians have to explain loan figures as number of loans it may include:

- Normal first-time loans
- Plus renewals
- Plus in-house loans (into the reading room)
- Copies instead of loans
- Inter-library loan

These figures may differ a lot and only a few persons outside the library and information field will understand the complexity and the difficulty to keep count of these services consistent over years as technology changes. Therefore we have to advocate the use of clear defined standards in library statistics to make it comparable over years and comparable between our institutions, too. The work of IFLA Statistics and Evaluation Section for achieving this goal is very valuable, and it provides important information for library advocacy work. The results are even more valuable when they do not neglect quality aspects and when methods to measure the impact of our services are developed as it is concept of the section.

If we want to put libraries on the agenda in a country, it is very useful to have statistical information at hand like

- The input into libraries by authorities
- The output of libraries in services delivered to the user

<sup>3</sup> <http://www.ifla.org/VII/s40/index.htm> (10.01.2009)

<sup>4</sup> Poll Roswitha : High Quality – High Impact? Performance and Outcome Measures in Libraries.IN: <http://www.tilburguniversity.nl/services/lis/ticer/08carte/publicat/04apoll.pdf> (10.01.2009)

- Quality aspects, when performance indicators are used
- The impact of libraries on society.

Nevertheless not only the data are important; it is also not easy to convince politicians and partners with data only. As a school librarian, a national librarian or as an IFLA President we all have to use statistics for well-prepared and clear arguments to put libraries on the agenda. Is IFLA's Statistics and Evaluation Section able to develop these arguments in a way, that it is usable for all IFLA members? When the section helps to prepare a world library statistics will we be able to answer questions like:

- In 2008 – are there more libraries world-wide than ever? How many libraries exists in the year 2000 and how many in 2008?
- How many of the world libraries add knowledge to the web? What is the estimate percentage of all web information?
- How many successful students use libraries? Is there a correlation between library use and higher grades?
- How many literacy activities in libraries happen each day? Are there other measurable activities to explain libraries' contributions to development better?

Your answers with proved statistical data will show the potential and the impact libraries contribute to the information society. But there are many more valuable data which we can use in advocacy for libraries:

- Statistics on how many readers are reached by libraries
- Visitors in libraries and on libraries' web-sites
- Number of schoolchildren with a library card
- Children signed up in a reading program or summer reading club

All these data give us an excellent opportunity to explain the role libraries play in society. As a rule we will see, that nearly 100 percent of those people who have influence in policy, culture and economy today have used libraries at least once in their life. They remember the books only, but we have to remind them of their library experience. There are great examples like the former mayor in Houston, who explicitly said that he would have never become a mayor without the chance he had to use a library in his youth.<sup>5</sup> I used this story once when I had to advocate for my library at a meeting of honourable people and decision makers. I asked the audience, how many of them have never used a library in their life. Nobody raised their hands. And even if there were somebody, in the social group as such nobody would admit to have never used a library in his or her life, because libraries have a certain kind of cultural reputation. And supported by figures from the library services, I could explain how important libraries are to reach the same higher educa-

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<sup>5</sup> <http://www.ala.org/ala/online/currentnews/newsarchive/1998/january1998/houstonmayor.cfm>  
(11.01. 2009)

tion they have and how libraries help people to develop cultural activities and active participation in democracy.

Other important statistical data<sup>6</sup> for library advocacy work are:

- Number of libraries in the world
- Number of internet access in libraries
- Number of users
- Money spend by libraries on acquisition and technology

The combination of these very basic data can support our international and national advocacy work as we can show the market power of libraries in using these data. In advocacy we often meet politicians who ask us how relevant libraries are for development and often they just mean economic development. Hence it could be nice to have data about the following at hand:

- Money lost in companies due to lack of information
- Efficiency of development activities due to a clear answer at ask-a-librarian
- Set up of small businesses with help from library information services

It looks more difficult to retain these kind of data as we need to analyse the impact of library and information services. It often makes sense only when it is combined with success stories. Since the World Summit of the information society IFLA has collected success stories from libraries from all over the world to market the impact of libraries on the information society.<sup>7</sup> The combination of statistical data and success stories can be developed into a very powerful and convincing tool to put libraries on the agenda of economic development.

There is another important aspect of the relevance of statistical data: the preparation of statistics to strengthen a new image of libraries! When we use statistics in advocating for libraries people are often very surprised about the figures our work relies on. In putting libraries on the agenda we need to use the excellent statistics we have better, for example in a way that we support the new image of modern librarians through comparison. This method is an excellent marketing tool, but we need more preparations done by IFLA Statistic and Evaluation Section, when we want to use it successfully.

What do I mean with the ‘comparison’? Many library associations are doing it already in their daily practice, like the Library Association in Germany, where soccer is the most beloved sport, often repeats this comparison: ‘There are more users in libraries than people going to the soccer games in Germany.’ This statement is very convincing, and it is always good to have the real figure with you to explain it. It is easy to use in radio or television interviews and even politicians,

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<sup>6</sup> See the excellent activity of the section: <http://www.ifla.org/VII/s22/project/GlobalStatistics.htm> (10.01.2009)

<sup>7</sup> <http://www.ifla.org/success-stories/> (11.01.2009)

who supports us, are repeating it and use it frequently.<sup>8</sup> Does IFLA Statistics and Evaluation Section have enough imagination to develop more comparisons of this kind? Or just give hints, what can be used, as you know best where the strength of library and information services lay in comparisons. Comparisons produce pictures in people's mind. This could be a simple example: In one year, users of the library in Montreal lend material (in kilometres) to reach from Montreal to ... Ontario, Vancouver or Hawaii. We need more like this.

Very often administrations prepare material for policy decisions and they develop a library policy or a cultural framework without notice to library and information professionals. Hence we have to learn better how to influence policy before it is set. This is exactly what 'Library on the Agenda' is all about. As we know that policy makers analyses library statistics without any consultation and that statistics are used without explications there is a lot to do in presenting and marketing the results. We need to present convincing explanations, when statistical data and performance data are given to those developing a library policy. Therefore I recommend to you a close co-operation with the IFLA Marketing and Management Section, which has proved to be very fruitful.

Whenever we advocate for libraries we can not do it without the preparation of background material. We need general information, connected with the advocacy goal, and we need statistics, which are well prepared and readable, that means short! And we need convincing comparisons on a statistical base. Enriched with library best practise from at home and abroad it will be key to our advocacy success. A combination that makes it easy for us to put libraries on the agenda at different political levels. It will empower us to describe the future impact of library and information services.

To conclude I want to emphasise a short menu for our future advocacy activities. Statistics are an important tool whenever library and information professionals advocate for their goals. Librarians have to use statistics better, but still they have to believe in more than statistics only. It is always important to focus positively on the goals and to present convincing success stories, like those IFLA collects in the success stories data base. When using data and figures, librarians and information professional should create pictures in the minds of their partners, using comparisons. And when librarians advocate for libraries they need to talk clear and short, not reading out from a paper, but present the main aspects with well-prepared statistical data. And however difficult the advocacy process is, librarians will be patient and 'stubborn' and always will stay controlled. They are open to critical remarks, they ask questions and add humour to their clear statements, they smile and thank. And whenever librarians have to present their projects on stage, they know that even more important than any statistics is their personality – this is the key. Marketing experts say, that people often do not recall the exact informa-

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<sup>8</sup> Goering-Eckardt, Karin (Member of German Bundestag) : Wir sind besser als Google. Grußwort zum 12. Thuringer Bibliothekstag 2006. in: [http://www.goering-eckardt.de/cms/default/dok/233/233734.wir\\_sind\\_besser\\_als\\_google.html](http://www.goering-eckardt.de/cms/default/dok/233/233734.wir_sind_besser_als_google.html) (11.1.2009)

tion given by a person, but they recall the personal charisma. Nevertheless to support 'Libraries on the Agenda', library and information professionals need well prepared statistics, convincing popular arguments, and a good practise in the use of statistics at multiple advocacy activities. This is why I personally value the high importance of the work of the IFLA Statistics and Evaluation Section and why I want to thank the group for their excellent work already done.

# **The Global Statistics Project**

# GLOBAL LIBRARY STATISTICS FOR THE TWENTY-FIRST CENTURY

Michael Heaney, Secretary, IFLA Statistics and Evaluation Section;  
Executive Secretary, Oxford University Library Services

## ABSTRACT

*This paper describes the background to the collaboration between IFLA, UNESCO Institute for Statistics and ISO to develop new library statistics. It outlines the inadequacies of currently available data and the principles underlying the data elements selected for inclusion in the new questionnaire.*

One of the significant achievements of the International Federation of Library Associations and Institutions (IFLA) in recent years has been the role it has played in the World Summit on the Information Society (WSIS) in advocating the contribution libraries make to society. Before the first meeting, in Geneva in 2003, IFLA commissioned from Teresa Hackett a study *Global Library Statistics 1990 – 2000* ([http://www.ifla.org/III/wsis/wsis-stats4pub\\_v.pdf](http://www.ifla.org/III/wsis/wsis-stats4pub_v.pdf) accessed 23 February 2008). This relied on two major sources of data, the UNESCO statistics and Libecon. Libecon was a European Commission-funded project to collect library statistics for Europe (<http://www.libecon2000.org>). Unfortunately the project was time limited and was funded only until 2004. The material remains available via an updated version from 2004, using data up to 2001, on the Libecon site (<http://www.libecon.org/pdf/InternationalLibraryStatistic.pdf>, accessed 6 July 2008).

The UNESCO statistics were and are available from the UNESCO Institute for Statistics (<http://uis.unesco.org>, accessed 23 February 2008). The Institute has published three series of library statistics on a rolling triennial basis: national libraries, other major non-specialized libraries and public libraries. The most recent is *Libraries of Institutions of Tertiary Education, 1996–2000*.

What Teresa Hackett's study revealed was the paucity and unsatisfactory nature of the global statistics available. At the IFLA conference in Buenos Aires in 2004 the IFLA President Kay Raseroka and Vice-President Alex Byrne discussed with IFLA's Statistics and Evaluation Section how this might be addressed. What resources would be needed to compile a set of global statistics suitable for the twenty-first century, reflecting the activities of libraries and their contribution to society? The Section went away and did its homework and produced the answer. It framed a likely set of statistics, pointed to the best sources or methodologies to acquire them (gathering by a specialist institution in a pilot study followed by a full survey) and indicated the likely cost of up to 100,000. This was well beyond IFLA's own resources and, given the rapid time frame needed to produce results before the WSIS meeting in Tunis in 2005, IFLA felt unable to proceed.

The Statistics and Evaluation Section took a step back to look at the roots of the problem. The only body regularly to attempt to collect statistics at the global level, UNESCO, had not done so for five years. Moreover, the basis of the statistics was the *Recommendation concerning the International Standardization of Library Statistics* adopted by the UNESCO General Conference in 1970, following upon an IFLA conference in 1968. This was before the development of the internet, the web and only at the very beginning of automation in libraries. The data elements identified in the 1970 Recommendation are:

#### *Background*

- (a) Number of libraries
- (b) Population served

#### *Library materials*

- (c) Collections
- (d) Additions
- (e) Number of current periodical titles

#### *Usage*

- (f) Number of registered borrowers
- (g) Number of works loaned out
- (h) Inter-library lending within the country
- (i) Inter-library lending at the international level:
- (j) Photo and other copies

#### *Finance*

- (k) Ordinary expenditure
- (l) Capital expenditure
- (m) Library employees

This is a fairly minimal set of figures concentrating on collections and basic usage. The pervasiveness of electronic sources of information today has reduced the ability of the traditional statistics to reflect the provision of information to the world's citizens. Nor are the traditional statistics well suited to demonstrating impact and outcome.

IFLA's Statistics and Evaluation Section decided the best course would be to talk to the UNESCO Institute for Statistics. The Section appointed a project group consisting of Michael Heaney (the then Section Chair), Roswitha Poll (the then Section Secretary and also chair of ISO Technical Committee 46 Subcommittee 8, Quality – Statistics and performance evaluation), and Pierre Meunier (also a member of both Section committee and ISO TC46/SC8). The initial aim of the project was to seek to embark on a three-year collaborative programme with UIS and ISO TC46/SC8 to:

- Review the 1970 recommendations;
- Advise on the adoption of measures facilitating the demonstration of impact and outcome;
- Advise on appropriate measures to reflect the use of electronic information sources;
- Advise on the use of appropriate non-library demographic and socio-economic measures;
- Advise on the construction of appropriate indicators using the recommended statistics;
- Advise on additional and supplementary avenues to strengthen the collection of data.

We, the project group, were fortunate in that one of our number (Pierre Meunier) is based in Montreal, and had already undertaken exploratory discussions on our behalf. An initial formal meeting was arranged for February 2006 in Montreal with Simon Ellis (Head of UIS Science Culture and Communications Statistics) and his colleagues.

While the library community is concerned nowadays with impact, the focus of UNESCO's revised programme for gathering data will be 'access to information', with particular attention to cultural diversity. In discussion we translated these different approaches into the distinction between 'passive capabilities for people to access information' (collections, libraries etc. – 'enabling') and 'active access to information' (loans, pages downloaded, etc. – 'use'). We agreed that any figures promulgated should be able to reflect one or the other of these aspects.

We also agreed that the needs of developing countries must be taken into account, and noted some of the practical difficulties in data collection that UIS experiences in some parts of the world. The library is one institution whose role and function is relatively well understood and defined even in rural areas of developing countries, and so the proposal on counting 'events' was noted with interest; this could demonstrate the community role of libraries in small communities. Other ISO data elements, such as interlibrary-loan and photocopying transactions, reflected more particular way of achieving aims in relatively developed economies, and were less relevant in demonstrating the impact of libraries.

We agreed that the ISO committee would look at the standard at its May 2006 meeting bearing these considerations in mind, in order to identify those statistics most likely to provide figures with broad comparability across the globe.

Library statistics in a vacuum are of limited usefulness. There several major international household surveys which present detailed socio-demographic information and which could be correlated with library data. Such household surveys bypass the difficulties of data collection by library bodies, and are the only potential source of data of non-users of library services. It is, however, difficult to influence the content of such surveys.

Relevant surveys include:

- the Demographic and Health Survey (DHS) (U.S. Agency for International Development)
- the Living Standards Measurement Study (LSMS) (World Bank), and
- the Multiple Indicator Cluster Survey (MICS) (UNICEF)

In addition international skills assessments which take place within schools present information on reading and numeracy skills. One of the most successful is the Programme for International Student Assessment (PISA) (OECD), but similar programmes exist for other regions eg the Southern African Consortium for the Measurement of Educational Quality (SACMEQ).

Many surveys bodies are participants in the International Household Survey Network, established to foster better use of survey data for policy making and monitoring.

UIS itself has recently developed the Literacy Assessment and Monitoring Programme (LAMP) with an improved concept of what constitutes 'literacy'. It includes background questions on education, family, ICT skill levels, use of computers in a public library, etc.

Information on non-users may be relevant. UIS adduced the example of non-attendance at school, where it appears that one of the main reasons for non-attendance is lack of transport. Similar factors could be identified affecting the use of libraries. This information could be linked to GIS mappings.

One benefit IFLA could bring was its widespread contacts with libraries and librarians across the globe. We agreed to compile a database of contacts for library statistics, and to seek to identify a suitable pilot area in which to try out the survey. To this end project members talked the IFLA regional committees at the Seoul meeting in August 2006, towards the end of the year engaged Tatiana White of Oxford University Library Services to compile the data. In the meantime ISO had produced a subset of the ISO 2789 standard and this was published as a draft in the IFLA Statistics and Evaluation Section's newsletter in July 2006. ('ISO Preliminary set of possible data for global library statistics', IFLA Statistics and Evaluation Section Newsletter, July 2006, p.8: <http://www.ifla.org/VII/s22/newslet/statNewsletter072006.pdf>)

We agreed to pilot the survey in Latin America and the Caribbean in the second half of 2007, would analyse the results as they came in; review them at the beginning of 2008 and publish during 2008. We also undertook to enlist the help of library schools in Montreal in the analysis of the data.

The January 2007 meeting also finalised the dataset. I am not going to go into the dataset in detail because the following speakers will say more about them. They are given in Annex 1 to this book. Note that a supplementary question, outside the ISO indicators, was requested by UIS, on the 'top ten libraries' for each sector.

The questionnaire is also available on the UIS website at [http://www.uis.unesco.org/ev.php?ID=6970\\_201&ID2=DO\\_TOPIC](http://www.uis.unesco.org/ev.php?ID=6970_201&ID2=DO_TOPIC) (accessed 13 March 2008).

There may be some surprise that the questionnaire does not ask in more detail about electronic resources. The determining factor is the degree to which a question can be answered in a variety of countries across the world, in different stages of economic development and with different cultural and social conditions; and answered in a way which allows us to draw meaningful comparisons.

The questionnaire was distributed to Latin American and Caribbean countries during the second half of 2007 We'll be hearing in the following papers and sessions about the progress of and outcomes from the survey.

# STANDARDISATION OF LIBRARY STATISTICS

Roswitha Poll  
Chair of ISO TC 46 SC 8

## ABSTRACT

*This paper describes the contribution of ISO committee TC 46 SC 8 'Quality – statistics and performance evaluation' to the development of the new indicators and describes the rationale behind them.*

The main topic of this conference is the project for new global library statistics. Since the end of 2005, the IFLA Section Statistics and Evaluation, the UNESCO Institute for Statistics and the ISO committee TC 46 SC 8 'Quality – statistics and performance evaluation' have joined forces in order to develop and test a new set of statistical data 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.

## ISO 2789: INTERNATIONAL LIBRARY STATISTICS

Comparison of statistical results between institutions or countries will never be possible, if the data and the data collection methods have not been defined and fixed carefully. Therefore, library statistics have been standardised within the frame of ISO, the International Organisation for Standardization. The standard ISO 2789 'Information and documentation – international library statistics' standardises the terminology of library services and library use, gives detailed definitions and describes the methods of collecting and analysing the data with the aim of comparing and aggregating the results.

The first edition of ISO 2789 was published in 1974. The revisions followed in quick succession: 2nd edition 1991, 3rd edition 2003, 4th edition 2006. The rapid development of electronic information resources and new library services requires constant changes in the standard.

ISO 2789 is meant to cover all aspects of libraries: Size and type of the collections (whether traditional or electronic), number and type of users, the usage of library services, and the library's resources (staff, space, funding). The last revisions show that the trend goes from collection-oriented to user-oriented data, taking up issues like reference services, library visits (physical and virtual visits), user training and events organised by the library. Special consideration is given to electronic collections and services and their use. The general demand for cost transparency and cost-effectiveness in libraries led to more detailed statistics of income and expenditure.

The first two editions of the standard prescribed that all statistics should be collected over the total year. As some data that seemed very important proved difficult to collect, in the 3rd edition the possibility of sampling was introduced. For instance for counting visits or reference questions, it can be sufficient to take two or more samples of 'normal' weeks over the year and gross up.

ISO 2789 gives rather detailed information of how to count collections, services and users in all types of libraries. There are 105 definitions and many more descriptions of counting procedures. It is improbable indeed that such detailed statistics could be collected worldwide in a comparable way. The project group decided to aim at a short data set, but to rely for these data on the definitions and methods given in ISO 2789, as the standard builds on international consensus and many countries are already using – or partially using – ISO 2789.

## **NEW GLOBAL LIBRARY STATISTICS**

The request for 'robust' worldwide library data initiated with IFLA that needed reliable statistics for the World Summit on the Information Society. IFLA's main interest was to show the general importance of libraries for society, while the UNESCO Institute for Statistics focused on the library's role for information literacy in a country. UNESCO also stressed the importance of adjusting the new statistics to the possibilities of data collection in developing countries.

Thus, the demands on the new statistics were as follows. The data should:

- cover the full range of library services,
- consider new electronic services,
- show libraries' role in society and culture,
- help to demonstrate the impact of libraries on the population,
- further comparison on a national and international basis,
- yield plausible results for publication and promotion,
- and, in spite of all that, consist of only a few measures, that would be easily available .

This, of course, was not an easy task. In spite of the large pool of well-tested and precisely defined statistics available in ISO 2789, it took about 18 months of discussions to choose the data set that was then tested in Latin America and the Caribbean. The main problem was to select measures for the electronic library services. Statistics for the number of loans or of volumes in the collection are well established in libraries. But though in most libraries electronic collections and services are developing rapidly, statistics for such collections and services are not yet in wide-spread use.

The projected new statistics try to consider all issues that are relevant for the role and impact of libraries today. The data are collected separately for public and academic libraries.

*Accessibility of information via libraries:*

- number of libraries
- number of seats for users
- weekly opening hours (4 groups: less than or equal to 20, 20 to 40, 40 to 60, over 60)
- percentage of libraries that offer Internet access for users
- percentage of libraries that offer an online catalogue
- percentage of libraries that offer a library website
- The three last-named data will be especially interesting for public libraries.

*The collections that libraries offer*

- number of volumes
- number of electronic serials subscriptions
- number of ebooks (titles)
- number of databases (purchased or licensed)

The number of volumes is the only measure for the traditional collection. ‘Volumes’ were preferred to ‘physical units’ (which would include all items in non-electronic form) in order to avoid counting e.g. microforms or audiovisual media.

Three measures were selected for the electronic collection, as it will be important to assess and compare the development of these collections in libraries over years.

*The library’s cultural role*

- number of cultural events organised by the library

*The library’s educational role*

- annual attendances at user training sessions

*Library users*

- number of registered users

The number of registered users was preferred to the number of active users (using library services during the last year), as data of registered users seemed to be more widely available.

*Use of library services*

- number of visits to the library premises
- number of loans
- number of downloads from the library’s electronic collection

The measure of ‘visits’ does not include the ‘virtual visits’, the accesses to the library’s website. Counting virtual visits has only recently been started in some countries, but the physical visits are well established in library statistics and are an important measure for showing the library’s importance as meeting and working place.

‘Downloads’ as measure for the use of the electronic collection were preferred to ‘sessions’ or ‘accesses’, as downloading shows that user have found items of interest when searching in databases or electronic journals.

*The resources of libraries: staff*

- number of employees (headcounts)
- of these female/male

The tests in Latin America and the Caribbean showed that more libraries knew their staff numbers expressed in heads than in FTE (full-time equivalent).

*The resources of libraries: finances*

- total operating expenditure
- of which staff costs
- of which expenditure on literature and information
- of which other costs

The questions relate to expenditure, not to income, as it would certainly be difficult to compare the different sources of library income on an international level. But the three subgroups of the yearly expenditure are defined and counted as such in many libraries.

The proposed new library statistics ask for only 22 data, of which 7 concern electronic collections or services. Following the discussion in the Montreal conference, one additional measure will be included, concerning the amount of training per year for library staff. Staff training is indeed the most important issue for the development and future-orientation of all types of libraries. Hopefully, the small set of 23 data, if used over time, will yield a reliable picture of library services and library use in a country.

The new statistics consider only public and academic libraries. All project partners did not see a possibility of collecting data about special or school libraries worldwide. 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. Such institutions may be ministries (for culture, education or research), national statistical units, library associations or national libraries. Data of public and academic libraries in a country might be collected by different institutions, in different ways, and sometimes nobody feels responsible.

The project partners, when deciding on the final dataset for the new library statistics, did not expect that all these data would be directly available in all countries. Even in countries with high IT-development, measures for electronic library services are partly missing. It will probably take some time till the statistics have been adopted by all countries. But the project partners, from different viewpoints, recognised the need for uniform library statistics that can be collected and compared worldwide and can help to identify and promote the libraries’ role for literacy and information literacy, education and culture.

# THE 2007 INTERNATIONAL LIBRARY SURVEY IN LATIN AMERICA AND THE CARIBBEAN

Claude Akpabie, UNESCO Institute for Statistics

## Abstract

*This paper summarises the results of the 2007 UNESCO Institute for Statistics/ IFLA/ISO library survey which was conducted across Latin America and the Caribbean.*

*UIS is a founder member of the Partnership for the Measurement of ICTs for Development the official international body responsible for the statistical aspects of the follow up to the World Summit on the Information Society. The priority for the culture team at the Institute is the revision of the 1986 UNESCO framework for cultural statistics, while in communications the team is working on international statistics for the use of ICTs in Education, and information literacy.*

*The 2007 library survey has collected statistics on libraries in each of the Latin American subregions; Central America, Caribbean, South America. The questionnaire covered both public libraries and higher education libraries but most responses concerned public libraries only. A mixed response was obtained to 'new topics' such as; internet connections, e-books, and database access.*

*The papers discusses the lessons learnt from the survey, including where response rates or definitions might be improved as well as areas where there is simply a lack of data. The potential for an international survey of library statistics will be revisited, as well as consideration of the minimum statistical reporting requirement for a functioning national library system.*

## INTRODUCTION

In January 2006, the International Federation of Library Associations (IFLA), the International Standards Organisation (ISO) Library Statistics Committee and the UNESCO Institute for Statistics (UIS) agreed to explore the possibility of reviving the UNESCO global survey which took place regularly until 1999 when it was discontinued due to issues with data quality and coverage.

The revised survey was conducted according to current international standards, making particular use of the new ISO 2789 statistical standard for libraries. Latin America and the Caribbean were chosen as a pilot region based on an initial review of contacts conducted by IFLA.

The new survey questionnaire was developed by the UIS with extensive input from IFLA and ISO experts. It was launched in mid-2007 in 41 Latin American and Caribbean countries. Data entry, data cleaning and processing of the pilot survey responses were completed by the UIS with the help of an intern from the

École de bibliothéconomie et des sciences de l'information (EBSI)-Université de Montréal who undertook a preliminary analytical review of the survey returns as a research project. Discussion between the partners led to the identification of 22 core statistical indicators to adequately map the status and trends in the library sector. In addition to IFLA and UIS support, the UNESCO Communication and Information Sector funded the implementation of the survey.

## **LEVEL OF RESPONSE TO THE SURVEY**

Of the 41 countries surveyed in Latin America and the Caribbean, 26 (including a nil response from Bolivia) returned completed questionnaires (as shown in Figure 1), making the response rate 63%. 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.

The pattern of responses to individual questions showed considerable variation:

- Data was more readily available for public libraries than for libraries at institutions for higher education. Only 14 countries of 25 with valid data reported the number of higher education libraries, while all of them provided information on the number of public libraries. This may indicate that data on public and higher education libraries are not necessarily collected or centralised by a single organisation.
- Data were more available for 'traditional statistics' (e.g. volumes, seats, internet access and websites services, registered users, loans, headcount of library employees), rather than for items, such as e-resources, visits, events, opening hours, full-time-equivalent library employees and expenditures. The items had scarce data either because they needed more clarification of their definition at the international level, thus requiring more intensive data collection, or because they were not previously included in international surveys.

Only 9 out of 25 countries provided the most commonly available indicator for higher education libraries – the average number of employees – whereas a much wider range of indicators were available for public libraries (see Figure 2). The highest response rates were for numbers of public libraries per 1000 inhabitants or literate people, average number of employees in public libraries, ratio of female to male employees, percentage of public libraries with internet access for users, and volumes, registered users or loans per 1000 inhabitants.

## **MAJOR OBSERVATIONS**

The following section highlights some of the results from the survey.



Figure 1. Responses by country to the library survey in Latin America and the Caribbean  
 (Source: UNESCO Institute for Statistics, August 2008)

**Public library access**

Figure 3 below illustrates that Jamaica (23), Saint Vincent and Grenadines (17), Saint Lucia (11), Bahamas (10) and Mexico (7) have higher numbers of libraries for every 100,000 inhabitants. For every 100,000 literate adults this number rises to 33, 23, 15, 13 and 10 respectively for the same countries. Within this group, Mexico could be considered to offer a ‘more balanced’ provision of library services to its citizens if the population size is taken into consideration. Yet with the

Percentage of each indicator availability for all countries

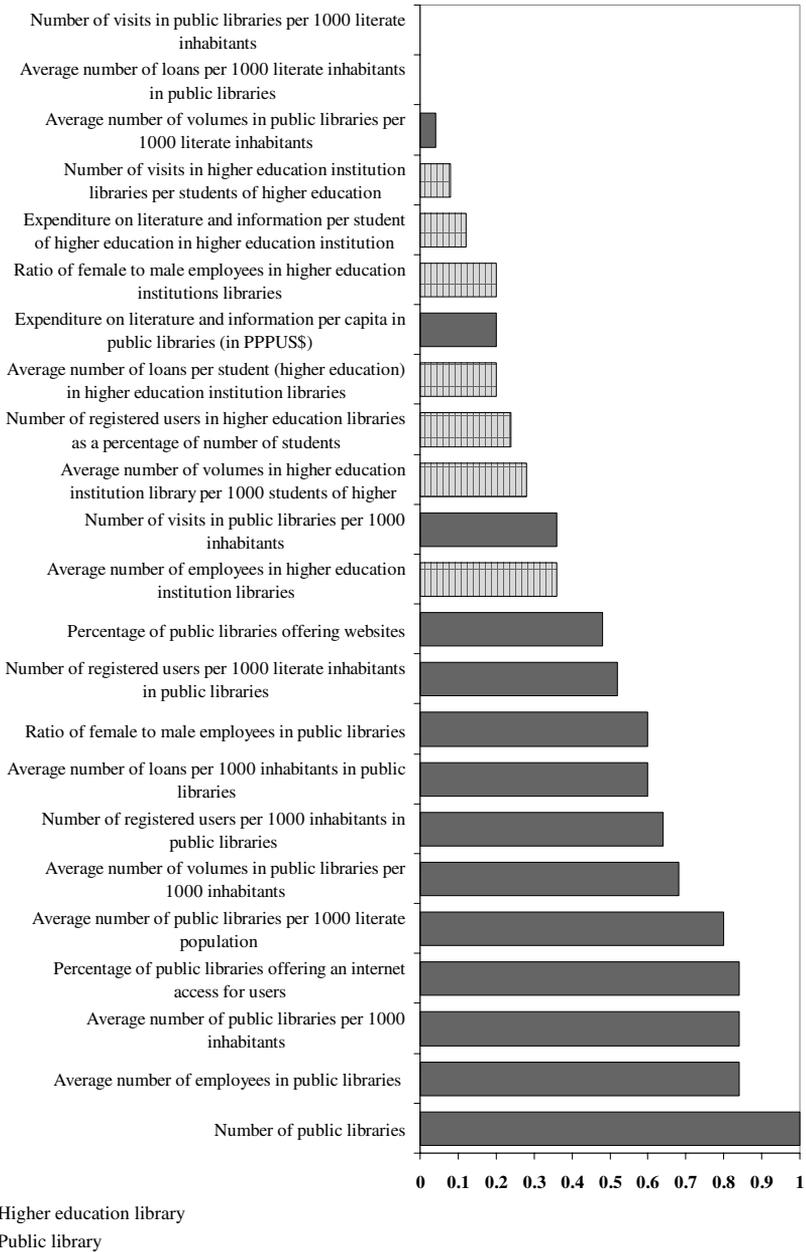


Figure 2. Level of responses listed by core indicator (Source: UIS August 2008)

exception of Mexico, the seemingly positive outlook reported by the other countries appears to reflect their small populations, which, in total, fall below 1% of the overall sample of respondent country populations. It is therefore difficult to draw a clear-cut conclusion about the adequacy of library services in these countries. Data for Argentina, Chile and the Netherlands Antilles reveal only a partial picture.

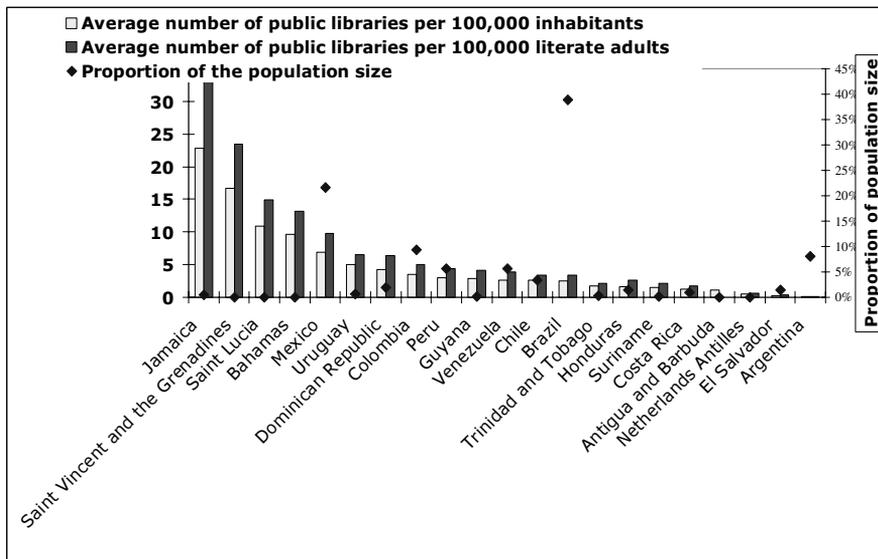


Figure 3. Number of public libraries per 100,000 inhabitants and literate adults  
(Source: UIS August 2008)

Even allowing for its large population size influence, Brazil presented a much lower number of public libraries per 100,000 inhabitants or adult literate, which suggests a potential coverage issue. Countries with higher levels of literacy have a smaller gap between the two indicators – number of public libraries related respectively to the total population or the number of literate adults

### Collections and internet services

The number of volumes of public libraries ranged from 12 for every 1000 inhabitants in El Salvador to almost 600 per 1000 inhabitants in Saint Lucia (Figure 4.). The higher figures for this indicator may be misleading as most of them are from Caribbean islands with comparatively few public libraries that contain arguably modest collections only suitable for their relatively small population size. Saint Vincent and the Grenadines, which is not displayed in Figure 4, shows an exceptional 2497 number of volumes in public libraries per 1000 inhabitants. These figures are of course overall national aggregates and actual supply or accessibility of libraries will depend on local availability with urban populations often having easier

access than remote rural communities. When the total number of volumes in public library are related to the overall number of literate adults, the indicator rises significantly in several countries reflecting a closer relationship between the supply of books and a skilled readership.

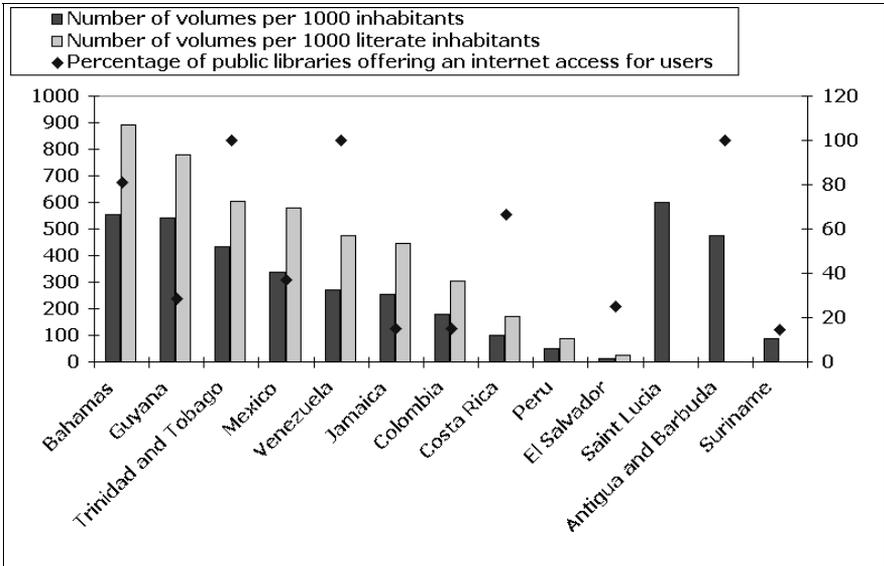


Figure 4. Number of volumes per 1000 inhabitants and literate adults in public libraries. Internet access in public libraries (Source: UIS August 2008)

As far as internet services are concerned, 21 countries (NB: not all are displayed on the graph in Figure 4) reported that their public libraries allowed users to access the internet. Six countries reported that all their public libraries provided this service while four others reported that at least 50% did so. Twelve countries reported data on public libraries with their own websites. Only two countries (Antigua and Barbuda, and the Netherlands Antilles<sup>1</sup> reported that all their libraries have websites. In Argentina<sup>2</sup> 59.1% of libraries had websites while this figure was by far marginal in the other countries, notably Venezuela (0.13), Chile (1.4), Colombia (2.0), Bahamas (9.4) and Jamaica (14.8). Questions on the availability of e-books and other e-resources resulted in even lower response rates.

### Readers and usage

While excluding Argentina whose data are partial, the number of registered users ranged from 2 per 1000 people in Suriname to more than 200 per 1000 people in Jamaica (234) and Guyana (254). A different perspective emerges when consider-

<sup>1</sup> Data refer to Saint Maartens only

<sup>2</sup> Data do not include libraries from Buenos Aires

ing the size of the literate population. The overall level of registered users increases for the majority of countries but no country had registered users tallying more than 50% of the population. Given the small size of indicator sample, it is difficult to ascertain a clear positive relationship between the number of loans and number of registered users per 1000 inhabitants. When low numbers of registered users correspond to a relatively high level of loans per one 1000 inhabitants, it may be suggestive of a small number of people taking out a large number of books or a somewhat smaller number of loans rotated across a larger group of people not necessarily registered. In addition, Jamaica and Argentina have explicitly stated that their loan statistics include renewals and that their data may potentially include inter-library loans.

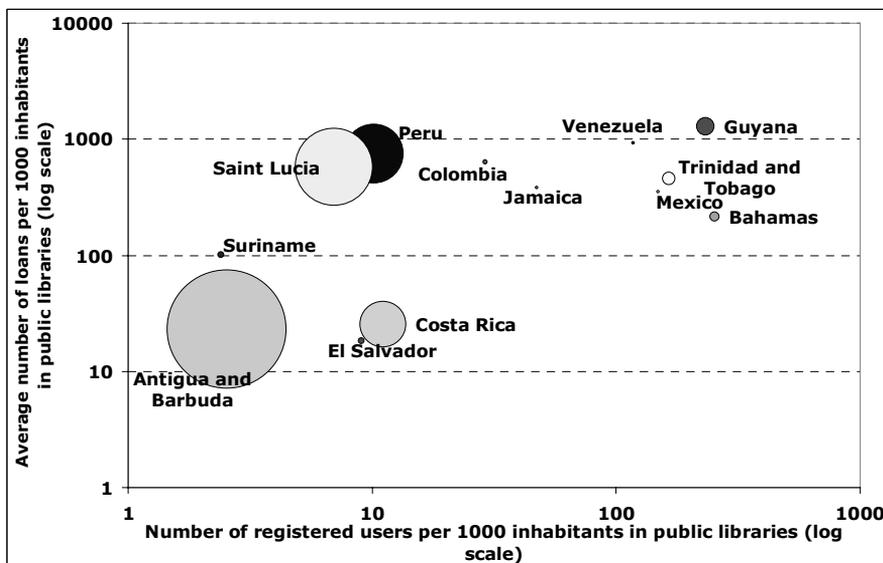


Figure 5. Registered users and loans per 1000 inhabitants (circle size corresponds to population size) (Source: UIS August 2008)

A further complicating factor is library opening hours. Guyana and Jamaica reported that 80% of their public libraries opened for less than 24 hours a week. In contrast, both countries have high levels of loans and registered users per 1000 inhabitants despite their small populations (as reflected by the size of the circles in Figure 5). Therefore, the shorter opening hours do not appear to hamper accessibility to libraries – perhaps because libraries are located close to readers or can be reached quickly. Chile, St Kitts and Nevis, Suriname and Venezuela reported that all their public libraries stayed open for over 40 hours a week. Figure 5 indicates that long opening hours do not always translate to large numbers of loans and registered users. Other social, cultural and personal habits may also play a part.

## Employment

The average number of people employed per library ranged from less than 2 in Chile, Mexico and Jamaica, to 17 in Antigua and Barbuda. As shown in Figure 6, unlike other sectors of employment, women seem to be dominating the workforce in libraries with more than twice as many of them compared to men in all countries except Argentina, Chile and Costa Rica.

The ratio of employees to registered users can be utilised as a proxy measure of the workload per employee. In El Salvador, there were almost 5000 registered users per employee. Yet in Suriname where there was an average of 8 employees per library, there was a more modest 18 registered users per employee.

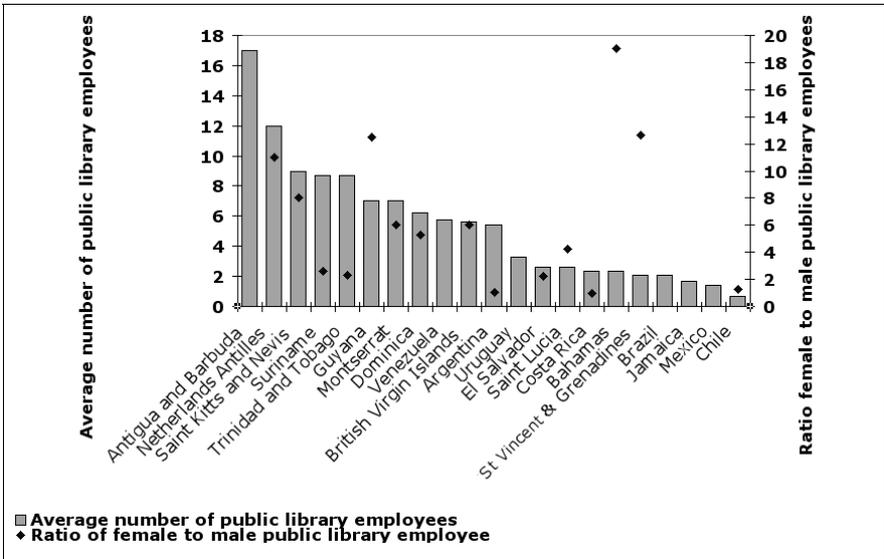


Figure 6. Employment in libraries & female participation (Source: UIS August 2008)

## CONCLUSIONS

The 2007 international library survey provides an overall picture of both the availability of library statistics and the very different levels of library provision in Latin American and Caribbean countries. It has also demonstrated that there is no uniform relationship between overall stock of books, length of opening hours and numbers of users.

At the same time, it must be stressed that the survey represents a 'pilot' test of new definitions and standards. Hopefully, the survey will spark international discussions on library indicators to determine best practices for their selection and interpretation.

The pilot survey results have highlighted similar constraints encountered in previous UNESCO surveys:

- lack of co-ordination between institutions, which makes it difficult to collect complete data on all libraries within a country
- a need for improved clarity in data definitions and their application at the national level
- low coverage for several key variables (e-resources, visits, events, opening hours, full-time-equivalent library employees and expenditures)

Such problems raise the pressing question of how best to determine the minimum dataset needed to run a library or a national library system in transitional and developing countries with vastly varied institutional structures. The results presented here stress the importance of librarians in developing countries. They also highlight the need to use literacy data to identify areas where libraries are more likely to find an easy readership or conversely, where they might play an important role in combating illiteracy.

The data gaps also suggest the need to strengthen the culture of data collection in library systems at the national level. Countries might consider undertaking a systematic and gradual approach to mapping data sources in addition to refining definitions and collection methodologies for capacity building purposes.

It is a fervent hope that other regions will be able to follow the example of Latin America and the Caribbean, and that all countries will develop library statistics to the point where consistent coverage is achieved. This will support the library sector's ability to fight illiteracy, promote access to information and foster the growth of knowledge in societies. This should be validated within the countries concerned as well as in the international arena.

**ANNEX: AVAILABILITY OF THE CORE INDICATORS BY COUNTRY**

Note: HE= Higher Education; PPPUS\$ = Purchasing Power Parity US\$

Country	Number of public libraries reported in survey	Average number of public library employees	Average number of public libraries per 1000 inhabitants	Percentage of public libraries offering internet access to users	Average number of public libraries per 1000 literate inhabitants	Average number of volumes in public libraries per 1000 inhabitants	Number of public library registered users per 1000 inhabitants	Average number of public library loans per 1000 inhabitants
Antigua and Barbuda	1	17	0.012	100.0	..	474	47.4	379.7
Argentina	27	5	0.001	51.9	0.001	8	0.6	5.5
Bahamas	32	2	0.097	81.3	0.132	555	9.1	18.3
Brazil	4801	2	0.025	9.3	0.034	...	...	...
British Virgin Islands	5	6	...	40.0	...	...	...	...
Chile	428	1	0.026	2.3	0.034	18	11.1	25.2
Colombia	1595	...	0.035	15.2	0.050	179	7.0	576.8
Costa Rica	57	2	0.013	66.7	0.018	101	...	116.2
Dominica	4	6	...	50.0	...	...	...	...
Dominican Republic	398	...	0.043	...	0.064	...	85.2	...
El Salvador	16	3	0.002	25.0	0.004	12	29.2	...
Guyana	21	7	0.028	28.6	0.041	541	253.8	215.3
Honduras	116	...	0.016	6.9	0.027	...	...	...
Jamaica	615	2	0.228	14.8	0.332	254	233.5	1277.1
Mexico	7210	1	0.068	37.1	0.098	338	2.5	23.0
Montserrat	1	7	...	100.0	...	...	...	...
Netherlands Antilles	1	12	0.005	100.0	0.007	344	29.1	635.5
Peru	826	...	0.030	...	0.044	48	...	...
Saint Kitts and Nevis	3	9	...	100.0	...	...	...	...
Saint Lucia	18	3	0.109	...	0.150	598	148.8	350.1
Saint Vincent and the Grenadines	20	2	0.167	...	0.235	2497	118.0	927.5
Suriname	7	9	0.015	14.3	0.022	87	2.4	101.3
Trinidad and Tobago	23	9	0.017	100.0	0.022	435	164.4	457.5
Uruguay	167	3	0.050	19.2	0.066	...	...	...
Venezuela	728	6	0.027	100.0	0.039	269	10.2	752.9
<b>Percentage of each indicator Availability for all countries</b>	100.0%	84.0%	84.0%	84.0%	80.0%	68.0%	64.0%	60.0%

Country	Ratio of female to male public library employees	Percentage of public libraries with websites	Average number of higher education library employees	Number of public library visits per 1000 inhabitants	Average number of vols in HE libraries per 1000 students of these institutions	Registered users in HE libraries as %age of students of these institutions	Average number of HE library loans per student of these institutions	Expenditure on literature and info. per capita by public libraries (in PPPUS\$)
Antigua and Barbuda	...	100.0	...	...	...	...	...	...
Argentina	1.06	51.9	...	11.1	...	...	...	...
Bahamas	19.00	9.4	3.1	...	3157.5	...	...	0.92
Brazil	...	...	...	...	...	...	...	...
British Virgin Islands	6.00	20.0	...	...	...	...	...	...
Chile	1.26	1.4	...	24.9	...	...	...	...
Colombia	...	2.0	...	395.8	...	...	...	...
Costa Rica	1.00	...	4.1	202.5	2019.3	17.3	2.0	...
Dominica	5.25	...	...	...	...	...	...	...
Dominican Republic	...	...	...	...	...	...	...	...
El Salvador	2.23	...	5.4	...	2151.7	21.9	...	...
Guyana	12.45	4.8	...	75.1	...	...	...	0.00
Honduras	...	...	...	...	...	...	...	...
Jamaica	...	14.8	...	...	...	...	...	0.04
Mexico	...	...	...	635.1	...	...	...	...
Montserrat	6.00	...	...	...	...	...	...	...
Netherlands Antilles	11.00	100.0	...	...	...	...	...	...
Peru	...	...	80.0	...	2171.9	21.2	1.1	...
Saint Kitts and Nevis	8.00	...	2.0	...	...	...	...	...
Saint Lucia	4.22	...	2.0	303.2	537.5	5.0	0.8	...
Saint Vincent and the Grenadines	12.67	5.0	...	...	...	...	...	5.52
Suriname	2.59	...	42.0	45.6	2430.2	4.3	0.9	...
Trinidad and Tobago	2.33	8.7	39.3	...	2790.8	12.4	1.4	...
Uruguay	...	...	4.7	...	...	...	...	...
Venezuela	...	0.1	...	462.8	...	...	...	0.04
<b>Percentage of each indicator Availability for all countries</b>	60.0%	48.0%	36.0%	36.0%	28.0%	24.0%	20.0%	20.0%

Country	Ratio of female to male higher education library employees	Expenditure on literature and info. at HE libraries per student of these institutions (in PPPUS\$)	Number of visits to HE libraries per student of these institutions	Average number of volumes in public libraries per 1000 literate inhabitants	Number of registered public library users per 1000 literate inhabitants	Average number of public library loans per 1000 literate inhabitants	Number of public library visits per 1000 literate inhabitants	Percentage of core indicator available by country
Antigua and Barbuda	...	...	...	...	...	...	...	34.8%
Argentina	...	...	...	...	...	...	...	52.2%
Bahamas	...	...	...	...	...	...	...	60.9%
Brazil	...	...	...	...	...	...	...	21.7%
British Virgin Islands	...	...	...	...	...	...	...	21.7%
Chile	...	...	...	...	...	...	...	52.2%
Colombia	...	...	...	...	...	...	...	43.5%
Costa Rica	...	851.04	...	...	...	...	...	65.2%
Dominica	...	...	...	...	...	...	...	17.4%
Dominican Republic	...	...	...	...	1.5	...	...	21.7%
El Salvador	1.63	...	...	...	...	...	...	56.5%
Guyana	...	...	...	...	...	...	...	56.5%
Honduras	...	...	...	...	...	...	...	17.4%
Jamaica	...	...	...	...	...	...	...	47.8%
Mexico	...	...	...	...	...	...	...	43.5%
Montserrat	...	...	...	...	...	...	...	17.4%
Netherlands Antilles	...	...	...	...	...	...	...	47.8%
Peru	1.43	30.83	3.9	0.8	...	...	...	52.2%
Saint Kitts and Nevis	3.00	...	...	...	...	...	...	26.1%
Saint Lucia	...	...	...	...	...	...	...	60.9%
Saint Vincent and the Grenadines	...	...	...	...	...	...	...	47.8%
Suriname	7.40	0.32	1.9	...	...	...	...	78.3%
Trinidad and Tobago	1.91	...	...	...	...	...	...	69.6%
Uruguay	...	...	...	...	...	...	...	26.1%
Venezuela	...	...	...	...	...	...	...	52.2%
<b>Percentage of each indicator Availability for all countries</b>	20.0%	12.0%	8.0%	4.0%	4.0%	0.0%	0.0%	

# EXPERIENCIA EN LA BUSQUEDA DE DATOS ESTADISTICOS SOBRE BIBLIOTECAS DE LA REPUBLICA ARGENTINA

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## Resumen

*Se presenta un panorama de la situación existente en la República Argentina sobre las estadísticas bibliotecarias, los organismos fuente, las dificultades de obtención de datos, la dispersión y falta de sistematización. Se detalla la serie de estadísticas bibliotecarias de la Ciudad de Buenos Aires. Se desarrolla la experiencia de búsqueda de datos para completar el "Cuestionario sobre estadísticas bibliotecarias" desarrollado por el Instituto de Estadística de la UNESCO. Se comentan los bloques y preguntas del cuestionario. Se concluye en la conveniencia de modificar el cuestionario para adaptarlo a la realidad de los países de América latina y el Caribe y en que es necesaria la figura de organismos coordinadores que promuevan en cada país la captación de datos de manera uniforme y fiable y su posterior y periódica difusión..*

## Abstract

*This presentation presents an overview of the situation in Argentina on library statistics, the data-providing organizations, the difficulties in obtaining data and sharing data and the lack of systematization. It lists the number of library statistics from the city of Buenos Aires and describes the experience of searching data to complete the 'Questionnaire on Library Statistics' developed by the Statistical Institute of UNESCO. We discuss the problems and questions of the questionnaire. Finally, we suggest the desirability of amending the questionnaire to suit the realities of the countries of Latin America and the Caribbean and the necessity of the coordinating body to promote in each country a uniform and reliable data capture and its subsequent and regular dissemination.*

## 1. INTRODUCCIÓN

Las estadísticas y los indicadores están mucho más estudiados como método que como objeto específico de estudio. En 1946, con la creación de la UNESCO, integrada por cuarenta y cuatro países, comienzan los estudios estadísticos en un intento por comprender el nuevo orden económico y social generado tras la segunda Guerra Mundial.

Es recién en 1960 cuando aparece el término de indicador social, pero los indicadores culturales en cambio, son mucho más recientes. La política cultural en

contraste con la política social sólo ha tenido interés para los gobiernos desde hace muy poco tiempo (Carrasco Arroyo, 1999. Taber, 2005). Sin embargo, la UNESCO, desde 1970 sintió especial preocupación por establecer metodologías de medición en el campo de la cultura y es por eso que el indicador cultural nace como una herramienta con la que afrontar el tradicional desinterés gubernamental ante la política cultural.

La información estadística cultural, que incluye los datos sobre bibliotecas, se convierte entonces en la base para el diseño de todo programa en el campo de la cultura y de la participación social. La falta de estadísticas bibliotecarias y especialmente de series, la fragmentación de datos y el escaso interés en la región, desde los hacedores de políticas, para sistematizar la recolección con vías a la comparación internacional, atenta contra el desarrollo educativo y cultural de los países involucrados.

## 2. ESTADÍSTICAS BIBLIOTECARIAS

Según la UNESCO las estadísticas relativas a las bibliotecas dan indicaciones esenciales sobre la influencia de toda clase de bibliotecas y facilitan, con ello, el planeamiento de su desarrollo (UNESCO, 1970).

Las *Recomendaciones sobre la normalización internacional de las estadísticas relativas a las bibliotecas* promovidas por la UNESCO en la Conferencia General de 1970<sup>1</sup> con la finalidad de que los países miembros adoptaran un modelo estadístico normalizado para mejorar la recopilación de datos y la comparación internacional no fue tenida en cuenta por Argentina, envuelta en una situación política inestable y con gobiernos poco dispuestos a prestar atención a la cultura y mucho menos a las bibliotecas.

Las estadísticas bibliotecarias pueden provenir de fuentes oficiales y no oficiales. Fuentes oficiales serían por ejemplo los institutos o direcciones nacionales o provinciales de estadística y las fuentes no oficiales podrían ser las de asociaciones, institutos, grupos o las propias bibliotecas que recopilan datos con la finalidad de aplicar indicadores para el gerenciamiento institucional.

Si bien los datos estadísticos se dividen en datos de origen administrativo o encuesta, la mayoría de los datos estadísticos sobre bibliotecas son de origen administrativo como el conteo de usuarios o de transacciones (préstamos). Las bibliotecas en forma individual pueden tener datos obtenidos a través de encuestas de satisfacción, que como dijimos anteriormente tienen un uso particular. Pero, gracias a sistemas, protocolos y acuerdos de alcance internacional podría lograrse la comparación internacional de por lo menos los datos administrativos.

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<sup>1</sup> UNESCO. General Conference. Actas de la Conferencia General, 16ª reunión, París 12-14 octubre 1970.

## **2.1. Estadísticas bibliotecarias en la República Argentina**

La Argentina es una república federal que cuenta con un alto nivel de desagregación geográfica. En Argentina, no existen datos bibliotecarios a nivel nacional, pero sí existen datos fragmentados a nivel provincial y aún más reducido como a nivel de localidad. También es posible que muchos datos existan, pero que no estén sistematizados ni difundidos.

### **2.1.1 El INDEC**

El Instituto Nacional de Estadística y Censos (INDEC)<sup>2</sup> es el organismo público, de carácter técnico, que unifica la orientación y ejerce la dirección superior de todas las actividades estadísticas oficiales que se realizan en el territorio de la República Argentina. Su creación y funcionamiento está reglamentado por la Ley 17.622 y el Decreto 3110/70 y 1831/93.

La ley le confiere responsabilidad directa en el diseño metodológico, organización y dirección de los operativos nacionales de relevamiento a través de censos y encuestas, la elaboración de indicadores básicos de orden social y económico y la producción de otras estadísticas básicas.

El INDEC también tiene la responsabilidad de coordinar el Sistema Estadístico Nacional (SEN), bajo el principio de centralización normativa y descentralización ejecutiva. Esto significa que el INDEC es responsable del desarrollo metodológico y normativo para la producción de estadísticas oficiales, asegurando la comparabilidad de la información originada en distintas fuentes.

El SEN está integrado por los servicios estadísticos de los organismos nacionales, provinciales y municipales. En cada provincia existe una Dirección de Estadística dependiente del gobierno provincial. Dichas Direcciones coordinan los Sistemas Estadísticos Provinciales, e intervienen en la captura, ingreso y procesamiento de información a nivel provincial. Esta es consolidada por el INDEC o por otros servicios nacionales para la obtención de información a nivel nacional.

La producción de información estadística se realiza a través de distintos métodos de captación de datos (censos, encuestas, registros administrativos, etc.), que permiten la confección de indicadores en relación a diferentes áreas temáticas.

EL INDEC no recopila ni difunde desde su creación en 1968 datos estadísticos referidos a bibliotecas argentinas.

### **2.1.2 La CONABIP**

La Comisión Nacional Protectora de Bibliotecas Populares (CONABIP)<sup>3</sup> es el organismo estatal dependiente de la Secretaría de Cultura de la Presidencia de la Nación que desde 1870 apoya y fomenta el desarrollo de bibliotecas populares en todo el territorio de la República Argentina.

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<sup>2</sup> <http://www.indec.mecon.ar>

<sup>3</sup> <http://www.conabip.gov.ar>

Existen casi dos mil bibliotecas populares en todo el país, los datos están registrados en la red de la CONABIP quien recopila datos con la finalidad de categorizar a las bibliotecas populares, pero los utiliza en forma interna y no los difunde.

### **2.1.3 La Secretaría de Políticas Universitarias**

La Secretaria de Políticas Universitarias (SPU)<sup>4</sup> dependiente del Ministerio de Educación de la Nación es la encargada de organizar un sistema de monitoreo permanente de indicadores sobre el sistema universitario argentino. También supervisa el diseño, organización y planificación de recopilación, procesamiento y publicación de la información estadística relativa al sistema universitario. Desarrolla acciones tendientes a generar un mejor uso y aprovechamiento de la información universitaria disponible y promueve el intercambio de nuevas metodologías de análisis de la información.

La SPU publica el Anuario de Estadísticas Universitarias, pero esta publicación no contiene información sobre estadísticas de bibliotecas universitarias.

## **3. ESTADISTICAS DE LA CIUDAD DE BUENOS AIRES**

Desde su creación en 1887 hasta la fecha la Dirección General de Estadística y Censos de la Ciudad de Buenos Aires (DGEyC)<sup>5</sup> se constituyó en el organismo oficial para la difusión de estadísticas sobre la ciudad.

La DGEyC tiene entre sus funciones, realizar censos y encuestas en el ámbito geográfico de la Ciudad y coordinar y dirigir los servicios que conforman el Sistema Estadístico de la Ciudad (SEC), como lo establece la Ordenanza 35.386/79. Este sistema integra la información originada en todas las áreas del sector público y privado que producen datos de interés y relevancia para la Ciudad.

Este flujo de información sumado al generado por la propia DGEyC conforma un acervo estadístico que da sustento al análisis de la realidad socioeconómica de la Ciudad y a la definición de políticas públicas. Esta información, procesada y organizada, va constituyendo un banco de datos y de documentación que queda resguardado en la institución, se difunde y también da origen a diversas publicaciones.

El Centro de Documentación y Atención al Usuario es un centro de documentación especializado en datos estadísticos sobre la Ciudad de Buenos Aires, fue creado en el año 2002 sobre la base de una pequeña biblioteca existente. En el año 2005 el Centro certificó su sistema de gestión de la calidad con la norma ISO 9001:2000. En agosto de 2007 se amplió la certificación a toda la DGEyC. El Centro de documentación recopila estadísticas administrativas y de satisfacción que le permiten formular indicadores para la mejora continua.

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<sup>4</sup> <http://www.me.gov.ar/spu>

<sup>5</sup> [http://www.buenosaires.gov.ar/areas/hacienda/sis\\_estadistico/?menu\\_id=5867](http://www.buenosaires.gov.ar/areas/hacienda/sis_estadistico/?menu_id=5867)

### 3.1 Estadísticas bibliotecarias de la ciudad de Buenos Aires

Las estadísticas bibliotecarias de la ciudad de Buenos Aires se remontan al año 1887 y se publican en forma ininterrumpida hasta la actualidad. No obstante, debido a los avatares de la vida política de la ciudad y del país, se encuentran altibajos en la producción y difusión de las series estadísticas bibliotecarias<sup>6</sup> que fueron teniendo en cuenta a lo largo de los años mayor o menor cantidad de variables dependiendo de la época y las autoridades locales.

Los primeros datos corresponden a las cuatro bibliotecas más importantes de la ciudad, entre las que se encontraba la Biblioteca Nacional, las tablas se publicaron como: “Movimiento de las bibliotecas oficiales y populares de la Capital” (*Anuario Estadístico*, 1891 p. 528). Curiosamente los únicos datos recopilados son: “Número y género de las obras consultadas” y “Nacionalidad de los concurrentes”. El género de las obras consultadas se reducía a: Derecho, Ciencias, Historia, Literatura y Diarios.

Es interesante mencionar que hasta 1970 las estadísticas bibliotecarias se encontraban agrupadas junto con las educativas y posteriormente fueron incorporadas al capítulo de Cultura.

Los datos estadísticos que pudieron registrarse en el cuestionario fueron ubicados en el Anuario Estadístico de la ciudad de Buenos Aires 2006 y por medio de la consulta a las bibliotecas de la ciudad<sup>7</sup>. La metodología de trabajo consistió en:

- Consulta a las páginas Web de las bibliotecas o a la base mailing de la DGEYC para ubicar a los responsables (nombre y teléfono)
- Análisis del cuestionario de la UNESCO y adaptación de las preguntas para que resultaran más comprensibles
- Entrevista telefónica con cada una de los responsables para que respondieran el cuestionario adaptado.
- Consulta al Banco de Datos y Series Estadísticas de la DGEyC.
- Recopilación de los datos, procesamiento y análisis para volcar en el cuestionario de la UNESCO.

En el Anuario Estadístico de la ciudad de Buenos Aires correspondiente al año 2006, en el capítulo Cultura se encuentran las series:

- Lectores en bibliotecas para adultos del GCBA, según biblioteca. Ciudad de Buenos Aires. Años 1980–2006.
- Lectores en bibliotecas infantiles<sup>8</sup> del GCBA, según biblioteca. Ciudad de Buenos Aires. 2000–2006.

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<sup>6</sup> Texidor, Silvia. “Editar estadística: historia de las publicaciones de la DGEyC de la ciudad de Buenos Aires, 1887-2006” (no publicado)

<sup>7</sup> <http://www.bibliotecas.gov.ar/areas/cultura/bibliotecas/>

<sup>8</sup> A partir del año 2000 se incorporaron en algunas de las bibliotecas salas especiales destinadas a los niños denominadas bibliotecas infantiles. Las mismas orientan su oferta a un público de hasta 12 años de edad aproximadamente.

- Lectores en bibliotecas del GCBA por mes, según tipo de biblioteca. Ciudad de Buenos Aires. 2005
- Obras consultadas en bibliotecas del GCBA por tipo de biblioteca y tipo de consulta (total, sala y circulante discriminado por adultos e infantiles) según biblioteca. Ciudad de Buenos Aires. 2005
- Obras consultadas en bibliotecas de adultos del GCBA por materia (obras generales, filosofía, religión, sociología, ciencias, ciencias aplicadas, bellas artes, literatura, historia y geografía) según biblioteca. Ciudad de Buenos Aires. 2005
- Obras consultadas en bibliotecas infantiles del GCBA por materia (ídem división adultos) según biblioteca. Ciudad de Buenos Aires. 2005

La fuente de estos datos es la Dirección General del Libro y Promoción de la Lectura perteneciente a la Secretaría de Cultura del GCBA.

## **4. DIFICULTADES EN LA OBTENCION DE ESTADISTICAS BIBLIOTECARIAS**

A pesar de la existencia del SEN, coordinado por el INDEC, las estadísticas bibliotecarias no han sido una preocupación a nivel nacional. Lo expuesto en los ítems anteriores da cuenta de la dificultad para encontrar datos globales, especialmente a nivel país, teniendo en cuenta, sobre todo, el aspecto ya mencionado sobre el alto grado de descentralización gubernamental que existe en la Argentina<sup>9</sup>.

Esta situación heterogénea y caótica, unida a la falta de un organismo coordinador de estadísticas bibliotecarias que adopte una metodología internacional de recopilación y coordine el sistema atenta contra la deseable uniformidad de los datos recopilados.

### **4.1 Estadísticas de bibliotecas públicas**

La primera consulta se realizó al INDEC con el fin de determinar la existencia de estadísticas del resto del país. Las fuentes analizadas incluyeron: página Web del INDEC; *Anuario Estadístico de la República Argentina*; catálogo del Centro Estadístico de Servicios.

En segundo lugar se consultaron: las páginas Web de las Direcciones de Estadísticas Provinciales, y se enviaron mails a las bibliotecas y centros de documentación de dichas instituciones (vale aclarar que no todas las Direcciones tienen biblioteca).

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<sup>9</sup> La Argentina es una país federal con 23 provincias y la ciudad autónoma de Buenos Aires. Cada una con sus tres poderes, Ejecutivo, Legislativo y Judicial. Cada una de estas 24 jurisdicciones tiene una Dirección de Estadísticas propia. A su vez, muchos municipios tienen Oficinas de Estadística a nivel local.

Estas consultas resultaron infructuosas y no se pudieron localizar datos que permitieran completar el cuestionario de UNESCO.

#### **4.2 Estadísticas de bibliotecas universitarias**

Respecto de las estadísticas de bibliotecas universitarias la metodología utilizada fue parecida: consulta a la lista de ABGRA<sup>10</sup> para ubicar las estadísticas universitarias; consulta del Anuario de Estadísticas Universitarias de la Secretaría de Políticas Universitarias de la Nación; consulta a las estadísticas del SISBI<sup>11</sup> que si bien registra estadísticas, no fueron tenidas en cuenta por ser las más recientes las del año 2005 y de una sola universidad, la UBA.

También en este caso las consultas no fueron exitosas y los ítems relativos a las bibliotecas universitarias no fueron completados en el cuestionario de la UNESCO.

### **5. CUESTIONARIO DEL INSTITUTO DE ESTADÍSTICA DE LA UNESCO**

El cuestionario es el instrumento de la encuesta piloto lanzada en julio de 2007 por el Instituto de Estadísticas de la UNESCO (IEU) para cubrir información sobre América Latina y el Caribe. La finalidad de este proyecto es constituir una metodología de recopilación para ofrecer fuentes estadísticas de excelencia que permitan la comparación internacional.

Los primeros resultados se publicarán en el sitio del IEU, posiblemente durante este año; luego serán difundidos también a través de los informes internacionales y publicaciones de la UNESCO.

#### **5.1 Sugerencias sobre el cuestionario**

Si bien nuestra experiencia es exclusivamente sobre Argentina creemos que podría generalizarse a América Latina que, salvo excepciones, carece de estadísticas bibliotecarias sistematizadas y donde sus bibliotecas públicas, oficiales, populares (no incluimos a las universitarias) también carecen de presupuesto para suscripciones electrónicas y cantidad suficiente de equipamiento informático para brindar servicios, desde el más básico, como acceso a Internet, hasta el más sofisticado como los e-books.

Estas apreciaciones sobre la Argentina, se fundamentan en la investigación, de la cual participamos años atrás, sobre las bibliotecas públicas y populares de la Ciudad Autónoma de Buenos Aires (CABA) que dan cuenta de esta situación a través del informe de investigación “¿Buenos Aires lee? aportes para interpretar la

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<sup>10</sup> Asociación de Bibliotecarios Graduados de la República Argentina

<sup>11</sup> Sistema de bibliotecas y de información Universidad de Buenos Aires

Tabla 1. Observaciones al Cuestionario sobre Estadísticas Bibliotecarias de la UNESCO

<b>BLOQUE</b>	<b>TEXTO</b>	<b>OBSERVACIONES</b>
<b>Bloque de identificación de las personas</b>	<b>Ministerio u organismo gubernamental</b>	Biblioteca Nacional (BN) y Oficina Nacional de Estadística (ONE) son gubernamentales también. Definir con otros términos.
<b>1. Bibliotecas y acceso a instalaciones</b>	<b>1.1 Número de bibliotecas</b>	- Debería incluirse el dato de población atendida (usuarios reales y potenciales) discriminar por sexo como está estipulado para el personal.- Podría discriminarse entre estatales y privadas en el caso de las Bibliotecas Universitarias. – Incorporar preguntas sobre instalaciones y equipamiento.
	<b>1.4 Servicios electrónicos por tipo</b>	- Trasladar a otro bloque las preguntas sobre servicios. Debería haber un bloque sobre SERVICIOS
<b>2. Colección</b>	<b>2.1 Número de volúmenes (impreso)</b>	- Sería conveniente que estuviera también el número de títulos.
	<b>2.2. Número de títulos (electrónicos)</b>	- Sería conveniente que estuviera el dato para ambos formatos (electrónico e impreso). – En Argentina difícilmente las Bibliotecas Públicas tengan suscripciones electrónicas ni bases de datos por suscripción.
	<b>2.2 Publicaciones electrónicas en serie (suscripciones)</b>	- Solicitar también datos sobre títulos de publicaciones periódicas en curso.
	<b>2.2 Bases de datos (adquiridos o con licencia)</b>	- No corresponde para las Bibliotecas Públicas.Es correcto para las universitarias.
<b>4. Usos y usuarios de biblioteca</b>	<b>4.1 Número total de usuarios inscritos</b>	- Se deja de lado al usuario que puede consultar, pero que no es socio de la biblioteca. – La diagramación del cuestionario no permite agruparlos por edad. Discriminar por sexo como está estipulado para el personal.

	<b>4.2 Número total de unidades de contenido descargadas desde colecciones electrónicas</b>	- Debería incluirse el préstamo interbibliotecario como un ítem aparte porque muestra las relaciones interinstitucionales y el aprovechamiento de recursos documentales en un país con escaso presupuesto para las bibliotecas.
	<b>4.2 Número total de unidades de contenido descargadas desde colecciones electrónicas</b>	- No queda claro quien las descarga: ¿el bibliotecario?, ¿el usuario?, y desde qué colecciones electrónicas.
	<b>4.2. Total de visitas</b>	- Sería conveniente colocarlo en 4.1 porque se menciona al usuario y en 4.2. a los documentos y/o transacciones
<b>5. Personal de bibliotecas</b>	<b>5.1 Número de empleados</b>	- Deberían incluirse algunas preguntas sobre formación del personal
	<b>5.2 Número de empleados a tiempo completo</b>	
<b>6. Gastos</b>		Es difícil diferenciar los gastos en la biblioteca pública porque: – Los gastos de personal se incluyen en el presupuesto global de la organización local/municipal. – No hay adquisición directa desde la biblioteca. Generalmente se reciben los libros y revistas por compra centralizada.
<b>Anexo. Definiciones</b>		Se definen conceptos que no están incluidos en el cuestionario, por ejemplo: – Punto 2: libros (impresos); títulos. – Punto 4: contenido descargado y unidades de contenido (se presenta confuso)
	Biblioteca pública <i>“Esta definición incluye los servicios que una biblioteca pública presta a las escuelas”</i>	¿Es sinónimo de biblioteca escolar? (confusión)

realidad de nuestras bibliotecas públicas y populares: informe 2005” cuyos ejes de investigación fueron:

1. Las bibliotecas de la CABA en relación a su emplazamiento e infraestructura edilicia.
2. Las bibliotecas de la CABA en relación al personal que trabaja en ellas (incluye formación del personal y cantidad).
3. Las bibliotecas de la CABA en relación al funcionamiento e interacción institucional (incluye cantidad de usuarios atendidos, préstamos, cantidad de volúmenes, tipo de material más consultado, actividades que se realizan)

Según los datos del año 2005 la Ciudad de Buenos Aires cuenta con alrededor de 2,800,000 habitantes y tiene 26 bibliotecas públicas y 51 bibliotecas populares (*Buenos Aires lee*, p. 25)

Este tipo de bibliotecas prácticamente reemplaza a las escolares porque alrededor del 50% del material más consultado son los libros de texto (*Buenos Aires lee*, tabla 32, p. 48) esto estaría mostrando una mayor cercanía de la biblioteca pública con la educación más que con la cultura.

‘Esta situación impone un debate central pero pendiente aún acerca de las funciones sociales que deben cumplir las Bibliotecas de acceso público. ¿Deben satisfacer la demanda creada por el sistema educativo actual en combinación con las grandes editoriales de manuales escolares, y de esta forma transformar a las Bibliotecas en un proveedor de servicios, o bien cuestionar esta demanda en la convicción de que es necesaria otra política para el sector?’ (*Buenos Aires lee*, 2006, p. 59)

Partiendo de esta experiencia y como contribución para la mejora del cuestionario recibido desarrollamos el análisis expuesto en la Tabla 1. Se aclara que solo se incluyen los ítems observados.

## 6. CONCLUSIONES

Celebramos la existencia del proyecto piloto que nos permite como remitentes sacar varias conclusiones que incluyen logros positivos y mejoras pendientes.

Respecto de los logros podemos decir que:

- El proyecto reitera la preocupación de la UNESCO para contar con estadísticas bibliotecarias fiables y comparables para América Latina y el Caribe.

Las propuestas incluyen:

- Mejorar el instrumento de recolección de datos para que los ítems del cuestionario respondan a la realidad latinoamericana.

- Sería deseable que en la realización del instrumento definitivo participaran representantes de América Latina y el Caribe quienes podrían aportar una visión más realista de la región.
- Revisar las definiciones del cuestionario para asegurar que esté representada la diversidad terminológica de América Latina y el Caribe con mayoría lingüística de español.
- Orientar en la manera de cuantificar los datos (medida) con una capacitación antes de instalar en América Latina y el Caribe el cuestionario de UNESCO. Esto se fundamenta en que los datos existentes es probable que estén medidos de otra manera.
- Traducir el cuestionario al portugués para facilitar la recopilación de datos en Brasil por tratarse del país con mayor población y bibliotecas de la región.
- Dividir el cuestionario único en dos cuestionarios, uno para bibliotecas públicas y otro para bibliotecas universitarias. Esto se fundamenta en la necesidad de realizar diferentes tipos de preguntas que deberían hacerse en la recolección de información.
- Enfatizar el enfoque hacia las colecciones impresas asignándoles la misma importancia que a las colecciones electrónicas, especialmente en las bibliotecas públicas.
- Impulsar el cumplimiento de las recomendaciones emanadas por UNESCO hace treinta y siete años sobre los organismos encargados de recoger y comunicar los datos estadísticos relativos a las bibliotecas en cada país miembro.
- Fomentar, a través de acuerdos o compromisos, la coordinación de recepción y envío de datos a nivel país en entidades calificadas que se comprometan formalmente con dicha actividad, una para las bibliotecas públicas y otra para las bibliotecas universitarias.
- Determinar la recopilación de estadísticas bibliotecarias con periodicidad anual. Esto se fundamenta en la necesidad de evitar la pérdida de información y obligar a las organizaciones recolectoras a mantener una conducta sistemática.

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# TRINIDAD AND TOBAGO'S RESPONSE TO UNESCO'S SURVEY ON GLOBAL STATISTICS

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## ABSTRACT

*The paper describes the work of the National Library and Information System Authority of Trinidad and Tobago, and the methodology it used in compiling the data requested by the questionnaire on library statistics.*

## INTRODUCTION

The National Library and Information System Authority (NALIS) adopted the IFLA/UNESCO Public Library Manifesto 1994 because the organization is committed to ensuring that its practices are in keeping with international standards, for the benefit of the citizens of Trinidad and Tobago. To this end, the Research and Planning Division of NALIS is mandated to bench mark the operations of the public libraries using the IFLA public library standards as guidelines.

NALIS works collaboratively across the globe to ensure that its users obtain the best services and resources available. NALIS co-operates with relevant partners, such as the UNESCO Institute of Statistics, in any exercise and recommendations to improve the way in which the information field conducts and improve its business.

Data collection as it relates to the function of the public libraries has always been one of the core functions of the operations of NALIS. Data, when collected are tabulated and used as an internal mechanism to ensure the efficient use of scarce resources. Data is also used for forecasting and to analyze the operations of the library.

The traditional areas of collection in the public libraries and other types of libraries are output measures:

- Circulation
- Bookstock
- Overdues
- Computer/Internet
- Queries
- Internet training
- Registration

Input measures, such as staffing and financial resources are core administrative functions. The management of the financial and human resources are the responsibility of the administrative department.

This survey by the UNESCO Institute of Statistics, which was piloted in Latin America and the Caribbean, will assist to monitor the activities of the public and higher education libraries in Trinidad and Tobago. As UNESCO states ‘Libraries play a vital role in providing access to information and knowledge,’ a world view endorsed by NALIS .

NALIS recognizes that participating in this exercise and providing statistics that is accurate and current is vital to the development and progress of a knowledge-based society.

For this survey, NALIS was the source of information for the public libraries. The higher education libraries were identified as:

- The University of the West Indies, St. Augustine
- The University of Trinidad and Tobago
- College of Science Technology & Applied Arts of Trinidad and Tobago
- The University of the Southern Caribbean

## **THE NATIONAL LIBRARY AND INFORMATION SYSTEM AUTHORITY (NALIS)**

NALIS is responsible for administering and co-coordinating the network of public libraries, school libraries and the special libraries in Trinidad. The libraries of Tobago are under the jurisdiction of the Tobago House of Assembly. There is a Memorandum of Understanding between NALIS and the Tobago House of Assembly which was signed in June 2005. There are 23 public libraries in Trinidad and Tobago and three mobile libraries. Any recommendations pertaining to libraries in Tobago are forwarded to the Chief Secretary Tobago House of Assembly.

### **The Mandate of NALIS**

Act No. 18 of 1998 mandates the National Library and Information System Authority (NALIS) to:

Provide a national library and information service, easily accessible to members of the public in order to facilitate cultural, economic, educational, political and social development of the people of Trinidad and Tobago ...

### **The Vision of NALIS**

‘... is to become a dynamic network, innovative, business-like, customer-focused and community-oriented, offering information services to the nation and the world.’

### **The Mission of NALIS**

‘... is to provide an international standard of service that delivers equitable access to information in all formats, through highly capable and motivated

staff, utilizing state-of-the-art technologies and facilities to support the development and recreational needs of the citizens of Trinidad and Tobago.'

### **The Goals of NALIS**

NALIS has clearly defined goals, which are aligned with the vision of the government of the Republic of Trinidad and Tobago. This vision by the government for the nation is to achieve developed-nation status by 2020. The vision of NALIS as stated goals is therefore:

1. Information accessibility
2. Advice to Government on library-related matters
3. Formation of strategic alliances
4. Lifelong learning and enrichment
5. People-centered and community-focused institutions

### **The Functions of NALIS**

are to

- a) Provide a national library and Information service, easily accessible to members of the public in order to facilitate cultural, economic, educational, political and social development of the people of Trinidad and Tobago.
- b) Maintain, develop and make easily accessible to members of the public a comprehensive collection of material and information, with particular emphasis on that produced within and about Trinidad and Tobago and the Caribbean region.
- c) Advise the Minister on all matters pertaining to a National Library and Information System Authority.
- d) Act as the central co-coordinating agency for library and information services by:
  - (i) Facilitating library and information services to schools, government ministries and agencies; and
  - (ii) Providing the link for cooperation between public sector libraries of tertiary institutions, the private sector and the National Archives.
- e) Provide consultancy and management services to the public and private sectors in matters for and in relation to the establishment and conduct of a library;
- f) Provide, and arrange for the provision of educational, advisory and information services relating to the establishment and conduct of a library;
- g) Assume responsibility as a designated legal depository for the purpose of (Legal Deposit) Act, 1985;
- h) Create the national bibliographic records;
- i) Provide a national referral service for information, library and material and material in other libraries, public and private;
- j) Act as a national depository

- k) Provide the focus for an international document supply service
- l) Promote literacy skills and awareness in the use of library material within the community.
- m) Provide a national information service for the benefit of challenged persons
- n) Provide a central co-coordinating point for research in library and information
- o) Manage the national human resources of library and information science personnel in Public Service bodies
- p) Preserve, promote and exploit our national heritage information.

### **Organizational Structure of NALIS**

The Headquarters and administrative arm of NALIS is in the National Library Building, strategically located in of Port of Spain, the capital city of Trinidad and Tobago.

NALIS is responsible for administering and coordinating the network of public libraries, school libraries and the special libraries in Trinidad, through centralized support services:

#### *Administration:*

- i. Human Resource Management
- ii. Accounting
- iii. Public Relations and Marketing

#### *Information Support Services*

- i. Access to we-based resources
- ii. Multi-media
- iii. E-Resources
- iv. On-line catalogue of all materials

#### *Preservation and Conservation*

- i. Digitization and microfilming

#### *Technical Processing*

- i. Acquisition
- ii. Classification and Cataloguing

## **METHODOLOGY**

1. The first step involved identifying higher education institutions with libraries.
2. The information was obtained from the Ministry of Education website at [www.moe.gov.tt/news.html](http://www.moe.gov.tt/news.html)
3. The identified libraries were contacted via e-mail or phone indicating that their cooperation was needed to complete the questionnaire. A cover letter

was forwarded with a copy of the questionnaire to the Head Librarian requesting the assistance of the institution in this collaborative effort.

4. The UNESCO Institute of Statistics website was also forwarded to the institutions to allow them download the questionnaire. The libraries were asked to complete the sections applicable to them and e-mail the completed responses to the Planning and Research Division of NALIS.
5. The completed questionnaires were tabulated and forwarded to the UNESCO Institute of Statistics.

## CONCLUSION AND RECOMMENDATIONS

The overall rate of response from the higher education libraries was 1%. Of the four identified libraries: The University of the West Indies, St. Augustine, The University of Trinidad and Tobago, The University of the Southern Caribbean, and the College of Arts Science and Technology, only the Library of the University of the West Indies responded and in a timely manner.

Generally the questions were clear and concise unambiguous, with a few exceptions.

The areas which required clarification were:

### *Libraries: Access and facilities – Unclear*

- Question 1.4 – Access to commercial e-resources free of charge. Did the free of charge refer to the patrons or the library?
- Access to commercial e-resources by outside payment – was it to patrons or the library.

### *Expenditure:*

- Question 6. The figures were not readily available for total operating expenditure and staff costs for the public libraries. The timeframe for completing and submitting the questionnaire did not allow for lengthy delays to responses from the relevant departments.

### *Top Libraries (Supplementary Section)*

- In the context of Trinidad and Tobago, where there is one Public Library network, was it the Branch Libraries that were to be listed according to the number of volumes?

### *Loans and Usage*

- Total number of download units was not available for both the public and higher education libraries.

It is recommended that the questionnaire should be sent three months in advance of due date.

The suggested areas for which data could be collected include; the number of visitors to the library, the purpose for visiting the library, the number of computers available for users, the accessibility of the library, and facilities for challenged users as well as the number of challenged individuals who use the library.

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# **BENCHMARKING IN THE FORM OF PERFORMANCE INDICATORS AND BALANCED SCORECARD**

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## **ABSTRACT**

*Quality measures like performance indicators and user satisfaction surveys are in widespread use in libraries and have been described in handbooks and ISO standards. Libraries using the same measures repeatedly can identify gaps and failures in their service delivery. But in many cases it will be difficult to interpret the measurement results in an individual library without a background of results in other libraries. Therefore, groups of libraries have tried to find consensus on measuring instruments like performance indicators or user surveys that can be used for benchmarking on a national or regional scale. Such projects have been started in the last decade by public libraries as well as academic libraries.*

*In several of these projects, the performance indicators are organised according to the Balanced Scorecard, a concept originally developed for the commercial sector*

*The Balanced Scorecard ,translates' the planning concept of an institution (mission, strategic vision and goals) into a system of quality indicators that covers all important perspectives of performance: finances, users, internal processes, learning and growth.*

*The paper describes benchmarking projects and the influence of the Balanced Scorecard concept and – by examples – tries to prove the usefulness of benchmarking data for quality management.*

## **EVALUATION OF QUALITY IN LIBRARIES**

Quality in libraries can have many aspects, and these aspects can change if seen from the point of view of the various stakeholders: The users (actual and potential users), funding institutions (a university, a community), policy makers, library staff, library managers, and the general public. But there are some basic issues that apply to the overall quality of service delivery in libraries:

- *User-orientation of the services:* This does not mean satisfying every possible demand, but knowing users' needs and wishes and adapting the services accordingly.
- *Accuracy and reliability of the services:* Users should be able to rely on an agreed standard of a service, and the service should be delivered consistently.
- *Speed and currency of the services:* Services (reference answers, loans, document deliveries, processing of new media) should be delivered with adequate speed and should be up-to-date (catalogues, e-journals).

- *Accessibility*: The library building, the print and electronic collections and the other services should be easily accessible, even for inexperienced users. Examples are adequate opening times, efficient sign-posting, usability of the catalogue and website, simple-to-use online services, easily understandable language everywhere.
- *Competence and helpfulness of staff*: Staff should be well trained in traditional and new services, should be friendly and responsive, and should possess communication skills.
- *Effectiveness and efficiency*: All processes in the library (background services as well as direct user services) should be well organised and streamlined, so that good services can be produced with minimum resources.

There are various options for assessing the quality of library services:

- *Performance indicators* measure the effectiveness and cost-efficiency of library services. They produce quantified data and are therefore sometimes called 'objective'.
- *User surveys* measure the perceived quality, users' estimate of library services. They produce qualitative data and have a subjective bias.
- *Outcome assessment* tries to prove the value and benefit of libraries for individual users and society.

This conference deals with quantified data (statistics and performance indicators).

## PERFORMANCE INDICATORS

Performance indicators (performance measures, quality indicators) have been in use in libraries since several decades. They measure on one side the effectiveness in delivering services to users and, on the other side, the cost-effectiveness, the efficient use of existing resources.

Libraries have started to use performance indicators above all for internal management; the goal is to get detailed knowledge about strong or weak points in the services. If the same indicators are used regularly over years, it will be possible to recognise developments and to follow the consequences of measures taken for ameliorating performance. But the results of performance measurement in an individual library can be difficult to interpret, while they may become meaningful if compared to those of other libraries. Comparison of results will be possible, if the following criteria are fulfilled:

- The libraries should have a similar structure and clientele.
- All data to be collected should be defined in the same way.
- The libraries must use the same methods of collecting the data and of calculating the results.

Definitions of libraries and their services are given in the international standard ISO 2789.<sup>1</sup> In order to support uniform procedures in performance measurement, performance indicators have also been standardised within the frame of ISO (International Organisation for Standardization).

- ISO 11620: 2008 (2nd ed.) Information and documentation – Library performance indicators
- ISO TR 28118 (2008) Information and documentation – Performance indicators for national libraries<sup>2</sup>

The standard ISO 11620 describes 45 indicators meant for all types of libraries. Its second edition covers indicators for traditional as well as electronic library services. The Technical Report 28118 aims at national libraries, whose special conditions and tasks were not covered by ISO 11620.

The IFLA handbook *Measuring Quality* that was first published in 1996 came out in a revised edition in 2007 and describes 40 indicators.<sup>3</sup> It differs from the ISO standard in giving more practical details and showing examples where libraries have used the indicators. There is indeed no lack of well documented performance indicators to choose from for the needs of individual libraries.

The data needed for calculating performance indicators are not always easy to find. They have to be collected from:

- The annual library statistics (e.g. number of visits, of user workplaces ...)
- The statistics of the library's institution or community (e.g. number of students, number of inhabitants)
- The automated library system (e.g. number of loans, of active users, of ILL requests ...)

Some data must be collected manually for an indicator (e.g. number of workplaces that are in use at a certain time).

Performance measurement certainly involves extra effort in order to get correct and reliable data. But that effort is in most cases worthwhile, as the results support management decisions and can be used for promoting the library's role to funders, policy makers, and the public.

This conference focuses on new library statistics that are meant to be used on an international basis and for comparison between countries and over time. Though the dataset is but small compared to the ISO standard 2789, yet quite a number of performance indicators can be made up with these data, especially if they are set in comparison to the 'population' of libraries (inhabitants, students).

<sup>1</sup> ISO 2789 (2006), Information and documentation – International library statistics.

<sup>2</sup> The Technical Report will be published end of 2008

<sup>3</sup> Poll, R. and te Boekhorst, P. (2007), *Measuring quality: Performance measurement in libraries*, Saur, München (IFLA Publications 127)

Examples:

- Number of volumes in public libraries per 1,000 inhabitants
- Average number of loans per student

## JOINT PERFORMANCE MEASUREMENT PROJECTS

There is a long tradition of libraries joining in collecting and publicising their statistics. They do this on a regional or national scale, usually separately as to library types.

Performance measures were first of all used in individual libraries, till the idea of comparing and benchmarking with others led to one-time or even long-time joint projects. There are several examples by now where groups of libraries have found consensus on a set of performance indicators that would suit all of them. It is not at all easy to identify such indicators. The problems are:

- If the indicators are meant to be applied by all libraries in the group, only such indicators can be selected that fit the main tasks of the libraries. Special tasks of individual libraries, such as legal deposit right or rare collections, would not be represented.
- The indicators should be ‘just’, not giving undue advantage to some libraries, e. g. by good marks for large new buildings, which most libraries will not be able to attain.
- And of course every library will prefer indicators that will make it come out at the top.

It can take a year or more from the planning phase to the start of a joint performance measurement project. Some projects have restricted themselves to selecting adequate indicators for the libraries in the group and describing them in a handbook, but without making the use of these indicators in any way compulsory. There is only a recommendation to use specified indicators in the way described.

Examples are:

- *The Swedish Quality Handbook*<sup>4</sup> that was developed in a 3-years project 2001–2004 for all types of libraries
- *The Norwegian indicators*<sup>5</sup> for academic and public libraries that appeared in a 4<sup>th</sup> revision in 2007

In several other projects, a set of performance indicators is used regularly, in some cases already for years. The indicators are either defined by the participating libraries, or they are calculated by authorities, using the regular library statistics.

<sup>4</sup> Edgren, J. et.al. (2005), *Quality handbook, performance indicators for library activities*, The Swedish Library Association’s Special Interest Group for Quality Management and Statistics, available at: [http://www.biblioteksforeningen.org/organisation/dokument/pdf/quality\\_handbook.pdf](http://www.biblioteksforeningen.org/organisation/dokument/pdf/quality_handbook.pdf)

<sup>5</sup> *Forslag til indikatorer for fag- og folkebibliotek* (2007), version 4.0, ABM-utvikling, Oslo, available at: <http://www.abm-utvikling.no/bibliotek/statistikk-for-bibliotek/indikatorer-for-fag-og-folkebibliotek>

Examples are:

- *BIX – The Library Index*<sup>6</sup>: The German project has separate indicator sets for public and academic libraries. The results are published yearly, with a ranking of libraries. Participation is voluntary and can vary.
- *The Benchmarking system of the Netherlands University Libraries*<sup>7</sup> that started in 1999 and is used continuously by all university libraries and the national library
- *HELMS (UK Higher Education Library Management Statistics)*<sup>8</sup> started in 1997/98. Six indicators are calculated for all members of SCOUNL (Society of College, National and University Libraries)

There will be special papers about two of these projects during this conference, the German BIX and the benchmarking of the Netherlands university libraries.

It is interesting to see that though the projects differ in the selection of indicators, yet they address the same topics, and most indicators are taken from existing handbooks or from ISO 11620, so that results become comparable between library groups and countries. Using such standardized methods does not only allow benchmarking, but will give the individual library more confidence in its measuring process and will add reliability to the data when reporting to funding institutions.

## THE BALANCED SCORECARD

Libraries can by now choose from a broad selection of performance indicators that have been tested and used by libraries and that are described in standards and handbooks. There have been diligent librarians, who worked through a whole handbook or standard, applying the full range of indicators in their libraries with interesting results – but only once. For regular evaluation and reporting, a library should rely on a selective list of indicators that are adapted to its purposes and problems. But how to choose the right indicators?

In the new edition of the ISO standard 11620 and also in the 2<sup>nd</sup> edition of the IFLA handbook 'Measuring Quality', the performance indicators are presented in the structure of the Balanced Scorecard (in the following called BSC). More and more libraries report about having adopted a BSC for their quality management; the most interesting example is the German benchmarking system BIX.

The BSC was originally developed for the commercial sector.<sup>9</sup> It measures whether the activities of an institution are aligned with its vision and goals. The

<sup>6</sup> BIX. Der Bibliotheksindex, available at: <http://www.bix-bibliotheksindex.de/>

<sup>7</sup> <http://www.ukb.nl/benchmark.htm>; see also Laeven, H. and Smit, A. (2003), A project to benchmark university libraries in The Netherlands, *Library Management* 24, 6/7, pp. 291-304

<sup>8</sup> *UK Higher Education Library Management Statistics 2003-2004* (2005), SCOUNL, London

<sup>9</sup> Kaplan, R.S. and Norton, D.P. (1996), *The Balanced Scorecard: Translating strategy into action*, Boston, Mass., Harvard Business School Press

concept ‘translates’ the planning perspective of an institution (its mission, strategic vision and goals) into a system of objectives and measures, following four ‘balanced’ perspectives:

- Finances
- Customers
- Internal processes
- Learning and growth.

By focusing not only on financial perspective, but also on the human issues (users, staff), the BSC helps to achieve a more comprehensive view of an institution. The system integrates financial and non-financial data, input and output data, the external perspective (funding institutions, users) and the internal perspective (processes, staff), goals and measures taken, causes and results.

Implementing Balanced Scorecards would typically follow this process:

1. Starting with the vision (mission), the strategy is developed: What are the main tasks and goals?
2. Within the four perspectives, ‘critical success factors’ are defined: What is most important for reaching the goals?
3. Based on the critical success factors, ‘key performance indicators’ are selected.

Example:

- The vision is: The library is the main meeting and communication centre in the community or university
- The perspective is: Customers (users).
- The goal is: To attract the population to the library premises.
- Critical success factors could be: opening times, adequate space and equipment for working in the library.
- Key performance indicators:
  - o Square meters of user area per 1,000 capita
  - o Number of workplaces per 1,000 capita
  - o Opening times compared to user demand

The key performance indicators for a library’s BSC should of course be related to the vision, goals and critical success factors. With the help of these indicators, it should be possible to measure the success in reaching the strategic goals. Ideally, there should also be a mutual influence between the indicators of different perspectives.

Examples:

- The indicator counting the amount of training per staff member measures whether staff are well trained and competent. It will probably influence indicators in the perspective ‘processes’ and ‘use’: Competent staff will produce better services and thus influence the amount of usage.

- Indicators showing high use of libraries will influence cost-efficiency in the perspective ‘finances’.

The BSC will function best with only a few well chosen indicators, generally not more than 20. That does not mean that a library (or a group of libraries) cannot use many other indicators beside the ‘key’ ones, if it is necessary in order to evaluate specified services. In a library with greatly differing tasks (e.g. acting both as public library and school library), several scorecards might be used for the different goals.

## **BSC FOR LIBRARIES**

The four perspectives of the original BSC are no must. They represent the normal view of commercial institutions. The strength of the BSC is that it is flexible and can be adapted to various institutions and organisations. There can be other perspectives than the original ones, e.g. a perspective named ‘cooperation’ or ‘partner management’.

A model with slightly changed perspectives, adapted to libraries, is used in the standard ISO 11620 and in the IFLA handbook. It places not the financial, but the user perspective foremost, as libraries do not strive for maximum gain, but for best service. The structure is:

1. Resources, access and infrastructure (What services does the library offer for use?)
2. Use (How are the services accepted?)
3. Efficiency (Are the services offered cost-effectively, are processes well organised?)
4. Potentials and development (Is the library able to learn and develop?)

Other models used in libraries have no separate perspective for ‘resources’, but two perspectives for finances and internal processes<sup>10</sup>:

1. User perspective (customer service)
2. Internal process perspective
3. Financial perspective
4. Learning and growth

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<sup>10</sup> University of Virginia Library, *Balanced scorecard at UVa Library*, available at: <http://www.lib.virginia.edu/bsc/index.html>; Library Services at the University of Hull, *Balanced scorecard for library services*, available at: [http://www.hull.ac.uk/lib/using\\_our\\_libraries/performance/balanced\\_scorecard/index.html](http://www.hull.ac.uk/lib/using_our_libraries/performance/balanced_scorecard/index.html)

It does perhaps not matter so very much whether processes are merged with finances, or whether resources and use are seen as separate issues. The main point for the 4 (or 5) perspectives is, that they must indeed cover all points of view, and their main advantage is, that they help to get a 'balanced' picture of the institution, where financial, organisational and user-oriented issues are all represented.

The most interesting perspective is certainly the fourth one, whether called 'learning and growth', or 'potentials and development'. Everybody would probably think of the financial and the customer view, but the small number of performance indicators that library projects have as yet found for the development perspective shows, that this was actually quite a new idea for libraries. And yet it seems to be the most important perspective in times of constant change. It looks to the intangible assets of an organisation, especially on internal skills and capabilities that are necessary for development. Effective information management would be counted here, and the overall climate in an organisation.

Libraries have as yet found only one indicator in this perspective on which all agree: The time spent on staff training. Other indicators measure for instance the library's engagement in new electronic services or its success in gaining additional resources for development. More indicators will follow.

The main criticism on the BSC seems to be that it is too simple and not even necessary. Every organisation has to define its vision and goals anyway, so why could they not add adequate performance indicators?

The advantage of using a BSC is that all important perspectives for quality are considered, that each perspective with its goals is evaluated by adequate performance indicators, and that those indicators are related in a systematic way. The BSC is an instrument for an integrated view of the institution's quality and for continuous assessment of how far targets have been reached.

## **BSC FOR THE NEW GLOBAL STATISTICS?**

The new statistics that are presented at this conference 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 socio-demographic data collected by UNESCO. 76 indicators were calculated with the existing data during the project, of which 23 were defined as core indicators.

Could such indicators, assessing library quality on a national scale, be presented in the form of a BSC?

The following tables use the core indicators. Some of the other indicators have been added for filling up the perspectives (in italics).

**PUBLIC LIBRARIES**

<b>Resources</b>	<ol style="list-style-type: none"> <li>1. Average number of public libraries per 1,000 inhabitants</li> <li>2. Weighted average opening hours</li> <li>3. Percentage of libraries offering an internet access for users</li> <li>4. Percentage of libraries offering websites</li> <li>5. Average number of volumes in public libraries per 1,000 inhabitants</li> <li>6. Average number of volumes per 1,000 literate inhabitants</li> <li>7. Average number of employees in public libraries</li> </ol>
<b>Usage</b>	<ol style="list-style-type: none"> <li>1. Number of registered users per 1,000 inhabitants</li> <li>2. Number of registered users per 1,000 literate inhabitants</li> <li>3. Average number of loans per 1000 inhabitants</li> <li>4. Average number of loans per 1,000 literate inhabitants</li> <li>5. Number of visits per 1,000 inhabitants</li> <li>6. Number of visits per 1,000 literate inhabitants</li> </ol>
<b>Finances</b>	<ol style="list-style-type: none"> <li>1. Expenditure on literature and information per capita</li> <li>2. <i>Ratio of expenditure on literature and information to staff costs</i></li> <li>3. <i>Cost per visit</i></li> <li>4. <i>Cost per registered user</i></li> </ol>
<b>Learning and development</b>	-----

**ACADEMIC LIBRARIES**

<b>Resources</b>	<ol style="list-style-type: none"> <li>1. Weighted average opening hours</li> <li>2. Average number of volumes in libraries per student</li> <li>3. <i>Average number of workplaces per 1,000 students</i></li> <li>4. <i>Average number of electronic serials (subscriptions)</i></li> <li>5. Average number of employees in libraries</li> </ol>
<b>Usage</b>	<ol style="list-style-type: none"> <li>1. Number of registered users as a percentage of number of students</li> <li>2. Average number of loans per student</li> <li>3. Number of visits per student</li> <li>4. <i>Number of attendances at training sessions per student</i></li> <li>5. <i>Average number of content units downloaded per registered user</i></li> </ol>
<b>Finances</b>	<ol style="list-style-type: none"> <li>1. Expenditure on literature and information per student</li> <li>2. <i>Ratio of expenditure on literature and information to staff costs</i></li> <li>3. <i>Cost per visit</i></li> <li>4. <i>Cost per registered user</i></li> </ol>
<b>Learning and development</b>	-----

The tables show that the last perspective, measuring the libraries' potentials for learning and development, cannot be filled with indicators that are calculated with the new statistics.

But 'learning and development' could be replaced by a new perspective 'impact and outcome', meaning the benefit of libraries for the population. This perspective can be seen as crucial in an international overview of libraries and could, even now, be filled up with performance indicators in the sector of public libraries: 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.

Examples:

- Average number of volumes per 1,000 literate inhabitants
- Number of registered users per 1,000 literate inhabitants
- Average number of loans per 1,000 literate inhabitants
- Number of visits per 1,000 literate inhabitants

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. But it would be problematic to identify similar indicators for academic libraries within the new statistics.

# **CURRENT TRENDS IN THE COLLECTION AND USE OF STATISTICS IN ACADEMIC AND PUBLIC LIBRARIES IN AFRICA**

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## **ABSTRACT**

*This paper reports on the results of survey conducted to determine the current trends in the collection and reporting of library statistics in academic and public libraries in the Africa region. The literature shows that the present state of statistical data collection in many African university and public libraries is still backward and there are no uniform standards being followed in collection and reporting of statistics. The survey was conducted in July 2008 and shows that libraries use both manual and some automated systems to collect and compile library statistics. The survey also showed the need for African academic and public libraries to agree on a set of standards for the collection of statistics. The paper recommends that the IFLA Africa Section together with IFLA Section on Statistics and Evaluation, UNESCO, the Association of African Universities and national and university library organizations in Africa (SCNUL) should take a leading role building capacity of African libraries on the importance, collection and reporting of library statistics.*

## **INTRODUCTION**

Library statistics are a vital component for the management and promotion of all types of libraries in the world. In response to the IFLA Statistics and Evaluation Section's call for papers for the Library Statistics for the 21<sup>st</sup> Century World post IFLA Conference held in Montreal, 18-19 the August, 2008, this paper reports on the situation of library statistics in various regions of Africa. The paper focuses mainly on academic and public libraries. Africa as a vast continent has over the last decade been experiencing some notable economic developments although there are still many areas of marginalized development. The economic gains that some African countries are making should also be reflected in the provision of information services both in the public/community and education al/tertiary libraries. For any meaningful investment to be made in information services provision, there is need for a substantial body of statistical and economic data on existing library facilities and services to show where gaps exist and the current levels of expenditure, access to Internet/electronic resources, so that meaningful decisions can be made on how to invest in areas of greatest need.

The collection of library statistics remains one of the most challenging management areas in African academic and public libraries. There remains no easily available source of up to date statistical and economic data on libraries in Africa. The value of statistics is as an advocacy and lobby tool to illustrate to policy-makers, politicians and partners how libraries provide access to our cultural and scientific heritage; contribute to the development of knowledge economy; support the democratic process; help bridge the digital divide; support lifelong literacy; and represent good value for money (IFLA, 2003). It is in this spirit that several international organizations have attempted to coordinate the collection and reporting of library statistics in Africa in the past decades but without much success or continuity. The IFLA Section on Statistics and Evaluation for example aims to promote the compilation and use of statistics both in the successful management and operation of libraries and in the demonstration of the value of libraries outside the profession. It is concerned with the definition, standardization, collection, analysis, interpretation, publication, and use of statistical data from all types of library and information service activity (ILFA Section on Statistics, 2000). The International Organization for Standardization (ISO) has a standard on Information and Documentation – International library statistics; ISO 2789: 2006 which specifies rules for the library and information service community on the collection and reporting of statistics:

- For the purposes of international reporting;
- To ensure conformity between countries for those statistical measures that are frequently used by library managers but do not qualify for international reporting; and
- To encourage good practice in the use of statistics for the management of library.

The International Network for Availability of Scientific Publications (INASP) organized and funded a Workshop on the Collection and Use of Library Statistics in university libraries which took place in Zimbabwe in 1997. An Annual Statistical Return was drafted and three libraries; the University of Addis Ababa, the University of Dar es Salaam and the University of Zimbabwe, took part in a pilot statistics collection project. Statistical data from these three libraries was published in a volume entitled: *Annual Library Statistics 1997/98*. There was potential for other libraries in the African region to learn from the experiences of these three libraries and INASP (1999) proposed that:

- The three libraries that have started collecting and compiling statistics must be encouraged to continue. Only then will trends become visible to monitor performance from year to year;
- Other university libraries were to be encouraged to take part in the collection and compilation of library statistics. The usefulness of the statistics was to in-

crease if more returns are received and data incorporated in the tables that were to be disseminated to more institutions globally;

- It was necessary for all libraries to put management processes in place, so as to ensure that the required statistics are collected, cumulated and produced at the end of each year; and
- It was also necessary to identify an organization, within Africa which will undertake:
  - o The maintenance and updating of the annual statistical return and its distribution to all university libraries in Africa; and
  - o The receipt of completed returns, the processing and checking of data, and the publication and distribution of the cumulative volume of annual library statistics.

The Association of African Universities (AAU) based in Ghana promised to continue the work of INASP, but ever since 1999, no other work has been done on the INASP initiative.

Another initiative on library statistics in African university libraries was launched by The International African Institute which published three volumes on: *University Libraries in Africa: a review of their current state and future potential*. The volumes were made up of case studies which include a range of statistical data including:

- Library collection sizes;
- Library staff;
- Expenditure interlibrary loans;
- Donor support; and
- Library use.

A number of African libraries are featured in the *Global Library Statistics 1990–2000* compiled by IFLA using data from UNESCO and Libecon (2003). The Global library statistics covered areas of:

- Library servicing the public;
- Library collections;
- New media;
- Usage and users;
- Library staffing; and
- Library expenditure.

The data from *Global Library Statistics* covers data from several African countries in all the regions (Benin, Burkina Faso, Egypt, Equatorial Guinea, Gambia, Kenya, Malawi, Nigeria, Reunion, Senegal, Togo, Tunisia and Uganda). However the more recent work of Libecon does not include any further statistics from libraries in the African region.

Lately, INASP has been involved in the provision of electronic services in various countries in Africa through its Programme for the Enhancement of Research Information (PERI). As a result of this initiative many African university libraries have access to various electronic databases and e-journals. INASP has initiated the monitoring and evaluation of the use of electronic databases (e-journals) in African university libraries. There is a book of case studies on monitoring and evaluation of electronic resources due for publication later this year.

The monitoring of e-resources use is critical for their continued and sustained success (Kiondo, 2005). According to Kiondo (2005) many university libraries in Africa however do not have software to monitor usage of e-resources. The University of Dar es Salaam (UDSM) for example relies on data collected through the following techniques:

- a) Suppliers' data: usage statistics of electronic resources subscribed through PERI programme is provided by suppliers.
- b) Library user statistics: usage data is collected from e-resource service points within the library. Users are required to register and indicate which e-resources they intend to use. Information collected includes name, status, year of study, faculty/department, title of e-resource, etc.
- c) User queries: librarians monitor and analyze requests and questions from users on specific e-resources.
- d) User surveys: the Library conducts periodic user surveys to gather key information about resources and services.

Initially conducted to address a concern of stakeholders on the apparent limited use of e-resources at UDSM, surveys were conducted in 2004 and 2005. They first examined the extent of e-resource use and factors that might influence use. The findings were instrumental in intensifying marketing of e-resources and implementing an information literacy programme. The second survey also investigated whether increased user access to e-resources has had an impact on the teaching and learning processes of the university. The techniques used in the survey included self-administered questionnaires and face-to-face interviews with selected key users to get in-depth insights into patterns of use and factors that might hinder or facilitate use of e-resources. Additionally, group discussions and workshops were held, in which stakeholders provided further input on the way forward (Kiondo, 2005).

National libraries have seen the need of getting consensus on performance indicators for assessing the quality of their services and several groups within IFLA section of National Libraries and CENL (Foundation Conference of European National Librarians) (Poll, 2008). The collection of statistics in public libraries in Africa has not been well documented or supported in the past. De Jager and Nassimbeni (2005) report on the efforts in South Africa to standardize the collection of statistics in public libraries. With funding from the Carnegie Corporation of New York, a Working Group on Public Library Statistics (WGPLS) was established by

the Libraries Working Group to facilitate the drafting of a simple form for regular collection of statistics from public libraries so that the envisioned three databases could be kept up to date through:

- a) A library directory containing identification and descriptive data about libraries;
- b) A demographic database containing relevant demographic information; and
- c) A geographic database containing geographical information such as municipal boundaries and location data for the libraries.

As a result of the above efforts, the National Library of South Africa started to distribute the statistics collection form to public libraries throughout South Africa and it was hoped that this could be the beginning of building a culture of assessment in South African public libraries. Elsewhere in Africa, there is also need to build capacity so that national and community libraries start to account for various activities and use the assessment of service provision to argue for more funds from governments and donors so that more people have access to library facilities.

## **RESEARCH OBJECTIVES**

The objectives of the survey on the collection of and use of library statistics in African academic and public libraries were therefore to determine:

- The type of statistics collected in African academic and public libraries;
- The methods used to collect the statistics;
- The types of information technology tools used in the collection of statistics; and
- The use of the statistics collected.

## **RESEARCH METHODOLOGY**

A descriptive research approach was applied in order to collect data from academic, national and public libraries throughout Africa. Data was collected through a self-administered questionnaire emailed to respondents, containing structured questions with a combination of structured (closed) and unstructured (open-ended) responses. The first part of the questionnaire focused on whether or not the libraries collect library statistics. The second part of the questionnaire aimed at obtaining information regarding the type of library statistics collected, while the third part concentrated on the methods used for collecting library statistics. In order to gain a picture of the current trends regarding library statistical activities on the continent, we selected 5 countries in the four regions in Africa i.e. West, East, South and North Africa. In each of the countries selected, two institutions (an academic library and a public library were selected).

Data collection took place during July 2008. The Statistical Package for Social Sciences (SPSS) was used to analyze the data. Frequencies were calculated for categorical variables and, where applicable, the results were reported in terms of demographical information.

## **RESULTS OF THE SURVEY**

### **Response rate and respondents**

When respondents understand the purpose of the survey and the significance of their responses, they are more likely to participate. A cover letter was included with the questionnaire clearly stated the purpose of the survey and the importance of participation by respondents. One hundred and thirty two (132) questionnaires were emailed throughout Africa. Twenty eight (28) emails were returned as undeliverable. Altogether, 18 completed questionnaires were returned by 4 August 2008. In other words, there was an overall response rate of 17.3%. The profile of the number of libraries who participated in this study is reflected in Table 1 below. The table also indicates the percentage of academic, national and public libraries participating in this survey.

Table 1: Number of Libraries Participating in this Survey

Country	Academic libraries	National libraries	Public libraries
Cameroon	1		
Egypt	1		
Ghana	1		
Namibia	2	1	
Nigeria	1		
South Africa	7		2
Tanzania	1		
<b>TOTAL</b>	<b>15</b>	<b>1</b>	<b>2</b>

From Table 1, it is evident that the majority of respondents (81%) were academic libraries.

### **The collection of library statistics**

All 18 libraries participating in this survey indicated that they collect library statistics.

The reasons for collecting library statistics are reflected in Table 2 below.

Table 2: Reasons for Collecting Library Statistics

Reason	Percentage (%)
To monitor performance	92.3%
To assist in policy formation	76.9%
To market library services	53.8%
To help in obtaining more funding	69.2%
To analyse and predict trends	76.9%
To assist in management and decision-making processes	84.6%
Other reasons: increasing readership, annual reports of the organization, quality control (benchmarking), monitoring turn-away stats for databases which influence decisions to increase user licences.	30.8%

The two most important reasons for collecting library statistics are shown in Table 2 above. Ninety two percent (92.3%) of all libraries indicated that they collect library statistics to monitor performance, while 84.6% said that collecting library statistics assists them in management and decision-making processes and 76.9% in policy formulation and to analyze trends. A further 69.2% indicated that statistics were collected to help in obtaining more funding for the libraries.

### **The types of library statistics collected**

Table 3 below reflects the different types of library statistics collected, as well as the percentage per type collected by the respondents.

Table 3: Types of Library Statistics Collected

Type	Frequency
Number of loans	85.7%
Use of electronic databases	71.4%
Number of e-resources in the library	57.1%
Number of downloads per person	42.9%
Number of library visitors	64.3%
Weekly opening hours	35.7%
Number of reference questions	64.3%
Registered number of library users	57.1%
Library staff	71.4%
Size of library collections	64.3%
Size of library budget	64.3%
Library expenditure	71.4%
Library use training	64.3%
Library acquisitions (i.e. requests, ordering, receipt)	85.7%
Library materials processing (i.e. cataloguing and classification)	78.6%
Library seating capacity	50%
Library shelving	35.7%
Events in the library	42.9%
Other: number of pages updated on the library's website, number of hits per page on the library's website, ETDs added to the information resources, ILL fill rates, gate counts, use of the Internet Café, use of periodicals, in-house use of information resources.	23.1%

Table 4: Frequency of Collection Per Type of Library Statistics

Type	Daily	Weekly	Monthly	Quarterly	Annually
Number of loans	41.7%		33.3%	16.7%	8.3%
Use of electronic databases	20%		40%	30%	10%
Number of e-resources in the library	25%		25%	25%	25%
Number of downloads per person	50%		33.3%		16.7%
Number of library visitors	55.6%	11.1%	22.2%	11.1%	
Weekly opening hours	20%		60%		20%
Number of reference questions	22.2%		44.5%	22.2%	11.1%
Registered number of library users	12.5%		25%	25%	37.5%
Library staff	10%		20%	40%	30%
Size of library collections	11.1%		11.1%	44.5%	33.3%
Size of library budget	11.1%		11.1%	33.3%	44.5%
Library expenditure	20%		50%	20%	10%
Library use training	11.1%		55.6%	22.2%	11.1%
Library acquisitions (i.e. requests, ordering, receipt)	33.3%		33.3%	16.7%	16.7%
Library materials processing (i.e. cataloguing and classification)	27.3%		45.4%	18.2%	9.1%
Library seating capacity	14.3%		42.8%	14.3%	28.6%
Library shelving	20%		20%	20%	40%
Events in the library	16.7%	16.7%	16.7%	16.7%	33.2%
Other	50%		25%	25%	

The main types of statistics collected by libraries are the number of loans (85.7%), library acquisitions (85.7%), library materials processing (78.6%), use of electronic databases (71.4%), number of library staff (71.4%) and library expenditure (71.4%).

Table 4 provides information about how frequently libraries collect the different types of statistics.

### Frequency of compilation of statistical reports

Figure 1 indicates that 92.9% of all respondents compiled a statistical report annually, while 50% also compiled statistical reports on a monthly and quarterly basis.

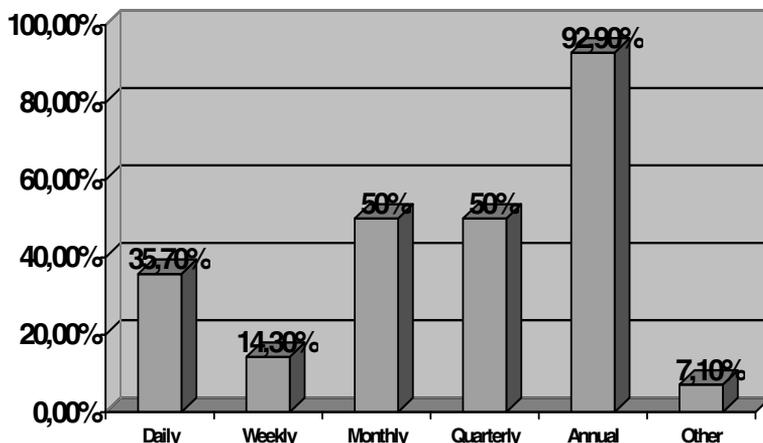


Figure 1: Compilation of statistical reports

### Publications in which library statistics are included

The respondents were required to indicate the type of publications in which collected library statistics are published. The libraries indicated that they publish statistics in a wide range of publications and include the following:

- Annual reports / municipal annual reports
- Brochures
- Departmental reports
- Faculty board meetings
- Library Committee quarterly and annual reports
- Library director's reports
- Monthly reports
- Newsletters / Library newsletters
- Quarterly reports

- Research reports of the university (Annual)
- Self-evaluation reports
- Stats-at-a-glance that appear on the intranet
- University senate reports

### **Responsibility for the collection, compilation and analysis of statistics**

The respondents were required to indicate who collects, compiles and analyses library statistics from different sections of the library. The sections responsible are shown in the table below (Table 5). A high percentage of respondents (92.9%) said that each responsible section or department collects, compiles and analyses their own statistics.

Table 5: Responsibility For Different Library Sections' Statistics

Responsibility	Percentage (%)
Each section or department	92.9%
IT section	35.7%
Management	50%
Other: person/s responsible for management information and quality assurance	7.1%

The respondents were also required to indicate who collects, compiles and analyses library statistics for the whole library. The sections responsible are shown in the table below (Table 6). Just over seventy-one percent of all respondents (71.4%) indicated management as being responsible for the collection, compilation and analysis of statistics for the whole library.

Table 6: Responsibility for Statistics of the Whole Library

Responsibility	Percentage (%)
Each section or department	57.1%
IT section	14.3%
Management	71.4%
Other: person/s responsible for management information and quality assurance	7.1%

### **Manual and/or electronic collection of library statistics**

Table 7 below provides information about respondents' feedback with regard to the manual and/or electronic collection of library statistics. It appears from this table that most respondents (78.6%) are collecting statistics both manually and electronically.

Table 7: Manual and/or Electronic Collection of Statistics

Collection method	Percentage (%)
Only manual	14.3%
Only electronic	7.1%
Use manual and electronic methods, depending on the type of statistics collected	78.6%

Manual collection is usually done on a daily basis by physically counting items/users. These statistics are then forwarded to the person responsible for the library management information system.

Table 8 below reflects the specific types of statistics, as well as the method of collection and type of software used, where applicable.

### **Comments from respondents**

The last part of the survey required that respondents comment on their overall impressions about the collection and use of statistics in African academic and public libraries. The comments include the following:

- a) 'As the library is catering for the illiterate community and the disabled, we are keeping the statistics of both categories so that we can be able to cater for their needs.'
- b) 'The collection of statistics remains a difficult area because each library collects them in a different way. To compile comparative data, it is important that libraries agree to collect a core set of data the same way. CHELSA (Council for Higher Education Libraries in South Africa) has gone some way to provide guidelines to do this but it has not been implemented. The challenge is who will maintain a database of comparative data – there are sustainability and affordability issues to be addressed.'
- c) 'The use of statistics in Namibia is still mainly manually based and uncoordinated. It would be ideal to have a national statistics collection method – ideally coordinated by the National Library, which would be published for wider dissemination. Statistics play a very important role in lobbying and in inform-

ing library management on collection development and addressing areas of weakness. In terms of the National Library, efforts to improve the collection of statistics are being considered, as the present areas of statistics collection need to be widened.'

- d) 'Collection of statistics has helped our library achieve the following in the past 5 years:
- o A new library building to accommodate the ever increasing number of students. The seating capacity increased from 100 to 952.
  - o An increase in the library book vote, as we aim to have a 3 books/student ratio. The current book/student ratio is 1:7.
  - o Statistics will help us obtain a separate post-graduate vote, to enable us to purchase the graduate programmes collection, which is adequate to support the programmes.
  - o The statistics will assist the library in achieving a student/computer ratio of 5:1. Currently, the whole institution has a 7:1 ratio.'

From the above comments, it is clear that, there is need for clear standards in Africa regarding the collection and use of library statistics. Ministries responsible for national libraries and higher education libraries need to address this issue urgently as it will help in the development of these facilities in the long run. Without a reliable body of library statistics from Africa, it will be very difficult to measure the progress in implementing social and economic development programmes especially the Millennium Development Goals (MDGs) and the achievement of the goals and objectives of the African Information Society Initiative (AISII).

## **RECOMMENDATIONS AND CONCLUSION**

Although the response rate was not very impressive, the survey was able to establish some positive aspects from the respondents that include the following:

- The collection of library statistics is an essential foundation for quality library services;
- This survey provides a current picture of African libraries with regard to the trends in collection and use of statistics;
- It is important for addressing weaknesses in African library and information services; and
- It provides comparative library data.

The survey also registered some areas that need improvement and these are:

- There is no standard on the type of library statistics to be collected;
- There is no shared position on how data must be collected, analyzed, presented and applied;

Table 8: Types Of Statistics, Collection Methods And Software

Type of activity	Manual collection	Electronic collection	Type of software
Number of loans	9.1%	90.9%	ADLIB Aleph Innopac Report Module ITS Millennium PALS
Electronic databases		100%	CDS ISIS ITS
E-resources	25%	75%	Aleph Done by vendors (Tanzania) Excel & Counter compliant software Millennium TDNet
Downloads	33.3%	66.7%	
Library visitors	50%	50%	ICAM CSGold
Questions/Reference queries	71.4%	28.6%	Aleph DotNet program QuestionPoint
Library users	33.3%	66.7%	Innopac Report Module ITS Millennium
Library staff	83.3%	16.7%	Oracle
Size of collection(s)	16.7%	83.3%	Aleph Millennium
Library budget	25%	75%	ITS System PROMIS
Library expenditure	20%	80%	ITS Millennium Oracle Protea (University Management Information System)

Type of activity	Manual collection	Electronic collection	Type of software
User training	88.9%	11.1%	Excel
Acquisitions	18.2%	81.8%	Aleph Excel Innopac Report Module ITS Millennium
Library materials processing (i.e., cataloguing and classification)	27.3%	90.9%	Aleph Innopac Report Module ITS Millennium OCLC Prolib
Library seating capacity	100%		
Library shelving	100%		
Events in the library	100%		
Periodicals and/or serials use	50%	50%	Aleph Millennium
Interlibrary loans	50%	50%	Aleph ReQuest Module
Literature searches	100%		
Book requests	100%		
Photocopies	100%		
Internet use	100%		
Opening hours	100%		
Gate count	50%	50%	3M
Institutional repository	50%	50%	ePrints
Donations	100%		Aleph
Multimedia	50%	50%	Aleph

- There is a wide gap in the type and frequency of statistics between technologically advanced libraries and those less fortunate; and
- There is no national or African database of comparative library statistics available.

The future of collection and compilation of library statistics on a continental scale depends on many issues that need to be addressed by the libraries themselves and a number of international organizations working towards the development of libraries in Africa. It is recommended that:

- The IFLA Africa Section should work closely with the Statistics and Evaluation Section to build capacity among African libraries to collect library statistics. Such efforts could include the running of workshops and coming up with agreed standards for the various types of libraries.
- The African Association of African Universities and the Standing Conference of African National University Libraries of Eastern, Central and Southern Africa (SCANUL-ECS) and the Standing Conference of African University Libraries, Western Area (SCAULWA) should all play leading roles in guiding university and public libraries on collection and reporting of statistics; and
- A regional workshop on capacity building should be held soon on issues of statistics usage and management and UNESCO, IFLA and ISO provide the technical expertise.

The collection of statistics in other areas in Africa seems to be done with a certain degree of success. The Demographic and Health Surveys (DHS) carried out throughout Africa by ORC Macro in conjunction with national bureau of statistics and health ministries have over the years produced a reliable source of data for both planning and implementing of social and economic programmes. This experience of DHS surveys should be used by the library community to develop standards on the collection and reporting of library statistics. UNESCO with its experience in collecting education statistics globally could also help in conjunction with International Standards Organization (ISO) to implement the ISO 2789:2006 (which specifies rules for library and information services community on the collection and reporting of statistics)

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# LIMITS OF THE ‘GLOBAL STATISTICS’ MODEL AND SOME EXAMPLES OF HOW RESULTS ARE USED<sup>1</sup>

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## ABSTRACT

*This presentation will begin with a short history of UNESCO’s survey of libraries up to the implementation of the Pilot Survey on Library Statistics in the Latin American context. The ‘Global Statistics’ model will then be briefly situated within a literature review of the assessment of libraries, focusing on the reasons behind the assessment and the criteria used to draw up indicators. In the course of presenting indicators that have been retained, a quick diversion will be made into literacy indicators at the library level. Some of the project’s results will be unveiled in relation to the link between digital information and libraries, as well as literacy rates. The overlapping of indicators around loans data will also be examined. The final portion of the presentation will report on the impact of the project on the ISO 2789 standard and examine the limits of the ‘Global Statistics’ model. The presentation will close with a look at the evolution of a statistical culture within libraries.*

## PUTTING INTO CONTEXT

### Short review of UNESCO surveys on libraries

The first international publication on library statistics realized by UNESCO goes back to 1952 while the last survey goes back to 2000. Therefore a little less than thirty surveys or so have been conducted (22 can be located at the documentation center of the UNESCO Institute for Statistics – UIS).

Right from the very beginning, problems pertaining to the existence of data library and their comparability are important. Those surveys prominently displayed differences between countries with methods for collecting data, definition of variables or measure units, methods of calculation and library classification. This lack of uniformity gave rise to the formation in 1964 of a working group made up of members from IFLA and ISO/TC 46 Committee. Their works on the standardization of international library statistics would lead, in 1966, to some changes in the UNESCO questionnaire of 1964. Finally, the quest for standardization resulted in

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<sup>1</sup> Note: The content and data of this conference paper are not those of UNESCO. They are the result of an academic project achieved at EBSI, University of Montreal as a part of its master program in information sciences – C.L.

the adoption of a Recommendation concerning the International Standardization of Library Statistics on 17th of November 1970 during the 16th session of the General Conference of UNESCO (UNESCO, 1995). From that moment, 19 surveys have been conducted.

As we will see later, efforts of standardization in the library sector continued in the 21st century. Along this standardization movement, UNESCO stopped collecting library statistics, around the same period the Institute for Statistics was founded (UIS) in 1999. The last statistics go back to the year 2000 in the case of academic libraries and 1999 for public and national libraries. Looking up the last statistical reports shows sparse tables (UIS, s.d.). It reveals a poor response rate causing the gathering of data to be difficult. Moreover, these statistics can hardly be qualified as 'international' when data come only from European or American countries. Also, of 6 categories defined in the Recommendation of 1970, only 3 had been documented over time: academic library, public library and national library. The Recommendation of 1970 included some elements too specific and didn't match well with the needs expressed in various national policies related to libraries. It doesn't bring out the part played by libraries in information societies. Moreover, the World Summit on the Information Society 2005, Tunis, highlighted the lack of robust data on libraries. This broad context explains the need to renew the international program of library statistics (IFLA 2006a, 2006b).

However, there is no choice but to accept that the concern of knowing the state of libraries, by the mean of common statistical indicators, remains in the community. Minutes of the Statistics and Evaluation Section's Standing Committee (IFLA, 2004, 2005) show the need for reliable and relevant data in order to promote libraries and the need for collaboration between ISO, IFLA and UNESCO to organize a program of international library statistics. The three bodies agreed not to advise any modification to the Recommendation of 1970 but rather to work out a model selecting basic statistics: the Global Statistics. In summer 2007 that the program of international library statistics took concrete shape in the form of a test questionnaire sent to 41 countries of South America and Caribbean.

### **Context of student involvement**

The working group stemming from the partnership between IFLA, ISO and UNESCO wished the participation of Montreal's schools of library science. The contribution of EBSI consists of one student, the author of this paper, supervised by Mrs Pierrette Bergeron, professor at EBSI. Within the framework of a 6 North American credits project, the student matched her research questions to the pilot project of Global Statistics. The student therefore collaborated with UNESCO by examining the quality of data, by constructing indicators, by providing an analysis and an interpretation of the results while identifying their limits. The work was also done in collaboration with representatives of the Statistics and Evaluation Sec-

tion's Standing Committee of IFLA and of ISO (Michael Heaney, Roswitha Poll and Pierre Meunier).

### **Signification of ' global ' statistics**

In the 'Global Statistics' model, the 'Global' has the goal to draw up some national statistical summary that is comparable from one country to another. Not for saying that country A has more libraries than the country B but to map the situation of libraries in the world according to several parameters. Putting these standpoints globally, i.e. matching indicators for several comparable countries, can bring out trends, gaps, questioning that could otherwise hardly be formulated rigorously. Key stakeholders of a given country, with their expertise and knowledge of the field, can afterwards exploit the results from the statistical summaries and promote targeted policy development related to libraries.

To achieve this vision of global statistics, the development of standards is crucial. It is interesting to note how the standardization has developed since the adoption of the Recommendation of 1970 by UNESCO. For instance, in 1974, the standard ISO2789 – International Library Statistics was published. It has had three revisions, in 1991, 2001 and then in 2006. The usefulness of this standard is not only to facilitate comparison between libraries but also between libraries of different countries (ISO, 2005) by defining statistics that could be collected and with which methodology (how to count or how to obtain the desired data). A new group of experts has been mandated in 2008 to develop its content in order to include statistical data related to library construction (Statistical data for library buildings). In addition to ISO 2789 standard, the standard ISO 11620 – Information and documentation – Library performance indicators was developed in 1998. It was amended in 2003 and a second edition will appear presently (ISO, 2006). This standard offers a set of accepted performance indicators that can support any library trying to put in place an evaluation process and that can guide in possible crossings of indicators. The update of this standard revises at the same time the technical report ISO/TR 20983:2003 – Information and documentation – Performance indicators for electronic library services by integrating its content in the new standard. It is worth noticing that a group of experts was created in 2007 to suggest a new standard on performance measures for national libraries (Quality measures for National Libraries). All those standardization efforts of ISO favor the convergence of approaches or evaluation models on documentary services' quality and performance from various horizons (academic, high school, public, specialized or national). Moreover, since the adoption of standards implies the approbation of national representative and the advice of experts from several countries, the convergence has an international nature. Because the 'Global Statistics' model is based on ISO 2789 and ISO 11620 standards, the model therefore has an international nature: Global Statistics.

Table 1 Classification of motivations for evaluation

<b>EXTERNAL</b>				
1 – Political		2 – Economic		3 – Social
Pressure Transparence		Accountability		Imputability towards users
<b>INTERNAL</b>				
1 – Markers	2 – Relation	3 – Diagnostic	4 – Équilibre	5 – Strategy
Element for comparison	Good for the prestige of the library	Documenting problems	Quality management	Support decision making
Reference points in a period of constraints, of adaptation	Tool for promotion	Identifying the variety of user's needs	Internal control mechanism	Support planning
Reference points for judging an amelioration	Management of the relation with parties			
	Involvement of users in the management Arguments for motivating the team			

## **CONSTRUCTION OF INDICATORS**

### **Positioning of Global Statistics in view of motivations for evaluation**

Given the context in which the student project was done, the literature review was not exhaustive but targeted on selected authors such as Brophy (2006), Sutter (2002, 2006), Abbott (1994), Poll and te Boekhorst (2007), Griffiths and King (1993) and Crawford (1996). Table 1 is a synthesis of the main motivations for evaluation mentioned by these authors. Motivations have been grouped according to their origin: external to the organization or internal to it. External motivations have been divided according to their nature: political, economic or social. Internal motivations have been grouped into five categories:

- Motivations demanding markers, reference points to answer the object of motivation (ex : benchmarking)
- Motivations implying the management of a relation (ex: customer relation, sponsors, suppliers, etc.)
- Motivations related to the establishment of a diagnostic (ex: identifying a problem)

- Motivations related to the pursuit of an equilibrium (ex: maintaining the speed service without quality loss)
- Strategic motivations (ex: conception of a development plan)

Even if the ‘Global Statistics’ model lies within an international framework, its fundamental motivations are in line with internal motivations to the organization, the organization being here the country. Thus, a country will use the Global Statistics for benchmarking with countries experiencing similar issues or having similar particularities or embodying the state to reach (internal motivation 1 – Markers). A second motivation enhancing the interest for the Global Statistics at the national or international level lies in the tool provided by the statistical summaries. This tool can support the planning of library development by the conception of policies for example (internal motivation 5 – Strategy).

### **Examples of indicators constructed**

Statistical data in the Global Statistics amount to 22 items. Table 2 draws a parallel between the Global Statistics collected by the pretest questionnaire and examples of associated indicators.

The working group’s meeting of January 2008 (Heaney, 2008) selected a little less than about fifteen core indicators for each type of libraries (see Table 3).

## **Library and Literacy**

### **Requirement to scope with the challenge of literacy**

One of the challenges of library evaluation is to measure their impact in society. Literacy is a social issue naturally linked with libraries. Among the requirements to take up the challenge of literacy, the summary of the *EFA Global Monitoring Report* (Burnett & al., 2005) mentioned the adoption of explicit policies on literacy which favor the setting up of rich literate environments because ‘les motivations à devenir et rester alphabète sont étroitement liées à la qualité des environnements alphabètes qu’on peut trouver chez soi, au travail et dans la société.’ (p. 27). Moreover, the setting up of these literate environments is tied to various policies such as linguistic policies, publishing policy and media policies but information access policies particularly hit libraries. Some basic statistics, such as the number of libraries or the number of volumes, can document if libraries of a particular country form a rich environment that support literacy. However, the ‘Global Statistics’ model doesn’t provide a lot of information about the territorial distribution of libraries. The last question in the pretest questionnaire asks for a ranking of libraries according to the number of volumes. A geographical distribution based on that ranking can be made though the portrait could be distorted by representing only the distribution of bigger libraries. Since the response rate to that question or availability of data was not very good, this analysis was not done.

Table 2 Examples of indicators developed from the 'Global Statistics' model

Global Statistics	Example of indicators
Number of libraries	Average number of public libraries per 1000 inhabitants Average number of public libraries per 1000 literate inhabitants Average number of higher education institution libraries per 1000 students
Number of workplaces	Average number of workplaces in public libraries per 1000 inhabitants
Number of opening hours	Percentage of public libraries that have weekly opening hours over 40
Internet access	Percentage of public libraries offering an Internet access for users
Access to an online à catalogue	
Access to commercial electronic resources	
Access to web sites	
Number of volumes	Average number of volumes in public libraries per 1000 inhabitants
Number of eBooks	Number of items in collection (including volumes, eBooks, electronic serials, databases) per registered users in higher education institution libraries
Number of electronic serials	
Number of databases	
Number of units content download	Average number of units content download per registered user in public library
Number of registered users	Number of registered users in public libraries per 1000 literate inhabitants
Number of events	Average number of attendances in higher education institution libraries training sessions
Number of training sessions	
Annual attendances in training sessions	
Number of loans	Average number of loans per 1000 inhabitants in public libraries
	Average number of loans per 1000 literate inhabitants in public libraries
Number of visits	Number of visits in public libraries per 1000 inhabitants
Number of employees	Average number of employees in public libraries
Total operating expenditure	Percentage of literature and information expenditure in public libraries
Staff cost	
Literature and information expenditure	

Table 3 Core indicators selected by the working group ISO, IFLA and UIS

Public libraries	Higher education institution libraries
<ul style="list-style-type: none"> <li>• Average number of public libraries per 1000 inhabitants</li> <li>• Percentage of public libraries offering an internet access for users</li> <li>• Percentage of public libraries offering websites</li> <li>• Number of visits in public libraries per 1000 inhabitants</li> <li>• Number of visits in public libraries per 1000 literate inhabitants</li> <li>• Average number of volumes in public libraries per 1000 inhabitants</li> <li>• Average number of volumes in public libraries per 1000 literate inhabitants</li> <li>• Number of registered users per 1000 inhabitants in public libraries</li> <li>• Number of registered users per 1000 literate inhabitants in public libraries</li> <li>• Average number of loans per 1000 inhabitants in public libraries</li> <li>• Average number of loans per 1000 literate inhabitants in public libraries</li> <li>• Average number of employees in public libraries</li> <li>• Ratio of female to male employees in public libraries</li> <li>• Expenditure on literature and information per capita in public libraries</li> </ul>	<ul style="list-style-type: none"> <li>• Average number of volumes in higher education institution library per 1000 students of higher education</li> <li>• Number of visits in higher education institution libraries per students of higher education</li> <li>• Number of registered users in higher education libraries as a percentage of number of students</li> <li>• Average number of loans per student (higher education) in higher education institution libraries</li> <li>• Average number of employees in higher education institution libraries</li> <li>• Ratio of female to male employees in higher education institutions libraries</li> <li>• Expenditure on literature and information per student of higher education in higher education institution libraries</li> </ul>

Besides the setting up of literate environment, the *EFA Global Monitoring Report* (Burnett & al., 2005) puts forward two other points relating to the strategy for scoping with the literacy challenge. One is about the quality of education at school for all children. Quality of education is a particular issue for South American countries. The library can play a support role in the quest for education quality by hosting training sessions and activities. The last point of the strategy concerns learning programs adapted to youth and adults. Burnett et al. mentioned that ‘[l]a bibliothèque est un lieu idéal pour offrir des programmes d’alphabétisation aux familles, vu qu’elle dispose de matériels pour tous les groupes d’âge et niveaux de

lecture.' (p. 31). In order to measure if libraries have an impact on these levels, the 'Global Statistics' model should be more subtle regarding the nature of activities in libraries and the type of customers reached by these activities.

### **Example of indicators related to literacy**

The document of Zweizig (Zweizig, Wilcox Johnson, & Robbins, 1990) provides a set of indicators specific for the evaluation of a literacy program. He suggests measures related to the collection (ex: rotation rate of material related to literacy), to reference service (ex: percentage of demands related to literacy) and to activities (ex: number of hours of tutoring per student, percentage of students fulfilling a given level of the program)

It is already evident that those measures are too specific in comparison to what an international survey can extract. In order to measure hopefully the impact of libraries over literacy, we first need to make sure that countries have the capacity to provide basic data. Actually, if countries don't document their activities in general, the odds are they wouldn't do it either for a more specific level, for example literacy. So the use of international statistical summary for that purpose is quit unsure for the moment. The model can document the contribution of libraries to the creation of literate environment at the most. To go further, measure leads suggested previously for each point of the EFA strategy would make basic statistics to be collected by countries.

### **Construction Criteria met by the 'Global Statistics' Model**

We find several construction criteria for indicators in the literature. It matters to understand here that criteria are reference points to test the quality of selected indicators in a process of evaluation. Thus, the criteria are not the indicators. They are conceptual tools enabling the construction of indicators. Table 4 shows the distribution of criteria among a few authors and positions the 'Global Statistics' model regarding these criteria by identifying criteria that seem more critical for the model. Criteria that win unanimous support, and thus would be more crucial in the development of an indicator, are the informative character of the indicator, its reliability and must be achievable.

Besides, Sutter (2006) picks up, rather pertinently, practices to avoid while choosing indicators:

- Too many measures
- Isolated measures one from another
- Measures dominated by financial data
- Measures linked to the conduct of activities rather to strategic goals
- Measures not linked to the action plan
- Measures that don't reflect potential performance

With its 22 statistical measures, the 'Global Statistics' model is a sober model of evaluation. The 22 elements that composed it can be twinned as we saw in ta-

ble 2. Financial data consist in only one question over the all questionnaire, devised in 3 collected statistics for each type of library. Regarding strategic goals, the model enables the use of data that can support the promotion of libraries. However, we believe that measures based on the Global Statistics should be more clearly associated to strategic orientations or policies affecting libraries or in sectors in development such as training sessions. We believe that at the end of the present congress, the richness of all contributions should be used to improve the formulation of the model. The model should be formally enunciated in a way to recognize its strategic importance for the development of libraries in information societies.

Table 4 Distribution of construction criteria for indicators

Criteria	Abbott	Sutter	Brophy	Global Statistics
Specific		X	X	
<b>Informative</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Validity	X		X	X
<b>Reliability</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Achievable</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Faithfulness		X		
Comparability		X		X
Consolidated		X		X
Economic character		X		
Relevance	X		X	X
Causality			X	

## SOME RESULTS

The global response rate to the questionnaire was relatively good for a pilot project (61%). If we compare this rate with the historic series that was extracted, it seems there is a statistical culture development within the public library community. The poor response rate (especially exploitable responses) of academic libraries is surprising. We suspect a methodological failure in the chain of respondents: the academic milieu wouldn't successfully be reached by usual means. Consequently, the following results and analysis are only concerned with public libraries.

Table 5<sup>2</sup> Classification of countries according to DAI and percentage of public libraries offering an Internet access to users

DAI	Internet Access			
	70 to 100%	30 to 69%	0 to 29%	Not available
Not available	Montserrat Netherlands Antilles (?)	British Virgin Islands		
High access				
Upper access	Antigua and Barbuda Bahamas Chile (?) Saint Kitts and Nevis Trinidad and Tobago	Argentina (?) Costa Rica Dominica Jamaica Mexico (?)	Uruguay (?) Brazil	Saint Lucia
Medium access	Venezuela		Colombia El Salvador Guyana Suriname	Dominican Republic Peru Saint Vincent and the Grenadines
Low access			Honduras (?)	

### Digital information and libraries

From the answers of the respondents, the electronic collection is not much documented. Of 24 respondent countries, only one (Antigua and Barbuda) has an electronic collection sufficiently developed to produce an average value per library (but still in the order of the unit). Eleven respondent countries have data of negligible value and twelve had been unable to provide data. On the other hand, several countries have libraries offering electronic services, mainly Internet access to users. It is interesting to position this offer of electronic service according to their Digital Access Index (DAI)<sup>3</sup> classification (see Table 5). The reading of Table 5

<sup>2</sup> Countries providing partial data are indicated by ' ? '.

<sup>3</sup> This classification is based on a classification presented in the document produced by Partnership on Measuring ICT for Development (2005). For each country, it gives an idea of the development level of its technological infrastructure associated to ICT.

shows that few countries with an upper DAI have libraries with an offering of electronic services unbalanced (Argentina, Costa Rica, Dominica, Jamaica, Mexico, Brazil and Uruguay). The more critical gap appears for Uruguay and Brazil. It's worth mentioning that Mexico and Argentina provided partial data. Complete data could change this classification. One can also notice a similar gap for countries with a medium DAI and with a little offering of electronic services (Colombia, El Salvador, Guyana and Suriname). Almost the half of the countries (11/24) globally have libraries not offering electronic services in line with the national development level of technological infrastructures.

### **Literacy rate and library**

When we compare the number of libraries for 100,000 inhabitants with that of 100,000 literate inhabitants we observe that few countries approximately double their number of libraries (Mexico, Honduras, Jamaica, Costa Rica, Dominican Republic and Peru). Now, all literacy rates for those countries are over 80% (see Figure 1)<sup>4</sup> which lets think that on the whole, the population is in contact with literate individuals and consequently constitute a literate society. The question thus remains to know if the library networks of those countries are sufficiently developed in accordance with their outlying customers to the literate population. Also, in the case where literate populations are lower in absolute terms, it can let us think that libraries have less impact. It is necessary to complete that information with the knowledge of libraries' activities. Do libraries participate in literacy program? Are libraries present in less favored regions?

Figure 2 shows also the disparities between countries regarding the number of libraries per 100,000 literate inhabitants and their literacy rate. Taking into account the literacy rate, libraries seem more present in Bahamas, Dominican Republic, Jamaica and Mexico compared to other countries. However, in the case of Jamaica, it is worth noticing that Figure 3 shows that the intersect between the proportion of volumes for 100,000 inhabitants and the number of libraries for the same population seems problematical. This country offers a high number of libraries for its population comparatively to other countries but on the other hand offers proportionately fewer volumes. Here again, the field context is lacking to draw more affirmative conclusions. The crossing effect for these two indicators in other countries gives a logical result. For example, it is normal that a country having a high number of libraries has also proportionately a high number of volumes. It is also coherent that countries having a lower number of libraries have proportionately fewer volumes. The last possible case is that among countries having fewer libraries the volumes density is high. The question remains to know if the number of libraries and their number of volumes match in harmony the needs of territories.

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<sup>4</sup> In this and the following figures, indicators using a calculation with a total population or a literate adult population don't always have the same reference year. Thus, Costa Rica, British Virgin Islands and Dominican Republic have a reference year of 2005 for their total population while that of Saint Kitts and Nevis and Monserrat is 2006. The reference year for all literate adult population is 2001.

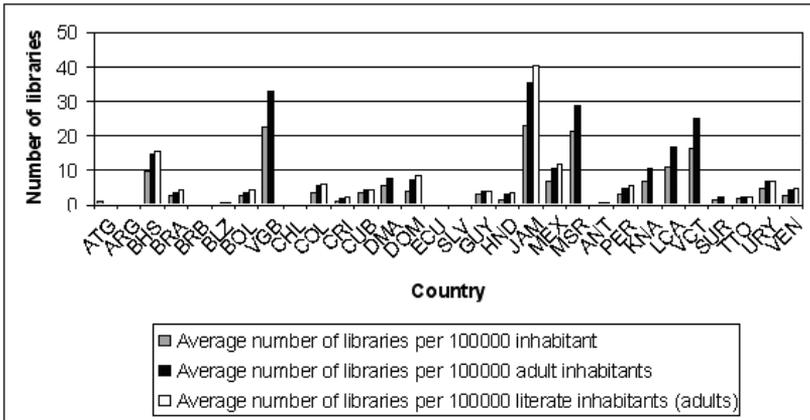


Figure 1

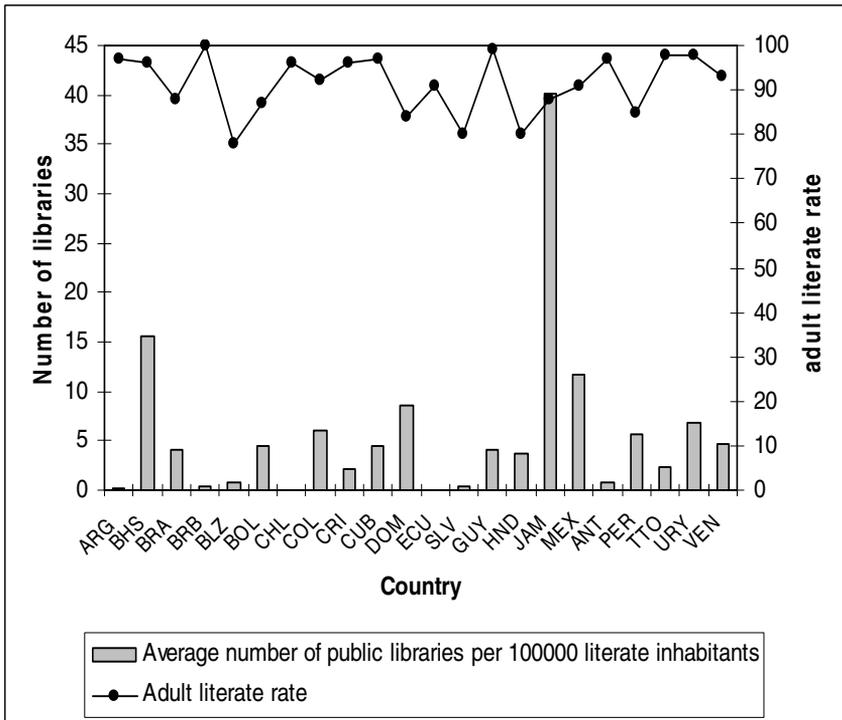


Figure 2

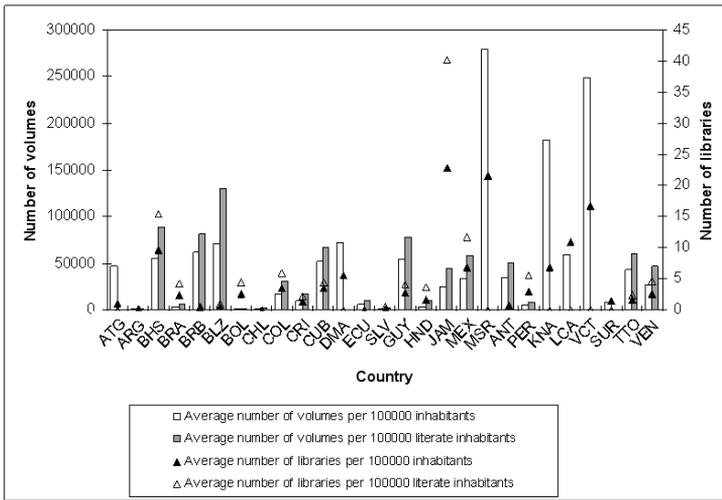


Figure 3

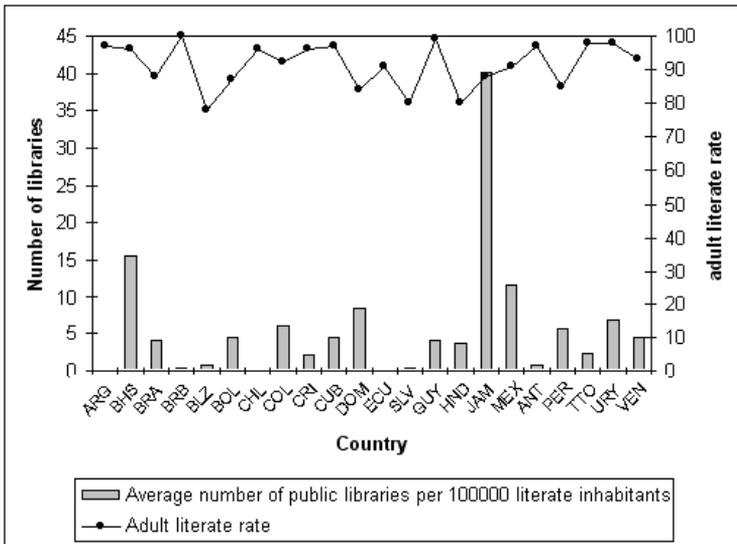


Figure 4

Figure 4 presents the average number of attendances in training sessions. To these data, the percentage of libraries offering opening hours over 40 had been added to target if training sessions with a large clientele in average were associated with extensive opening hours. Over the 5 countries offering strong attendances (Chile, Guyana, Saint-Vincent and the Grenadines, Suriname and Venezuela), 3 of them have 100% of their libraries with opening hours over 40%. In consequence, if li-

libraries wish to play a role in the matter of literacy, it would benefit them to open their doors and to offer activities over a wide allotted time period.

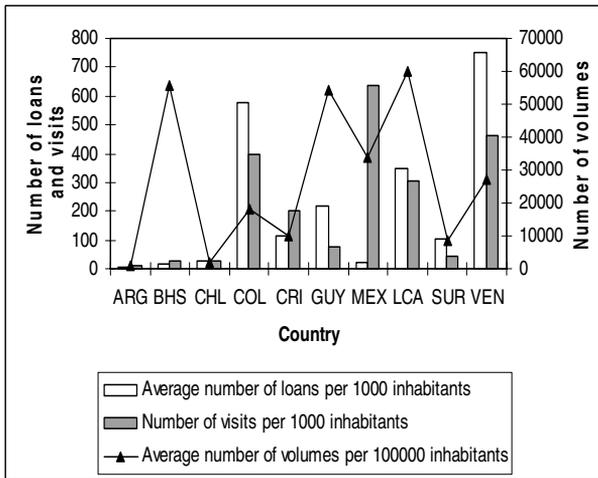


Figure 5

### Intersecting indicators around the 'loan' data

Countries with relatively a high number of loans and visits per 1000 inhabitants don't have necessarily the higher number of volumes in collection. Countries with a high number of volumes in comparison of the use of that collection (loans and visits) could look into the balance between the content of their collection and the needs of their users. For example, a collection composed of too shop-soiled books which information is no longer topical will present a high number of volumes but would not be used by the users of such a library. It is important to notice that loan data doesn't seem reliable since data is particularly high for Colombia and Venezuela in comparison to a country like Mexico which is more populated and has an economic level similar or even higher. Moreover, the respondents of Jamaica and Argentina explicitly mentioned in their comments that their loan statistics don't distinguish between loans and renewals or even between ordinary and interlibrary loans.

### MODIFICATIONS TO THE MODEL 'GLOBAL STATISTICS'

According to the answers provided by the respondents, modifications to the model 'Global Statistics' have been suggested during the meeting of the working group ISO, IFLA and UIS in January 2008 (Heaney, 2008).

Data collected related to opening hours could be formulated in a way to better see the particularities of public libraries or academic libraries. The following partition has been considered: less than 20h; between 20 and 40h; between 40 and 60h; over 60h.

The definition of online catalogue will be clarified to ensure a better understanding by all respondents.

The definition of registered user will be modified to ensure a better understanding by all respondents. The collection of data will also allow the age distribution of registered users to show the importance of youth clientele.

The two questions pertaining to commercial electronic resources will be removed since they present a form of redundancy with the questions related to the electronic collection.

The number of employees will not be anymore categorized as ‘full time’ and ‘part time’ and will not be asked for as Full Time Equivalent’ (FTE).

For financial data, an element ‘Other operational expenditure’ will be added to ensure that financial data add to a total. Besides, all questions where data form a total from subquestions will be explicitly identified as such.

## LIMITS OF THE ‘GLOBAL STATISTICS’ MODEL

The reliability of data had been verified by a simulation of the respondent role from occidental statistical reports<sup>5</sup>. It has been shown that the questionnaire can be easily responded to. However, the format of the question related to opening hours is restrictive and do not necessarily equivalent to the partition used in the reports. Data relating to cultural events and to units content downloads are absent from the reports. This absence does not imply that data are nonexistent but that they weren’t worth publishing even if they exist.

One of the big problems encountered was the difficulty to obtain employee data expressed in FTE. The absence of data in FTE limits the development of indicators and makes the model Global Statistics less standard to ISO 2789 which is formulated with FTE data.

A few concepts didn’t seem clear. For instance, respondents seem not to distinguish events and training sessions. We can thus ask ourselves if other respondents might not have answered that question by making overlaps between the data of events and those of training sessions. The concept of ‘visit’ needs also to be clarified. Almost the half of respondents provided a ‘missing data’ at that question. A little more than 2/5 of financial data were missing. Some respondents indicated

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<sup>5</sup> 2006 Canadian Public Library Statistics (CULC, 2007), Statistiques générales des bibliothèques universitaires québécoises 2004-2005 (Parisé, 2006), LISU Annual Library Statistics 2006 (Creaser, Maynard, & White, 2006), Bibliothèques publiques : statistiques 2005 (Lépine & Demers, 2007), Ontario Library Statistics Summary Comparisons (Ministry of Culture. Province of Ontario, 2005) et CIPFA (2008).

that data were not available (but they exist). One should however not exclude the possibility that financial concepts were not well understood since several financial data provided by the respondents were inconsistent. Other concepts seem to be difficult to measure: loan and unit content download.

The choice of 22 data ISO 2789 in the model Global Statistics implies that some important aspects will not be covered. We think here of the evaluation of the library contribution to cultural diversity, an important goal of UNESCO. This evaluation would have been possible if the data ISO 2789 'Language of document' had been selected (B.2.1.6 in the standard). Of course, the capacity to provide data remains an open question. The model doesn't allow either to bring out the type of events – literary, cultural or educational – and the type of users – children or adults – who participate in events or activities (B.2.2.5). This information would enable us to know better if library activities are proportionately well targeted to their population and to the desired impacts.

The questionnaire in its present form seems not very useful to evaluate the contribution of libraries to literacy. It misses the knowledge of the field that the Global Statistics do not fill. A set of strategic priorities linked to important international organizations, which have the means to support statistical programs, should be established. By anchoring the collection of data on shared concerns, a more strategic statistical program could be obtained. For instance, a question asking for the number of activities related to literacy would be appropriate though the capacity to answer at an aggregate level is probably poor ... Another difficulty in measuring the impact of library over literacy is that literacy data are not available in all countries and the present reference year (2001) differs quite a lot from the one of the questionnaire.

## **CONCLUSION**

With the crossing of several indicators, each country can obtain signals on the global situation of libraries by comparing the interaction of the crossing of these same indicators in other countries having a similar profile. Knowledge of the particular field of libraries of South America lacks to the author of this paper to push further this kind of analysis. However, the exercise stemming from the pilot project demonstrated it is a possibility and exploration paths can be brought out.

The exercise showed that the questionnaire in South American context is achievable in a satisfactory way for public libraries but was not conclusive for academic libraries. Globally, the respondents showed a capacity to provide data. Some questions however were less feed in data or wrongly understood. Sending other surveys on libraries should enable countries to fit to the demand and to identify if a statistical culture is really in development. Nevertheless, in order to reach a profound analysis that can support decision making regarding international poli-

cies and recommendations, the quality of some data, such as loan, need to improve.

One of the challenges of the library community is to acquire a common minimal statistical culture. The pilot project showed it is there in a light frame background. The convergence of the efforts towards the use of shared standards such as ISO 2789 is part of the journey to a shared statistical culture.

## ACKNOWLEDGEMENTS

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# **Libraries' Contribution to Cultural Development and Literacy Education**

# INFORMATION LITERACY INDICATORS: A MUST FOR COUNTRIES

Jesús Lau, Universidad Veracruzana / DGB / USBI VER, Boca del Río, Veracruz, México

## ABSTRACT

*This presentation discusses the background of the Information Literacy Indicators Project of UNESCO, and the challenges and opportunities of their compilation at national and international scale. Information literacy is a priority for national governments if they are to succeed in the attainment of greater socio-economic development. However, measurement of progress in Information Literacy is not easy to carry out due to the lack of sufficient and meaningful statistics. The monitoring of Information Literacy in libraries and the Internet can be one measurement approach. Another, more complex one, is to develop surveys to determine information use by citizens, as well as creating national tests to measure these skills. A final one, with some limitations, is to use national indicators related to the creation, organization, availability, promotion, demand and use of information to determine a country's information literacy development.*

There is a freely available monograph written by the author for UNESCO at: <http://www.uis.unesco.org/template/pdf/csl/InfoLit.pdf>

# KNOWING YOUR READERS AND YOUR COMMUNITY – TOWARDS A BROADER ROLE FOR LIBRARY STATISTICS<sup>1</sup>

Simon Ellis, UNESCO Institute for Statistics

## ABSTRACT

*Literacy is one of the five agreed global goals of UNESCO's Education for All programme and statistics on youth literacy are an outcome indicator for the Millennium Development Goal of Universal Primary Education. Literacy is the only skill that can be measured in an internationally comparable manner, and one of the only indicators for the level of education amongst the adult population. UNESCO Institute for Statistics is the official international body responsible for the collection of literacy data, which are used in all the major international development reports.*

*This paper sets out the changing conception of literacy which had moved from a dichotomous literate/illiterate distinction to understanding literacy skills as a continuum relating to a performance in a wide variety of everyday tasks.*

*The paper looks at new international measures of literacy especially UIS LAMP programme, which has been specially adapted to measure literacy in low literacy environments. It stresses the link between libraries and literacy especially in relation to adult literacy and the sustainability of skills learnt in school*

## INTRODUCTION

From 2005 to 2008 UNESCO Institute for Statistics (UIS) worked closely with IFLA and the ISO library statistics committees to develop a new international survey of library statistics. The survey was piloted in Latin America and the Caribbean. The results are discussed in more detail elsewhere in this publication. UIS staff worked closely with many experts on library statistics, and have sought to find ways to encourage the further development of statistics amongst professional librarians. The results of the survey and these discussions have suggested that on the one hand librarians use statistics more to maintain their library stock and administration than to understand their users, and on the other that library statistics in developing countries, which are UNESCO's main concern, are often minimal and do not address their particular circumstances in running library networks, including for example where to site libraries in countries with high illiteracy. This paper aims to place library statistics within a context of the changing role of libraries and their particular functions in developing countries.

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<sup>1</sup> This paper follows 'Indicators on 'information literacy' and the Information for All programme; a challenge for libraries' which I presented at the IFLA 2008 Conference in Quebec, but has been expanded to cover issues discussed at the subsequent Montreal satellite conference on library statistics.

One major aspect of the broader cultural and informational role of libraries is information literacy. On April 3<sup>rd</sup> 2008 UNESCO's Intergovernmental Council of the Information for All Programme adopted a new framework concerned with measuring people's access to information, including measures of information literacy. If Information for All is to be achieved citizens and residents in all countries must be able to have access to, and be able to make use of public information that will allow them to address their needs in terms of health, education, work, and many other services. It will be impossible to achieve the Millennium Development Goals unless people can find out what they need to know to give themselves new opportunities to lift themselves out of poverty. UNESCO's CI Sector and Institute for Statistics have been working with the International Federation of Library Associations and other expert partners in response to a request from the IFAP Working Group on Measurement for Knowledge Societies to produce guidance to member states. This new framework has been presented in a publication entitled 'Towards Information Literacy Indicators'.<sup>2</sup>

Information literacy has emerged out of frameworks developed in the US and Australia for teaching university students how to access information. In this sense it began first and foremost as a libraries initiative. I will however argue that it has been reborn as a more general initiative to give all citizens in all countries the skills they need to address their concerns of everyday knowledge of education, health, work and other issues. In this new form it needs to be re-ingested into the library system as public libraries find a new public information and education role in the 'promotion of knowledge societies'. This role is one that many libraries find uncomfortable, but it is one that I would suggest they must adopt, especially in the face of the rapid expansion of digital information exchange by mobile phone and other devices.

## **POLICY FRAMEWORK**

The overarching goal of the UNESCO Communication and Information Sector's Information for All programme for 2008–13 is

“to help Member States develop and implement national information policies and knowledge strategies in a world increasingly driven by digital technologies”<sup>3</sup>

This goal reflects a broader interest in access to information and availability of the media, as well as UNESCO's joint leading responsibility for the follow-up to the 2003/5 World Summit on the Information Society. UNESCO's World Report 'To-

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<sup>2</sup> UNESCO (2008). The main paper was written by Ralph Catts of University of Stirling, with Jesus Lau of IFLA and University of Veracruz. UNESCO Institute for Statistics added an appendix with an indicator framework.

<sup>3</sup> *Information for All Programme Strategic Plan (2008 – 2013) Discussion Draft v17*, UNESCO (2008).

wards Knowledge Societies' in November 2005 at the time of WSIS concluded that knowledge societies would be built on three 'poles'; narrowing the knowledge divide, 'a more participatory approach to access to knowledge, and a better integration of knowledge policies.' It's recommendations included the need for the development of knowledge society indicators.<sup>4</sup> The publication of the World Report and subsequent follow-up of WSIS recommendations has seen a shift of interest towards content rather than technology, as one might say 'knowledge societies not technology societies'. Technology is indeed a means to achieve an end, and that end is to allow more people to use the information they can obtain to solve their own problems, to raise themselves from poverty, to improve their health, to access government services and to find jobs.

Phrased in this way the links with other major international policies become clear. The UN Millennium Development Goals seek above all to address poverty issues yet how can poverty be addressed when people do not have access to, or do not know how to access key services such as education and health? For UNESCO the role of education in relation to information access has been identified as a priority by the 2006 Education for All Global Monitoring Report.<sup>5</sup> The report highlighted the importance of the literate environment in achieving UNESCO's paramount objectives of Education for All. It is well known that illiterate people are much more successful in acquiring sustainable literacy skills when they are taught in relation to tasks that students are seeking to accomplish in their everyday lives. Even in developed countries, like Canada, it is becoming clear that students who are successful at school but who then live the rest of their lives in remote communities risk losing the literacy skills they picked up in their childhood. A literate environment, access to newspapers, books, radio, TV and the Internet is thus a key to overall participation in society including social and economic opportunities. Before I worked for UNESCO I led London Skills Forecasting Unit<sup>6</sup> which was responsible for identifying the skills needs of Londoners; we spent a lot of time discussing the skills needed to obtain a job in London, concluding that in a big metropolis it needed special skills to know where to look for a job (word of mouth not newspapers), and how to sell yourself (travel a lot and present yourself in peoples offices, don't just send a cv). Today I would see these skills as part of information literacy.

Information literacy was, and still is, a library based programme. Libraries are seeking a broader role in 'information societies' and often directly in education and information literacy, something that they already know, can give them this role. Everyone's favourite librarian is the one who can find documentation on **anything** – the person who really has top rate information literacy skills. In develop-

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<sup>4</sup> *Towards Knowledge Societies*, UNESCO World Report, UNESCO (2005) pp188-190 for the three pillars and p.194 for statistical indicators.

<sup>5</sup> *Literacy for Life*, Global Education for All Monitoring Report 2006, UNESCO (2005)

<sup>6</sup> Simon Ellis, Amer Hirmis, Mark Spilsbury *How London Works*, London Skills Forecasting Unit, Kogan Page London (2002).

ing countries the library has a unique position. It is the only community institution the role of which is clearly understood, and which has a neutral response to requests; not especially a response of the government or even the local administration but simply a response to help people to tackle their own problems. The public information role of a library therefore sits closely alongside its educational role. Indeed education and public information roles can be brought together in a library that explicitly sets out to create the space in which people interact, sharing information and helping each other, forming a zone for social networking and community discussion.

## **MEASURES OF ACCESS TO PUBLIC INFORMATION – PROVISION**

Information literacy is seen as a set of skills and thus measured at the individual level. However access to public information requires measurement of at least two aspects of media and information before thought is given to measuring skills. Provision; a person may have excellent information literacy skills, but if there is no public information on which to exercise them the objective of a knowledge society will not be achieved. Availability and access; there may be very good public web sites in a country, but if people do not have access to computers then they will not be able to exercise information literacy skills. In summary a public broadcast service may reach every corner of a country, but if people do not have receivers they cannot take advantage of the service. Equally there is no point in people tuning their receivers to try and find public service information if there is no public broadcast service, and it is will no use them hearing such information if they do not have the skills to know what to do about what they have heard.

Statistics on media provision to the population allow countries to measure whether newspapers, radio and TV reach all parts of the country. Data from the UIS newspaper survey indicates that Malaysia, the non-OECD country with the highest newspaper circulation in relation to its literate population had an average circulation of 165 daily papers per 1,000 literate inhabitants. This contrasts with an equivalent figure of 650 papers in Norway (the highest in the world), and less than 2 daily newspapers per 1,000 literate inhabitants in Niger, Benin, and Kyrgyzstan (the lowest figures amongst countries which responded).<sup>7</sup> To these traditional media we can add Internet radio and 'bloggers'. The barriers to provision in the form of telecoms infrastructure and distribution networks mostly relate to cost and geography. Large dispersed rural populations can be very difficult to reach. It is in this area that the advent of the mobile phone has had such an impact, reducing the need for costly and complex installation of fixed cables, and allowing easy exchange of person to person information even in areas with low literacy. The lat-

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<sup>7</sup> UIS Newspaper Survey 2005.

est report on progress towards the Millennium Development Goals indicates that between 1990 and 2005 the number of mobile telephone subscriptions worldwide rose from 11 million to 2.2 billion, while fixed telephone line subscriptions grew from 520 million to 1.2 billion in the same period. Thus land phones were almost 50 times more popular than wireless in 1990, while in 2005 the wireless phone is almost twice as popular as the land line.<sup>8</sup>

Data on provision of information are relatively easy to come by at national level. Press authorities and newspapers themselves generally have data on circulation. Radio/TV regulators, broadcasters or ministries have data on listeners/viewers. The UIS 2006 broadcast survey found that some 60 countries could provide data on geographical coverage of radio and TV, while 27 countries could provide data on the number of hours devoted to education and scientific programmes.

## **MEASURES OF ACCESS TO PUBLIC INFORMATION – AVAILABILITY AND ACCESS**

Given a good level of provision of public information the next question for statistics is whether such provision can be accessed easily by local people. Do households have radio and TV, a fixed or mobile telephone? They may have a computer with Internet access in the house, or they may have access to the Internet through a public facility such as a library or a private Internet café. Radio and TV are the most ubiquitous channels for public information in developing countries. They are relatively cheap and unlike printed media they do not require reading a written text for comprehension. Availability is often increased by using mixed technology. For example newsheets can be distributed by Internet and then printed out for local circulation. The success of the iPod has also led to several programmes in developing countries in which educational material is downloaded like music! Barriers to the availability of information can be more complex and more difficult to surmount than those of provision. They include a wide range of factors such as living simply too far away from a public information point, or being unable to enter a café because access is restricted to men or adults. UIS estimates that there were 775 million illiterate adults in the world in 2007 of which 64% are women.<sup>9</sup>

A key basic barrier at this level is language. Lack of knowledge of European languages, especially English, presents a major issue with regard to accessing the Internet or even knowing how to use technology. Lack of knowledge of official languages or having a mother tongue which has no written text creates even more difficulty.<sup>10</sup> Under such circumstances local people often have to seek the aid of a ‘middleman’ or ‘information broker’ who may charge for their services, and who

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<sup>8</sup> *The Millennium Development Goals Report 2007*, United Nations (2007), p.32.

<sup>9</sup> UIS Literacy estimates 2007, (April 2008).

<sup>10</sup> *Measuring Linguistic Diversity on the Internet*, UNESCO (2005).

may have a vested interest in pointing his customer towards a particular shop or service. The UIS Broadcast Survey 2006 indicated that some 61 countries could provide data on community radio stations, and some 54 countries reported devoting broadcasting time to issues of concern to indigenous and tribal people.<sup>11</sup>

Data on availability and access is normally collected either through subscription data or through household surveys, each of which suffers from a key technical problem. Subscription data – number of mobile phone subscriptions – does not reflect actual availability. For example a male head of household may have several mobile line subscriptions, but his wife and children may not be able to access any of them. Several international and national household surveys collect data on the availability of old and new media technology; radio, TV, PCs (with and without Internet), mobile phones. It is commonplace in such surveys to ask the head of the household to answer on behalf of all household members, but the head may well over-emphasise availability to other members of the household. In some countries upwards of 30% of responses to household surveys are obtained in this way presenting important worries about data quality.

## LIBRARY STATISTICS

Since 2005 UIS has been working with the IFLA library statistics group to see whether the UNESCO global library statistics survey can be revived. As has already been suggested the library is perhaps the most identifiable institution, outside government, at community level across the world. It also has several advantages in relation to statistics. The function of a library is well understood – it is likely that everyone would understand a library as a community facility that lent books and other reading material, even if that facility was a donkey or a spot under a tree. A library is also a good place to collect statistics as there should be staff who maintain some registers of books on loan as well as interest in housing local statistical publications about the community. Data from the National Census should be housed in local libraries, and are generally the source of information on the number of literates in any locality. Indeed it could be argued that census data on literacy should be the starting point for any plan to consider the siting of new libraries; either placed where there is a demand from literate people or where high illiteracy levels may require a school and library to address the problem.

Initial enquiries by IFLA ascertained that the best opportunity for a more complete data return was Latin America and the Caribbean. A survey was drawn up compatible with the latest 2006 ISO standard. In 2007 the questionnaire was sent to national bodies responsible for university and public libraries. Responses were received from 25 out of 41 countries or 61%.<sup>12</sup> The majority of responses covered

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<sup>11</sup> UIS Broadcast Survey 2006

<sup>12</sup> UIS/IFLA/ISO Libraries Survey of Latin America and the Caribbean 2007

public libraries and not university libraries. This is not a particularly low rate of response for an initial international survey.

Further discussions have followed. It would seem that many librarians see statistical indicators as something they are obliged to collect by governments, or which are used to maintain administrative system for regulating their own collections. While both these functions may be necessary I find it startling that so few libraries

- look at external survey data to see what their customers like to read
- use Census data to look at the demographic distribution of potential readership, as well as to plan where best to locate new library branches
- outside OECD countries have even basic management systems to compare numbers of readers with numbers of loans

There is interest in both UNESCO and IFLA to change this picture through their regional structures of offices and committees. We desperately need activists in the regions to work for library statistics that help librarians to improve services for their users!

In the future libraries are likely to play a key role as centres for education and information access. In the UIS/IFLA Latin American survey 16 countries or 39% were able to say how many ‘events’ they held and slightly less (12–14 countries) were able to say whether libraries provided user training sessions.<sup>13</sup> It is of course at these training sessions that users would normally be shown how to access the collections, and these are the courses in Universities in the US and Australia that have formed the basis for the information literacy skills we are considering here.

## **MEASURES OF LITERACY AND INFORMATION LITERACY SKILLS**

The measurement of literacy is obviously of keen interest to librarians. UNESCO traditionally defined as literate someone who can with ease ‘read and write a simple sentence’, but this conception is changing as will become evident later. Based on this definition the global number of illiterates is expected to fall from 692 million in 2005 to 657 million in 2015. Half of these illiterates will be in south and west Asia. However although the literacy rate in Sub Saharan Africa is expected to decrease the number of illiterates is expected to *rise* by over 13 million adults between 2005 and 2015. This contrast is explained by rising populations and the ‘patchy’ quality of the education system. These statements indicate the two major issues for literacy education. Firstly very high numbers of illiterates are concen-

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<sup>13</sup> UIS/IFLA/ISO Libraries Survey of Latin America and the Caribbean 2007.

trated in a very few, usually large, countries. Secondly, especially in Africa literacy provision has to be significantly increased in illiteracy is to be 'halved by 2015' as agreed by countries under the UNESCO Education for All goals.<sup>14</sup>

There are nevertheless a number of reasons why statisticians are not satisfied with current literacy measures. Literacy as measured in this way is usually collected through household surveys, such as the Census or Labour Force Surveys. The interviewer will often simply ask whether everyone in the house is literate. At best all the household members may be asked to read a sentence. Often, when household members are absent, one person is asked to reply on behalf of all members in the household. Under these circumstances literacy rates and skills are often reported in exaggerated numbers. Modern approaches to literacy stress that there are many different 'literatecies' depending on the context in which a person is operating. For example literacy is adding together prices in a shopping list, filling in a government form, reading a newspaper, reading a street sign etc. Language is a key dimension. Indigenous languages may not have a written script. A written language may not be the 'official' language used in education or in printed books and papers. Coding of languages for use on computers and the Internet has added another dimension to this complexity. Such ideas have led to increasing development of tests to measures different dimensions of literacy skills to which I now turn. I will first describe the measurement of skills associated with information location, retrieval and reprocessing, in other words information literacy, and then I will show how such skills have been integrated into UIS new measure of literacy LAMP.

The provision of information as well as access and availability. We have discussed libraries role as centres for information provision in this, and highlighted the fact that despite their perfect positioning for such a role few libraries have taken it up, neither do libraries in developing countries have the basic statistics need to manage their own functions and planning. Nevertheless we have returned to the observation that certain key libraries, especially in the US and Australia were the origin of the information literacy debate.

The US Association of College and Research Libraries were the first to draw up a standard framework for information literacy in 2000.<sup>15</sup> The framework includes five skills.

The information literate student:

1. determines the nature and extent of the information needed.
2. accesses needed information effectively and efficiently.
3. evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

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<sup>14</sup> This section on literacy skills derives from *International Literacy Statistics: a review of concepts, methodology, and current data*, UIS 2008.

<sup>15</sup> Association of College and Research Libraries, *Information and Literacy Competency Standards for Higher Education* (2000) [2004], pp.8-14.

4. individually or as a member of a group, uses information effectively to accomplish a specific purpose.
5. understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

Each skill is associated with several defined levels of competence and indicators of competent behaviour. The skills are normally tested through a questionnaire and thus they may represent more what students know about the subject than their actual behaviour in looking for information.<sup>16</sup>

Australia and New Zealand have a joint framework for information literacy including six standards.<sup>17</sup>

The information literate person:

1. recognises the need for information and determines the nature and extent of the information needed
2. finds needed information effectively and efficiently
3. critically evaluates information and the information seeking process
4. manages information collected or generated
5. applies prior and new information to construct new concepts or create new understandings
6. uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

Standards 1, 2, and 6 are very much the same as in the US version. Standard 3 seems slightly more limited in definition than the US. Standards 4 and 5 seem more elaborate than the US framework in specifying how the information gained is used. The standard recommends using assessment techniques to test whether students actually use these skills in practice.<sup>18</sup> Whereas the American framework is specifically designed for college graduates the Australian and New Zealand one aims at all people<sup>19</sup> even though it subsequently concentrates on a curriculum and formal assessment in an educational context.

In their report to UNESCO Catts and Lau<sup>20</sup> recommend the following information literacy skills:

1. Recognise information needs
2. Locate and evaluate the quality of information
3. Store and retrieve information

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<sup>16</sup> *Towards Information Literacy Indicators*, UNESCO (2008) pp.20-1.

<sup>17</sup> A. Bundy ed. *Australian and New Zealand Information Literacy Framework principles, standards and practice*, Australian and New Zealand Institute for Information Literacy (2004).

<sup>18</sup> *Ibid* pp.26-7

<sup>19</sup> *Ibid* p.4

<sup>20</sup> *Towards Information Literacy Indicators*, UNESCO (2008).

4. Make effective use of information
5. Apply information to create and communicate knowledge

They discuss the different techniques to judge whether people have acquired these skills differentiating between self-reporting of skills through a questionnaire and active testing of performance during problem solving. The approach they favour is to measure information literacy skills through UIS LAMP literacy assessment.

LAMP is UIS's literacy assessment for developing countries. It is derived from the methodologies used for OECD's International Adult Literacy Survey (IALS). LAMP is based on a sample survey of adults (aged 15 years or more) to identify the full range of literacy – from the most basic reading and writing to the skills needed to participate fully in a learning society. The target population is the whole population of adults currently living in the country. The background questionnaire collects information such as family background and characteristics (parental education and language), individual attributes (age, gender, language, educational attainment and employment status), participation in education and training, and literacy activities including the use of information and communication technology and other literacy practices. In addition, variables on human and social capital, quality of life and a series of questions specific to the domains being measured by the assessment may be incorporated.

A 'filter-test', based on a selected subset of items drawn from IALS and from LAMP common items, is used to assign individuals to a low skilled or a high skilled group. Low skilled individuals will be administered a small number of low difficulty items selected from the IALS/LAMP common item pools. These items will allow individuals to be placed on the LAMP proficiency scales and the component results to be linked to these scales. Higher skilled individuals will receive these items and an additional set relevant to the national socio-economic situation.

For lower skilled respondents:

**Level 1** indicates persons with very poor skills, where the individual may, for example, be unable to determine the correct amount of medicine to give a child from information printed on a package.

**Level 2** respondents can deal only with material that is simple, clearly laid out, and in which the tasks involved are not too complex. It denotes a weak level of skill, which is often not apparent in everyday activity. It identifies people who can read, but test poorly. They may have developed coping skills to manage everyday literacy demands, but their low level of proficiency makes it difficult for them to face novel demands, such as learning new job skills.

**Level 3** is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and college entry. Like higher levels, it requires the ability to integrate several sources of information and solve more complex problems.

**Levels 4 and 5** describe respondents who demonstrate command of higher-order information processing skills.

The component skill measures that make up reader profiles are measured by:

1. *Alphanumeric perceptual knowledge and familiarity*: Recognise the letters of the alphabet and recognise single digit numbers; some of the items are very simple.
2. *Word recognition*: Recognise common words that appear frequently in print. These common words are expected to be in the listening /speaking lexicon/vocabulary of an individual who is a speaker of the target language.
3. *Decoding and sight recognition*: Produce plausible pronunciations of novel or pseudo words by applying knowledge of the sight-to-sound correspondences of the writing system, and do this accurately, rapidly and with ease.
4. *Sentence processing*: Process simple written sentences and apply language skills to comprehend – accurately, rapidly and with ease.
5. *Passage reading*: Process simple written passages and apply language skills to comprehend – accurately, rapidly and with ease.

Data obtained in the components assessment cannot be compared between countries or groups with different languages as the language learning process may also differ.

High-skilled individuals are given a set of common items (IALS and LAMP) that will be used to relate national literacy and numeracy proficiency to LAMP scales for the purposes of international comparison, and a set of nationally-specific items.

The assessment is generally being conducted in more than one language to reflect official and majority languages. The test questions relate to routine tasks such as reading a medicine bottle or a government circular, asking respondents to read or interpret a text and say what action they would take as a result. For the purposes of information literacy LAMP includes both a detailed assessment of literacy and numeracy skills, and data on the potential access to information in the home through media and technology as well as the availability of books and participation in education. In particular LAMP considers information literacy as an active skill – an area which is often missing from tests which adopt a more passive approach to measuring literacy. Thus LAMP considers whether respondees can write personal letters or emails, produce maps, charts or diagrams, write letters to officials, and write message at work.

LAMP is currently being piloted in El Salvador, Mongolia, Morocco, Niger, and Palestine, with Jordan, Vietnam, and Peru to follow in a second wave. It is ultimately expected that LAMP data along with that from IALS and other literacy assessments will form the official UNESCO and UN data for monitoring progress to the Millennium Development Goals and Education for All. This will position information literacy and its measurement at the heart of the international agenda for education and poverty alleviation.

## **BACK TO LIBRARIES AGAIN!**

In rural or small urban communities teachers and librarians are most likely to have a sense of what people like to read, whether they can read, and what might be available for them. It has been suggested here that, when an illiterate person requires the services of an 'information broker' to help him read or understand a document, a librarian is one of the most neutral; brokers he can find. Librarians thus may be amongst the best placed to understand what literacy and information literacy mean as well as the skills levels in their communities. They should also, as has been argued above have the statistics to know how many people in their community are literate and to what degree. If libraries are to develop their services; knowing their readership, assuming a role in access to information, or assuming a role in education, they need this information.

Information literacy began as a library initiative in the US and assessment has found a role in many universities in many countries. Higher Education institutions and national authorities in many countries surely have an interest in promoting information illiteracy skills along the lines set out in this paper. If libraries do not feel they have the capacity to work on information literacy they should certainly be asking for the information from National Statistics Offices, Ministries of Education or other agencies.

## **CONCLUSIONS**

I began by establishing the key role of information literacy in relation international development goals. In the latter half of this article I have also show how information literacy indicators are central to UNESCO statistics for monitoring these international goals and as part of LAMP they are part of UNESCO Institute for Statistics most important single strategic project. Information literacy is thus central to both international policy and international statistics.

I have highlighted the difficulties that UIS and IFLA have found in collecting international library statistics, which extends to doubts as to whether many developing countries have the bare minimum figures needed to run national library services. UIS would use global library statistics to emphasise the role that libraries play in poverty reduction through addressing peoples education needs, helping them to identify employment opportunities, or to evaluate various health treatments. If UIS was able to produce international statistics showing what libraries already do in these areas, as well as simply how many people use libraries for different reasons then libraries would be seen by all international agencies as playing a central role in national and community development. Being seen to contribute to development and poverty alleviation means that libraries in all countries would be able to access more funding to support their work, and librarians' achievements in supporting their communities would be recognised.

Of course such statistics would also allow comparisons to be made between different countries. People in national and international agencies would begin to discuss the optimal number of libraries per head of population or the appropriate number of books per head of population able to access them. Naturally such figures would be gross generalisations, but out of this would emerge concern that libraries should have enough books and should reach all communities. This again means more resources and more highlighting of good practice.

In launching the UIS/IFLA pilot survey on libraries UNESCO Institute for Statistics has thus signalled its willingness indeed its belief in libraries as part of the future of the information society, but we can only work to argue and demonstrate their contribution if libraries, throughout the whole world, provide us with the statistics in the first place.



# Public Libraries

# CANADA'S PUBLIC LIBRARIES COUNT!

Don Mills, Director, Mississauga Library System

## ABSTRACT

*The paper covers the history and evolution of an annual voluntary effort covering all major public libraries in Canada, emphasising what is distinctive about it today including content and process. It describes in detail the process involved which requires only 100 hours over 2 months to collect and distribute the extensive results. The paper discusses the value of this effort to the public library community in general and to specific regions and systems in particular. A sample of the current survey instrument will be presented and reviewed briefly noting the distinctive elements of the Canadian model. The numerous reports generated annually for participants in the survey will be described and evaluated as well.*

*The paper covers recent approaches to redefining performance measures for this national group including the place for ISO definitions. It identifies the efforts being made to develop a national benchmarking tool in key areas of national concern and a process and template for local balanced scorecard data as well.*

*The paper concludes by identifying current statistical needs in the Canadian public library community and proposing solutions for the future, including the emphasis on a set of national key performance indicators for public libraries, sound benchmarking practices, and the evolution of a "balanced scorecard" approach to gathering and sharing data nationally in Canada.*

Public libraries in Canada are a success story. Over the decades since the end of the war they have handled great expansion, reinvention, computerization, and digitization with tremendously successful results. They benefited greatly from the country's centennial celebrations in 1967 when vast funds were spent on infrastructure across the country. The philanthropy of the Gates Foundation in the 1990's further improved many. As a result, today the public library service for 35 million Canadians is among the best anywhere and is well used and well regarded.

In Canada public libraries are the responsibility of the 10 provincial governments and the three territorial areas. . Every province has established legislation through a public libraries act that allows for the local government to establish and maintain a public library under certain conditions and in accordance with certain requirements. Cities, towns, villages, regions, counties, or districts – or combinations of these – then by local bylaw create and operate their public library service. This is all permissive not mandatory legislation, unlike schools. Despite this almost every corner of the vast country – from major metropolis to tiny rural area – offers state-of-the-art public library service today.

Public libraries in Canada although created by the senior level of government are then the funding responsibility of the local level. They are mainly funded

through local property taxes, although every province does contribute a small annual grant as well, and typically from time to time some additional project funding. Some local governments also create development levies to collect funds from developers when there is growth to fund the one time costs of the establishment of the service to the new residents. Ironically it is the senior level of government that determines and defines what may and may not be charged for by the local public library. Nowhere are there strict minimum or provincial standards of service although there may be guidelines.

Every province offers some support function for the public libraries of that province. Typically the services of the provincial office focus on the plethora of small (to smaller!) rural and remote libraries that can be found in every province. In addition every province has a grants office that administers the act and the annual grant, and which also collects and distributes annual mandatory statistics from the public libraries of that province. These annual statistical reports have been notoriously tardy in being produced and, although exhaustive and standardized for the province, are not useful in making national or cross-jurisdictional comparisons or conclusions.

As public libraries vary so greatly across the country there is a need to find and use comparable libraries in looking at performance indicators. This will require looking out side the province in many cases, especially for large urban centres of which there are few in the country. The Canadian Urban Libraries Council (CULC) is a national organization of public libraries serving urban populations over 100,000 and it has 30 members. Not all provinces are represented in this group of "large urban public libraries."

CULC has traditionally collected annual statistical data from its members and in recent years from another 30 smaller public libraries in order to produce an annual national statistical report on public libraries. This data set offers at least the statistical result of standardized elements and definitions and in an extensive number of performance areas. The resulting annual statistical report has been greatly respected and appreciated by the national public library community and other related business sectors. CULC's leadership in undertaking this annual survey and data reporting has been held as an example to other library sectors and agencies in the country and beyond.

The Canadian Urban Libraries Council or CULC was until recently the Council of Administrators of Large Urban Public Libraries or CALUPL, and was formed over 30 years ago as a voluntary association to bring public library directors of the country's largest and more influential public libraries together to address common and national policies and to develop national positions on public library issues. As a small group across a large country it worked to connect the major urban centres over a period of rapid and expansive growth. The members were the "movers and shakers" of the day. Over the years the group has grown from a dozen to almost four dozen members and it is still growing annually as urban centres continue to explode in all provinces.

Today CULC's annual survey instrument represents an effort to capture the essence of public library service in the 100 largest public libraries of the country. However, despite being invited to participate in the annual effort only about 70 public libraries actually do each year. Nonetheless the population reported on is over 17 million and represents about 50 percent of the country. So CULC's standardized data elements and reports provide a fair portrait of the public library service of the country.

The basic elements of the annual national CULC survey are the traditional ones – active users, locations, total space, visits, total hours, circulation, programs and attendance, interlibrary loans out and in, financial information in detail, staffing numbers in detail, and also extensive contact information for the benefit of others. In addition to these usual data elements the CULC survey has historically concentrated on collections as part of a commitment to the book publishing and production sectors in the country. Cultural issues loom large in Canada as it tries continuously to preserve and reflect its own culture in the shadow of the American reality so close by. This is particularly important to the country in its publishing and writing industries.

As a result of this cultural commitment the CULC survey contains some unique collection data: items added, items held, titles and copies, subscriptions and copies ... As well the survey collects annual data on the spending habits of reporting libraries. This information includes amount spent on books, amount spent on periodicals, amount spent on non-print, and amount spent on electronics. It then goes on to report on the amount spent with Canadian publishers, with Canadian wholesalers, with American suppliers and with off shore suppliers. It also reports on the annual amount spent on mass market paperbacks and children's materials by request of the publishing community.

The figures from these last elements have guided a lot of actions and activities of the Canadian book industry over the years. As a result today through collaborative initiatives and mutual interests, the presence of Canadian publishing and production has increased in public libraries and the awareness of public libraries has improved in the book sector. Collective efforts have resulted in the rise of a strong national wholesaling sector and improved marketing and promotion of Canadian books products to and through Canadian public libraries. This relationship is not an easy one and requires constant vigilance and communication but the original intent of creating a stronger print culture has been achieved with effort and the numbers.

As well the annual CULC survey has lately focused on electronic activities of reporting libraries and also issues affecting the national community. The survey presently attempts to collect figure son the number of Internet workstations, the number of e-visits, the number of databases provide to the public, and the number of uses of those databases both in-house and through remote access. Although the creation of new reporting elements is an ongoing activity of the group the ability of all libraries to report on these is frustratingly low today, although CULC is not the only group experiencing this difficulty as the community continues to search

for meaningful, obtainable standardized measures of electronic activity in most libraries.

With the annual statistical survey report CULC has also historically provided a series of ranking tables and quartile analyses on major performance measures to assist in the use of the statistics. These have allowed the group to identify medians, ranges, and relative standings of like libraries in key areas of activity. Reviewing these over the years has also allowed for a snapshot of changes across the sector over time. A good example would be the shift in total annual expenditure on materials and specifically the allocation of funds to print, non-print and electronic resources over time. Such information was of particular value to publishers and producers of library materials. Of course the typical measures – loans per capita, membership, expenditures per capita – also get the usual attention by the group.

In recent years CULC has expanded its annual survey of *system level* data to include *branch level* data. This has produced an annual report on key performance elements of over 300 branch libraries from over 25 public library systems across the country. These results have allowed a system to find comparable branch libraries in other systems and to make comparisons and draw conclusions from this analysis. Such information is not collected by the provincial surveys or easily obtained if desired. It has also allowed a national picture to be created of service at different levels of branch size and activity. The survey itself is short and simple asking only for 6 key branch level indicators: size, staff, hours, circulation, programs, and questions. From these numerous performance indicators are produced for comparisons and conclusions.

The distinction of the annual national CULC survey is that it is created, maintained and conducted on a voluntary basis by its members. One large library system voluntarily coordinates the annual effort and the work between surveys. The national library in Canada has not seen a role in coordinating or funding this activity to date. Although each province does produce its own annual statistical report these are not as helpful in planning due to their limited primary reporting function and lateness.

Increasingly in Canada local governments who fund public libraries are expecting that sound business data be part of planning and budgeting. In most cases cross-province comparisons are expected. For example, the public libraries in Canada serving more than 500,000 are fewer than 10 and they are spread across 5 provinces. National standardized data is increasingly required by those planning for and defending excellence in public library service.

As demands on performance measurement change and increase CULC continues to look at its annual survey to produce useful results. In recent years the members have agreed to share areas of current activity or expertise for the benefit of others. This simple additional open question has allowed respondents to pursue areas of need or interest with others. Respondents have also shared the details of their salaries and benefits in detail as well as details of their integrated library systems and contracts.

CULC has for years collected data via a questionnaire and then input the data centrally allowing for coordination and editing. In recent years the survey has provided last year's response and space for this year's numbers in an Excel spreadsheet format. For the last few years a web-based pass-worded real-time survey tool has been utilized. In addition to reducing the time involved from over 300 hours to well under 100 hours, it has improved accuracy and completeness, resulting in a quicker report. As well it has also allowed for notes and comments to be collected and shared with the report.

Gaps and deficiencies of this annual effort have been acknowledged over the years. These include: no year over year changes, no trend analysis, no easy access to historical data, no graphical reports, no French language components, no easy comparison to other data, no relation to socio-demographic data...

Starting with the 2008 statistics report all these issues will be addressed as the group is negotiating with a third party service provider whose product will make all these developments possible – and more. As well, the branch level data will be expanded and included in the survey making participation easier for respondents.

Canada's public libraries have enjoyed access to comprehensive, standardized, annual statistics in a timely and useful format freely for over 25 years. Many libraries have cited the availability of such data as pivotal to their local success in advocating for improved funding and services. This in turn has resulted in raising the national average in key areas such as space provision, collections, hours of service, staffing levels, and more recently in the provision of new technologies.

Today Canadians enjoy an impressive level of public library service from coast to coast to coast. The annual national statistics efforts of the Canadian Urban Libraries Council over many decades have played and continue to play a pivotal role in serving the disparate needs of the public libraries of this country. In Canada because public libraries count, public libraries count.

# ANNUAL SURVEY OF QUÉBEC'S PUBLIC LIBRARIES: A MAJOR REVISION

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## ABSTRACT

*In 2008, a major revision to the annual survey of public libraries (Enquête annuelle sur les bibliothèques publiques – EBP) was carried out jointly by the Ministère de la Culture, des Communications et de la Condition féminine (MCCCF) and Bibliothèque et Archives nationales du Québec (BAnQ), with the support of the Observatoire de la culture et des communications du Québec (OCCQ).*

*Data from the annual survey were revised and standardized in compliance with the international standard ISO 2789 on library statistics, and to meet the needs and expectations of Québec's library community. The standardized and updated survey better reflects the services offered by Québec's public libraries, especially as it concerns electronic services, and it provides performance indicators at national and international levels. It also allows those involved to make the best possible use of the data by greatly increasing the outlets for this information and the means of disseminating it.*

*In addition, the process for collecting and disseminating statistics is now done using a statistical information system supported by a data warehouse, an Internet interface and a report generator. Now that this system has been set up, library managers, administrators of public library policies and programs and interested researchers have rapid access to statistical information that can be easily used for carrying out comparative analysis and management activities.*

## BACKGROUND

The gathering of data from Québec's public libraries by the Ministère de la Culture, des Communications et de la Condition féminine (MCCCF) dates back to 1961. Historically, data collection was part of the management of the MCCCF's financial support programs for autonomous public libraries<sup>1</sup> and regional service centres for public libraries,<sup>2</sup> and it made it possible for statistics on Québec's public libraries to be published annually.

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<sup>1</sup> Call for collections development projects from autonomous public libraries.

<sup>2</sup> Operational support for regional service centres for public libraries.

To give some idea of the Québec public libraries the statistics were about, here is a summary profile of the network in 2006:

- 125 autonomous public libraries,<sup>3</sup> using 316 service points, served slightly more than 6 million inhabitants, which represented 83.1% of the population served;
- 690 libraries<sup>4</sup> affiliated with 11 regional service centres for public libraries (CRSBP, also called Réseaux BIBLIO), with 741 service points, served slightly more than 1.2 million inhabitants, which represented 16.9% of the population served;
- Bibliothèque et Archives nationales du Québec had and has, as one of its mandates, to provide leading edge services to all Quebecers and to all public libraries in Québec.

Until 2006, the MCCCCF was solely responsible for all stages in the production of statistics on Québec public libraries. In 2007, it felt the time was right to call on the expertise of two partners in order to increase the quality of the statistics, standardize them and broaden their dissemination. To accomplish this, the MCCCCF brought itself into association with Bibliothèque et Archives nationales du Québec (BAnQ), given that the latter, a government corporation, has a mandate to strengthen cooperation between libraries and has professional expertise and a technological infrastructure that enable it to be very active in new initiatives and new services for Québec libraries. The two partners also sought the consulting services of the Observatoire de la culture et des communications du Québec (OCCQ), which, since 2000, under the auspices of the Institut de la statistique du Québec, has overseen the production and dissemination of official statistics on culture and communications in Québec.

It does not go without saying that a statistics agency will take part in the production and dissemination of statistics on public libraries. In many countries – notably France – statistical data are compiled by the government agency responsible for libraries, while, in others – Switzerland, for example – it is the national statistics agency's role to collect and disseminate public library data. Until recently, the first model prevailed in Québec, and it is also the one found in the other provinces of Canada.

The specific roles and responsibilities of each of the three partners, all of whom participated in planning a new automated statistical information system and in revising the questionnaire for Québec public libraries, can be summarized as follows:

The MCCCCF coordinated the partnership. It participated in the various stages of the new process.

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<sup>3</sup> Autonomous public libraries (BPA) generally serve municipalities with populations greater than 5,000.

<sup>4</sup> The libraries affiliated with the Réseaux BIBLIO generally serve municipalities with populations less than 5,000.

BAnQ was responsible for the questionnaire itself and for updating it. It gathered the information using a Web application that provides for data collection, consultation and extraction.

The OCCQ played an advisory role regarding the methodological aspects of the survey (particularly data validation and estimation) and the interpretation of the statistical results.

In short, the objective of the three-party collaboration consisted in bringing together the services and competencies of the three public institutions concerned – the MCCCCF, BAnQ and the OCCQ – in order to optimize the process of producing, disseminating, keeping and analysing statistics on Québec's public libraries. The three teams also had a common concern for producing standardized statistics in line with international standards and the needs and expectations of the Québec documentary community. In addition, the partnership offered each of the three participating institutions the possibility of using and disseminating the data according to its own methods, which provided for more widespread and better use of the statistics gathered.

## **THE REVISED, STANDARDIZED ANNUAL SURVEY**

In 2008, the desire for change became a reality. Québec's public libraries responded to a questionnaire that was automated and revised in accordance with ISO 2789, the international standard on library statistics. The 2007 annual survey was composed of standardized questions and it more adequately took account of the services offered by libraries, notably electronic ones. The questionnaire – the first component of the statistical information system – was well received by library staffs when it was placed online. Staffs also had the benefit of a support service attentive to their needs. The service proved very useful, particularly in a context of change.

The structure of the questionnaire is based essentially on the divisions of the ISO standard:

- Collection – stock and additions
- Library use and users
- Access and facilities
- Library staff
- Information technologies
- Expenditure

In Québec as elsewhere, public libraries are expanding their traditional service offering by adding electronic services, which users are discovering and using more all the time. Statistics collection must keep pace with this change in order to measure the totality and diversity of the services available. That is why the questionnaire now includes questions making it possible to list electronic collections,

measure the use of electronic services and provide financial data on acquisition expenditures for electronic collections, particularly databases, periodicals and electronic books. The illustration (Figure 1), taken from the 'Library use and users' section, shows some of the new additions.

The survey results relating to these emerging services include a high rate of null values, for the time being, mainly due to difficulties in providing the data. Though anticipated, these results highlight the challenge to libraries with regard to the collection of data on the use of electronic resources.

## **METHODOLOGY AND DATA VALIDATION**

With regard to the methodological aspects, the OCCQ took part in developing the questionnaire, designed the data validation rules and calculated estimated values to compensate for partial non-response. The data validation, apart from the coherence validation and the professional validation (under BANQ responsibility), also consisted in assessing the probability of observing certain discrepancies with respect to the data of previous years for the comparable questions on the 2007 survey and previous years' surveys. When a piece of data appeared too improbable, the library concerned was contacted again to confirm or modify it.

Although the response rate to the survey can attain 100%, which will happen when all libraries complete the form, some questions remain unanswered – for all sorts of reasons. This is what is called partial non-response. Statistical procedures make it possible to calculate values to compensate for partial non-response and thereby produce statistics more in line with reality. To illustrate, a library may be unable to say how many children's titles it has in its collection, which does not mean it has no works of that type. The results are sure to be more realistic if it is assumed the library has a certain number of children's titles, than if it is taken for granted it has none, even if the estimate will very likely be somewhat off the mark. Statistical methods allow the probability of the estimate to be determined.

Though not always indicated in public library statistics, the use of estimates to compensate for partial non-response is a normal procedure in a large number of statistical surveys. It is necessary in order to avoid systematic bias toward underestimation of the variables measured and brings the non-negligible advantage of making it possible to establish valid diachronic comparisons, since non-response is not constant over time.

## **DISSEMINATION AND USE OF STATISTICAL DATA**

It was agreed that consultation and dissemination of the statistics, in addition to data collection, would be handled using a statistical information system relying on a data storage application, a Web interface and a report generator. The system is

intended to accelerate access to statistical data that can be used readily for analysis and management purposes. Users are offered various possibilities for consulting the annual survey data. All source data, except for nominative data, and a series of performance indicators are accessible for purposes of consultation and the production of customized reports. A selection of reliable and significant performance indicators (currently about 20 of them) complement the data table and present the information in a way that facilitates interpretation of the results.

Starting from a structured menu, users can choose one or more libraries with the help of various other menus (by municipality, region or population category) and select a certain number of data items. The results can be displayed as a table or graph, and then be printed and exported in CSV format.

<b>35. Utilisation des ressources et services électroniques</b>		?		
1	Catalogue en ligne - nombre de sessions	0		
2	Bases de données - nombre de sessions	177		
3	Publications en série électroniques - nombre de contenus téléchargés	0		
4	Documents numériques - nombre de contenus téléchargés	0		
5	Internet - nombre de sessions	13 768		
<b>36. Demandes d'information</b>		?		
1	Nombre total de demandes	1 070		
2	Nombre de demandes transmises par voie électronique	0		
<b>37. Prêt entre bibliothèques</b>		?		
1	Demandes de prêt reçues d'autres bibliothèques (fonction prêteur) - nombre de demandes satisfaites	12		
2	Demandes de prêt envoyées à d'autres bibliothèques (fonction emprunteur) - nombre de demandes satisfaites	175		
<b>38. Manifestations organisées par la bibliothèque</b>		?		
		Total		
		Adultes		
		Enfants		
1	Nombre de manifestations	46	85	131
2	Nombre de manifestations à la bibliothèque	46	84	130
3	Nombre de participants aux manifestations à la bibliothèque	560	1 443	2 003
4	Nombre de manifestations tenues à l'extérieur de la bibliothèque	0	1	1
5	Nombre de manifestations virtuelles	0	0	0
6	Nombre d'expositions			11
<b>39. Entrées</b>		?		
1	Nombre annuel d'entrées		154 293	
<b>40. Visites virtuelles</b>		?		
1	Nombre annuel de visites		0	

Figure 1: 'Library use and users' section of the annual survey

In addition, there are options for viewing records containing a selection or the totality of statistical data for a given library. To illustrate, the summary record gives a representative profile of a library, combining key data on the collections available and services offered, and on the use of the collections and services. It provides quantitative data, together with a certain number of performance indicators (loans per inhabitant, visits per inhabitant, Web sessions per inhabitant, etc.). The graphics-enhanced schematic and visual form of these records makes them suitable for a variety of informational and promotional uses in relations with decision-making authorities.

The numerous improvements made to the annual survey help provide quality statistics that are exhaustive and quickly accessible to all – library managers, funding agencies and library users. Thanks to an innovative partnership, the new annual survey on Québec's public libraries is a successful operation providing for a more dynamic statistical data collection process, mainly through the use of tools that track the evolution of libraries, their dynamism and their will to offer quality services to the populations they serve.

# UNDERSTANDING THE METHODOLOGICAL FOUNDATIONS OF PUBLIC LIBRARY NATIONAL RATING SYSTEMS

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## ABSTRACT

*The Federal-State Cooperative System, recently renamed Public Library Statistics Cooperative (PLSC), is the most comprehensive public library statistical collaborative endeavor in the United States. PLSC has published national statistics describing more than 9,200 public libraries annually since 1991.*

*The ready availability of such large statistical datasets has led to increasingly creative uses of these data, the most ambitious of which is the Hennen American Public Library Ratings (HAPLR). Introduced in 1999, HAPLR devises summary scores for libraries based on a eight PLSC statistical items, publishing annual rankings based on these scores. HAPLR has been generally recognized as a credible, if simplistic, measure of library performance.*

*However, as libraries become more knowledgeable about evaluation, the methodological bases of national ratings systems like HAPLR have come under closer scrutiny. This paper examines the methodological foundations of national library ratings and advocates responsible interpretation and use of ratings results.*

*Two types of statistics collected by PLSC are analogous to ‘enabling’ and ‘use’ statistics [apparently] specified in the IFLA global statistics model. They do not directly measure library quality, value, excellence, user and non-user perceptions, service outcomes and impacts, or relevance of services to community needs. Thus, composite measures (such as HAPLR and BIX) based upon these types of statistics provide only the most basic indications of library performance.*

*This paper discusses key methodological challenges in developing and using composite measures derived from standardized library statistics.*

## STANDARDIZED STATISTICS IN THE HISTORY OF STATISTICAL IDEAS

The global library statistics model developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics, International Organization for Standardization (ISO), and International Federation of Library Associations and Institutions (IFLA) promises to provide a wealth of information about libraries and their contributions to their nations and societies. As statistical historian Desrosières reminds us, ambitious 21<sup>st</sup> century projects such as this one

are built upon statistical traditions that have developed over several centuries.<sup>1</sup> Arguably, the rationale for global statistics is based directly upon ideas from 17<sup>th</sup> and 18<sup>th</sup> century practices in German *descriptive statistics* and English *political arithmetic*.

Desrosières notes two milestones in the progression of statistical thinking that are pertinent to the collection and use of library statistics, and to making comparisons with these data. These milestones are the *creation of equivalences* and *encoding*. Creation of equivalences is the establishment of standard classifications to describe phenomena relevant to a nation or society – persons, groups, events, objects, industries, institutions, jurisdictions, and so on. The classification scheme emphasizes similarities between the phenomena and ignores their numerous differences. Encoding is the specification and use of definitions to assign the various phenomena to the classifications.

Library statistics and performance indicators are obvious derivative applications of these historical ideas. These foundational concepts are sources of both the strengths and weaknesses of standardized statistical data collection. Using traditional library statistics in the aggregate, as public library national ratings do, exacerbates the weaknesses inherent to these statistical collections. To a lesser extent, these weaknesses also affect more routine statistical comparisons of individual libraries. This paper will explore how the creation of equivalences and other characteristics of library statistical data reduce the accuracy and reliability of comparisons of library performance.

## NATIONAL LIBRARY RATINGS SYSTEMS

Among approaches to comparing library operational statistics, public library rating systems are distinguished by their use of composite statistical scores. The rating systems presume that a summary depiction of library performance is desirable and can be accomplished by combining individual performance indicators into singular scores.

In the USA, national public library statistics are collected via the Public Library Statistics Cooperative (PLSC). Initially called the Federal-State Cooperative System, PLSC was formed in 1980 as a collaborative effort by the U.S. Department of Education, U.S. National Commission on Library and Information Science, American Library Association (ALA), state library organizations, and others. The cooperative began publishing national statistical data on an annual basis in 1991.

In 1999, American library consultant Thomas Hennen used PLSC data to create proprietary ratings of public libraries known as the Hennen American Public Li-

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<sup>1</sup> Alain Desrosières. *The Politics of Large Numbers: A History of Statistical Reasoning* (Cambridge, MA: Harvard University Press, 1998).

brary Ratings (HAPLR).<sup>2</sup> Hennen has produced these ratings annually and ALA published them each year until 2007. In its first two years HAPLR inspired considerable controversy among American libraries. Critics noted the small number of performance indicators used and questioned the theoretical basis for the calculation formulae. Others (including highly-rated libraries) supported HAPLR as a sound and reasonable evaluation approach. In the ensuing years the debate subsided and the annual ratings have been published annually – unabated and unchanged.

While serving as a graduate intern at the U.S. National Commission of Library and Information Science, I conducted an in-depth study of the HAPLR methodology. In the study I noted that the ratings have been faulted for lacking a clear explanation of what they were intended to measure.<sup>3</sup> I also suggested that HAPLR's intricate calculations made it impossible for libraries to determine the exact criteria by which they were being rated. Further, the rating system failed to include a clear and consistent account of the limitations of the methodology. Nor had the HAPLR system included appropriate guidance in interpreting ratings in a manner consistent with the methodology and data used.

With my colleague Keith Curry Lance (former director of the Library Research Service in Colorado) I have recently participated in the design of a new American public library national rating system called the *LJ* Index.<sup>4</sup> Instituted by the *Library Journal*, the first edition of these ratings will be issued later this year. Central to *LJ* Index is a program of education aimed to assure that libraries understand the ratings and their methodological foundations. We do this to impress upon the library community that, regardless of their designs, library ratings are necessarily simplistic and unsophisticated assessments of library performance.

## PERFORMANCE MEASUREMENT IDEOLOGY

Library ratings systems are based on traditional library statistical indicators that have been promoted as useful for assessing public library performance and effectiveness.<sup>5</sup> The data are also thought to reflect quality and value<sup>6</sup> Yet, there has

<sup>2</sup> Thomas Hennen. 'Go Ahead Name Them: America's Best Public Libraries,' *American Libraries* 30, no. 1 (1999): 72-76.

<sup>3</sup> Ray Lyons. 'Unsettling Scores: An Evaluation of the Hennen Annual Public Library Ratings,' *Public Library Quarterly* 26, no. 3/4 (2007): 49-100.

<sup>4</sup> Keith Curry Lance and Ray Lyons. 'The New LJ Index,' *Library Journal* 133, no. 11 (2008): 38-41.

<sup>5</sup> Thomas Childers and Nancy A. Van House. 'The Grail of Goodness: The Effective Public Library,' *Library Journal* 114, no. 16 (1989): 44-49; Nancy A. Van House, Beth T. Weill, and Charles R. McClure, *Library Performance: A Practical Approach* (Chicago: American Library Association, 1990); Philip Calvert and Rowena Cullen. 'Performance Measurement in New Zealand Public Libraries: A Research Project,' *APLIS*, 5, no. 11 (1992): 3-12.

<sup>6</sup> Roswitha Poll and Peter te Boekhorst. *Measuring Quality: Performance Measurement in Libraries*, 2nd ed. (Munich: KF Saur, 2007); Suzan Imholz and Jennifer Weil Arns, *Worth Their Weight: An Assessment of the Evolving Field of Library Valuation*, Americans for Libraries Council, 2007. <http://www.actforlibraries.org/pdf/WorthTheirWeight.pdf> (Accessed July 1, 2008).

been growing dissatisfaction with library *enabling* (input) and *use* (output) statistics. For instance, Herson and Altman concluded that these statistics are inconsequential because they:

... do not measure the library's performance in terms of elements important to customers. They do not really describe performance or indicate whether service quality is good, indifferent, or bad.<sup>7</sup>

Indeed, limits to the meaning and substance of traditional enabling and use measures have led to the pursuit of more convincing measures of library outcomes, impacts, and value.

Nevertheless, the main rationale for gathering information of either type – enabling and use measures, or outcome and impact measures – comes from the tenets of *performance management*.<sup>8</sup> This management approach adopts a rational view of organizations and advances the collection of data that will be 'actionable.' Theoretically, operational statistics provide valuable feedback that will contribute directly to improved decision-making, which, in turn, will improve organizational performance. The approach, also known as *results-oriented management*, is central to literature on library assessment as well as to performance measurement literature in public administration, program evaluation, business excellence, and quality management.<sup>9</sup>

In the USA in the mid-1980's, results-oriented management was central to the program of standardized library statistics promoted by Public Library Association. This program argued that use (output) measures 'reflect results or outcomes, the effectiveness and the extensiveness of the services delivered by the library.' Well-managed<sup>10</sup> libraries were expected to track the magnitudes of use statistics and to consider these data as legitimate *results* that library managers and stakeholders would use to monitor the progress and effectiveness of libraries. In practice if not in theory, the idea that library use statistics are synonymous with results is the predominant view among American public libraries today.

Incidentally, it is important to note that, despite claims made by its promoters, the effectiveness of results-oriented management has not been demonstrated. Cul-

<sup>7</sup> Peter Herson and Ellen Altman. *Assessing Service Quality: Satisfying the Expectations of Library Customers* (Chicago: American Library Association, 1998), 9.

<sup>8</sup> Another rationale for collecting statistical data is to promote the value of libraries to key stakeholders. This use assumes that library statistical data are suitable for evaluating library performance.

<sup>9</sup> The United States Congress passed the Government Performance and Results Act of 1993 in order to establish results-oriented management in federal agencies. The U.S. government classifies performance measures into five types: count of products/services provided (outputs), measures of operational efficiency, measures of customer satisfaction, measures of product/service quality, and outcome measures. United States General Accounting Office. *Results-Oriented Government: GRPA Has Established a Solid Foundation for Achieving Greater Results* (Washington, D.C.: U.S. General Accounting Office, 2004, GAO-04-38), 12.

<sup>10</sup> Nancy A. Van House et al. *Output Measures for Public Libraries: A Manual of Standardized Procedures*, 2<sup>nd</sup> ed. (Chicago: American Library Association, 1987), 1.

len has questioned whether performance measurement actually leads to performance improvement.<sup>11</sup> Radin notes that the approach makes unrealistic and inappropriate assumptions about how organizations function.<sup>12</sup> And both Spitzer and Grizzle recount how ‘dysfunctional’ measures commonly found in public and private sector organizations produce a variety of negative and unintended consequences.<sup>13</sup>

## USING COMPARATIVE LIBRARY STATISTICS

A practice central to results-oriented management is benchmarking, the use of comparative data from similar organizations to assess the performance of one’s own organization. This is a fundamental tool in both quality management and performance scorecard approaches. This tool has also been enthusiastically advanced to local governments in the form of *comparative performance measurement*.<sup>14</sup>

The primary reason for acquiring comparative data is the lack of objective criteria by which local governments, libraries, and other organizations can evaluate their own performance data. Comparative data ostensibly help to ‘place local performance in context and, where major performance gaps are detected, may suggest the need for additional analysis.’<sup>15</sup> This approach has been promoted as essential to library management and assessment.<sup>16</sup>

Even so, library comparisons are neither straightforward nor necessarily conclusive. Poll and te Boekhorst are careful to provide numerous caveats about making comparisons using statistical indicators.<sup>17</sup> They make repeated admonitions about interpreting comparative findings cautiously by looking for alternative explanations for measurement variances. Other proponents of comparative performance assessment acknowledge the fact that these statistics should be viewed with a certain amount of skepticism. For example, Ammons notes that localities having high

<sup>11</sup> Rowena Cullen. ‘Does Performance Measurement Improve Organisational Effectiveness? A Post-modern Analysis,’ *Performance Measurement and Metrics* 1, no. 1 (1999): 9-30.

<sup>12</sup> Beryl A. Radin. *Challenging the Performance Movement: Accountability, Complexity, and Democratic Values* (Washington, DC: Georgetown University Press, 2006).

<sup>13</sup> Dean R. Spitzer. *Transforming Performance Measurement: Rethinking the Way We Measure and Drive Organizational Success* (New York: American Management Association, 2007); Gloria A. Grizzle. ‘Performance Measurement and Dysfunction: The Dark Side of Quantifying Work,’ *Public Performance and Management Review* 25, no. 4 (2002): 363-369.

<sup>14</sup> Elaine Morley, Scott P. Bryant, and Harry P. Hatry. *Comparative Performance Measurement* (Washington, DC: Urban Institute, 2001); David N. Ammons. *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards* (Thousand Oaks, California: Sage, 2001).

<sup>15</sup> David N. Ammons. *Municipal Benchmarks*, 7.

<sup>16</sup> Roswitha Poll. ‘Benchmarking with Quality Indicators: National Projects,’ *Performance Measurement and Metrics* 8, no. 1 (2007): 41-53; Ignace Glorieux, Toon Kuppens, and Dieter Vandbroeck. ‘Mind the Gap: Societal Limits to Public Library Effectiveness,’ *Library and Information Science Research* 29 (2007): 188-208; Joseph R. Matthews. *The Evaluation and Measurement of Library Services* (Westport, Connecticut: Libraries Unlimited, 2007).

<sup>17</sup> Roswitha Poll and Peter te Boekhorst. *Measuring Quality*

performance statistics may still be neglecting particular constituent populations, and that local statistics are self-reported, unaudited, and susceptible to errors.<sup>18</sup>

A more troubling problem with these comparisons is the imperfect methods for selecting peer organizations. Morely, Bryant, and Hatry conceded that ‘no two ... jurisdictions or organizations are completely comparable. Each has unique characteristics. As a result, it is impossible to find organizations that are exactly comparable.’<sup>19</sup>

In other words, we currently have no tools for accurately measuring organizational comparability. For this reason, benchmark comparisons, at their best, will be gross estimates. At their worst, they will be inaccurate and misleading. Presently, the library profession’s response to this problem is to advise libraries to apply their judgment and ingenuity in identifying appropriate peers for comparison purposes.

In the case of library rating systems – such as the German Library Association’s BIX ratings, HAPLR, and the new *LJ* Index – this problem is magnified significantly. Rating systems assign libraries to peer groups based on simplistic and imprecise indicators such as community population or library expenditures. Beyond ignoring possibly significant imprecision in these data, this creation of equivalent classes also ignores key differences on factors such as community demographics and needs, library mission, institutional context, and others. As a result, accuracy and validity of final rankings from these systems are compromised.

## HIGHER STATISTICS ARE ALWAYS BETTER

As already noted, there are no objective criteria for evaluating library statistical indicators. This lack was identified by Altman in her description of a classic public library performance study in the 1970’s:

The project team was philosophically opposed to the practice of standard comparisons [of libraries by means of enabling or use measures] because of the arbitrary way in which they were set and the general lack of care used in making the comparisons. Had we taken it upon ourselves to pronounce that certain numbers were ‘good’ or ‘bad,’ we, too, would have been rightly accused of being arbitrary ... The study team felt strongly ... that each library staff should decide for themselves whether the findings for that library were acceptable in terms of performance expectations.<sup>20</sup>

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<sup>18</sup> David N. Ammons. *Municipal Benchmarks*.

<sup>19</sup> Elaine Morley et al., *Comparative Performance Measurement*, 6.

<sup>20</sup> Ellen Altman. ‘Reflections on Performance Measures Fifteen Years Later.’ In *Library Performance, Accountability, and Responsiveness: Essays in honor of Ernest R. DeProspero*, C.C. Curran and F.W. Summers, eds. (Norwood, NJ: Ablex, 1990): 13.

More than three decades later, we still rely on this inadequate solution to a difficult problem. Libraries are advised to avoid automatically interpreting higher statistical indicators as reflections of better performance, and lower statistical indicators as signals of poor performance. Beyond this, libraries receive no further guidelines for drawing final conclusions from statistical comparisons. As a result, they have only their own ingenuity to apply to this task.

Library rating systems, however, are exempt from any obligation to interpret comparative statistics judiciously. Instead, the algorithms used by these systems assume that higher statistical data unequivocally indicate better performance.<sup>21</sup> Without this assumption, comparative rating scores could not be calculated at all. Yet, this methodological compromise weakens the meaningfulness of library ratings as measures of performance.

## **ALL LOANS ARE NOT EQUAL; ALL VISITS ARE NOT EQUIVALENT**

Holt and Elliot (2003) maintain that ‘All circulations [loans] are not equal’ and ‘All visitations do not represent equal consumption of services or equal value to the library customer.’<sup>22</sup> To this we can add that all materials of a given format (books, video recordings, electronic resources, and so on) also are not equal. Approaching this idea from the user perspective, Kyrillidou observes that ‘perceived quality as judged by the user does not relate to the extensiveness of resources or activities in a library.’<sup>23</sup> As already noted, extensiveness (counts) of materials and services communicate little about the relevance, quality, value, content, complexity, or other significant characteristics of library services and resources.

These observations are direct challenges to the legitimacy of the traditional equivalences upon which public library statistics have been based for more than a century. Nevertheless, public library national rating schemes add, subtract, divide, and otherwise combine these numbers without regard for the *homogenized* (to use Desrosières’ term) nature of the data. Both individual comparisons and aggregate comparisons, the latter in the form of library ratings, overlook key details of the actual phenomena that library statistics represent. For this reason library comparisons based on standard statistical data are quite limited in meaning.

Beyond statistical definitions that homogenize data, traditional library statistics do not tap more sophisticated dimensions such as library mission, collection quali-

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<sup>21</sup> In the case of measures of operational efficiency, lower values would be considered indicators of better performance.

<sup>22</sup> Glen Holt and Donald Eliot. ‘Measuring Outcomes: Applying Cost-benefit Analysis to Mid-sized and Smaller Public Libraries,’ *Library Trends* 51, no. 3 (2003): 425.

<sup>23</sup> Martha Kyrillidou. ‘From Input and Output Measures to Quality and Outcome Measures, or, From the User in the Life of the Library to the Library in the Life of the User,’ *Journal of Academic Librarianship* 26, no. 1/2 (2003): 44.

ty, match between services and community needs, contribution to community quality of life, and so on – characteristics necessary to make judgments about library performance, merit, excellence, and value. Again, this lessens the significance of library statistical comparisons and summary rating systems based on these.

## INTERPRETING MEASURED CONSTRUCTS

A crucial step in utilizing library statistics is the interpretation of the ultimate meaning of the measures (as opposed the meanings of magnitudes that measures might take on). In this task libraries are again left to their own devices to decipher what the measures might mean. Certainly, libraries can avail themselves of measurement approaches prescribed in library assessment literature, such as assessments of service quality, quality management, and performance scorecards. However, these approaches provide limited guidance in drawing inferences from library statistical measures. Nevertheless, drawing these inferences is a crucial step in the overall assessment process. Each step in the process – from conceptualizing assessment questions, designing measurement tools, collecting and analyzing data, to formulating conclusions – needs to be performed carefully to assure the quality of assessment results.

Let us consider how this inference generally occurs in a typical library assessment effort. As an example, I suggest one library indicator from the global statistics model developed by IFLA, the UNESCO Institute of Statistics, and ISO – *seats per capita*. Interpreted literally, this indicator is a measure of the amount of physical seating capacity in a library divided by population counts. More abstractly, the indicator can be seen as a reflection of a library's commitment to promoting accessibility to information resources. It could also be evidence that a library fosters in-house utilization of materials, accommodates disabled or elderly patrons, or strives to portray library buildings as comfortable and welcoming locations. Most abstractly, seating capacity may be viewed as a singular indicator among a larger set of indicators that, together, reflect a more generic library attribute one might call 'overall performance.'

By means of this example, we see that, for each individual statistical indicator, a small set of possible interpretations can be derived (presuming that only reasonable inferences are to be considered). Further, these interpretations can vary from concrete to abstract. With library ratings, however, the process of associating individual indicators with various concepts is sidestepped. When library statistical data are combined into single summary scores, these scores are perceived as measures of a single, if somewhat vague, concept of *overall library performance*. Even if we were to qualify this perception by asserting that performance is multifaceted (as reflected in the component statistics used in formulating ratings), the format of single-score ratings still implies that they measure a unitary attribute of

libraries. It is tempting to describe this summative attribute using terms like *quality*, *excellence*, *effectiveness*, or *value*. However, as stated already, standard statistical data fail to tap key library dimensions necessary for representing these more sophisticated concepts. For this reason we should avoid using these terms in this context.

Library ratings exemplify the concept that Desrosières called *encoding*, mentioned in the introduction of this paper. The equivalence class is *overall library performance* and its definition is the formulas utilized by the ratings. These formulas utilize some, but not all, of the available library statistical indicators. When these selected indicators are summarized into a single score, again, certain details of interest are included while others are excluded.

This leaves us with the question of what library ratings actually mean? That is, what generic concepts are represented by the specific selections of library indicators used in public library rating systems? I suggest that the library assessment community can play an important role in guiding libraries in answering this question. And I believe that this task can be facilitated by exploring measurement practices in social and behavioral science research. A basic understanding of these research protocols should help libraries understand the importance of interpreting data carefully and systematically. It should also provide libraries with a greater appreciation of the complexity of the measurement process, itself.

Babbie describes social science measurement as involving the sequence shown in Figure 1.<sup>24</sup> First, an initial research concept or *construct* is identified, for instance, *customer satisfaction*. Then, a nominal definition is established based upon consensus among professional expertise in the field being studied. From this, a more specific definition stating precisely what data will be gathered as measures of the concept. Next, after a measurement tool is developed and tested, it is used to obtain measurements from a real-world setting.

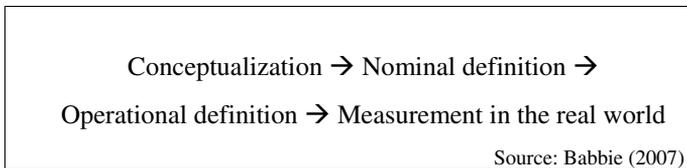


Figure 1

In social science research, the initial research construct is also referred to as a *latent variable*.<sup>25</sup> This designation signifies that the construct cannot be observed directly. Instead, only perceptible phenomena considered to be evidence of the ex-

<sup>24</sup> Earl Babbie, *The Practice of Social Research*, 11<sup>th</sup> ed. (Beaumont, California: Thomson, 2007).

<sup>25</sup> Robert F. DeVellis. *Scale Development: Theory and Applications*. 2<sup>nd</sup> ed. (Thousand Oaks, California: Sage, 2003), 14.

istence of the unobservable construct can be measured. Due to both the complexity of the construct and its inherent unobservability, multiple indicators are usually required to assure that an adequate reflection of the underlying phenomenon is obtained.

Once data are collected and analyzed, researchers then draw inferences from the operational measures in order to make statements about underlying construct(s). Thus, this process requires moving between abstract constructs, their more intermediate meanings, and the operational (more concrete) measures. Patterns and relationships detected in and among these measures are proposed as reflections of patterns and relationships existing in and among the latent variables, that is, the concepts being studied (for example, customer satisfaction, service quality, user attitudes, and so on).

This type of measurement process is implied, but not explained, in popular approaches to performance measurement in library assessment and management literature, such as quality management, business excellence, and balanced scorecards. As a result, linkages between data collected and relevant performance concepts (constructs) – and vice versa – are not nearly as straightforward as these approaches suggest. Our task is to bring these methodological ideas to bear on library assessment practice so that conclusions drawn from performance data will be sound, justifiable, and appropriate.

## RECOMMENDATIONS

As the availability of national and international library statistics increases, use of the data for comparing libraries is inevitable. Library statisticians may well experiment with regional, national, or international library rating systems. In preparation for this possibility, the library assessment community should help libraries understand the problems inherent to these comparative exercises. Since we lack adequate methods for identifying peer libraries, and standard data collection is characterized by both homogenization and inevitable imprecision of data, libraries need to be advised of the importance of interpreting ratings results cautiously. The same is true for comparisons of individual libraries with each other.

Given the significant methodological limitations of aggregate library ratings, one might ask why these ratings should be designed and published at all? I suggest that the ratings can be useful for showcasing libraries and drawing attention to the need for further information about library value and effectiveness. Library ratings are best viewed as *contests* rather than as rigorous measurement exercises. With contests, it is quite legitimate to accept arbitrary restrictions as conditions necessary for conducting the competition. As long as libraries and library stakeholders are educated about these methodological compromises, then ratings scores can be recognized as simplistic, broad-brush feedback about library performance. While some libraries may take pride in scoring very well in these limited ratings, the ex-

ercise may inspire all libraries to pursue more sophisticated evaluation measures to describe and help improve their performance.

## PRESENTATION OF NORWEGIAN INDICATORS

Trine Kolderup Flaten, Library Director, Bergen Public Library

For decades the Norwegian National Library Statistics have been rather detailed and reliable, giving a true, but superficial, picture of the situation in Norwegian public libraries. Figures for loans (different kind of media), visits, collections (very detailed) and financial resources make it easy to compare libraries within the country, and in other countries.

It should be mentioned, however, that the data collected from the school libraries has never been of good quality, perhaps even worse after the rather meticulously control performed by the county libraries (later by the municipal libraries) were abandoned some years ago.

The Norwegian Archive, Library and Museum Authority, established in 2003 as 'ABM-utvikling' (ABM) collects the official library statistics (and museum statistics as well) and present them in a user-friendly way. Library statistics are included in the Statistics Norway 'Statistisk sentralbyrå' (SSB).

As the new ABM authority also was a merger of the former Norwegian Directorate for Public Libraries and the former National Office for Research Documentation, Academic and Special Libraries, one of the first tasks they took on was to work on a closer relationship between the libraries that previously had belonged to different national authorities and thus reported respectively to Ministry of Culture and Church Affairs and Ministry of Education and Research. Indicators and statistics for academic-, research and special libraries had in the past been very different from public- and school library statistics, and in the later years the indicators for these institutions had been adjusted to meet the set of quality standards that the state authorities' require from their mother institutions, which also include up-to-date library service.

As the library services in general, for all kind of libraries, have changed very much since the 1990s, new indicators showing all the libraries' resources and modern services in a better way had to be added as soon as possible

User-studies, surveys and observations had manifested that many users, especially young adults/students etc, visit both public and academic libraries simultaneously, and that they do this to a larger extent than recognized by the libraries themselves. This is one of many reasons for implementing, as far as possible, the same indicators for both public libraries and academic or special libraries, and it will also give a better and more complete picture of all library resources available for the inhabitants, and show all public spending on libraries.

In 2003, the new ABM started a slow, but steady work in order to introduce the same indicators for both academic, research, special and public libraries. ABM discussed types of indicators with an appointed advisory group, representing both types of libraries.

Implementation of new indicators in Public libraries' statistics has for several reasons been rather slow. One reason is the major change in the national system for collecting data from all local government activity.

## **LOCAL GOVERNMENT/MUNICIPALITY-STATE-REPORTING (KOSTRA)**

The initiative from 'ABM' in 2003 coincided with a vigorous pull, from 2002 on, from the Statistics Norway, SSB, and the State Ministry of Local Government and Regional development, in order to improve thoroughly the data reported (both in speed and not least in quality) from the local administrations. The new system was called KOSTRA (Kommune-stat-rapportering), Local government/Municipality-State-Reporting. A lot of governmental resources was allocated to this work in order to have solid data for evaluation of the local government activity – with a set of different purposes: one for the state to get a updated and detailed knowledge of how the local authority fulfil their tasks and to what cost and with what outcome – another is to provide very solid data for the municipalities for benchmarking.

To increase these efforts 'The efficiency improvement networks', formed in 2003, consisting of 2/3 of Norwegian municipalities, focused on benchmarking. The municipalities mapped and analysed productivity, availability, measured quality (professional quality) and user evaluations of services. Thus the municipalities evaluated their own improvement areas, planned and carried out measures within schools, nursing and care, social services, child care, etc. – in fact they covered the sectors that spent most of the municipal financial resources.

Both administrative staff and politicians in the municipalities very quickly took a new and keen interest in data and statistics as a basis for priorities, organisation and other initiatives.

The libraries under municipal and county authorities are also included in KOSTRA, where the emphasis is much more focused on costs than the libraries are used to. And: Public libraries, being obviously more accurate and consistent when it comes to mapping and data-collection than many other sectors of the local services, have some times experienced municipal 'benchmarking' on somewhat unreliable basis. However, the KOSTRA-system has improved steadily and fast. The data-collection is very efficient and timeliness is regarded as extremely important. The first raw-data from the previous year are collected in February, and (preliminary) published in March. Then revised figures are published in June. The municipalities have great confidence in this system. Fresh data have triggered the local authorities' interest in the facts and figures, they feel they have a tool for improving the effectiveness and for evaluating the outcome of the money spent.

KOSTRA work out recommendations for how to calculate and map even the most difficult items, and little by little the municipalities will report comparable financial data in most fields. One example: For decades it has been impossible

to compare cost/value of buildings, premises, sports installations, grounds, etc. including costs for operating them, from one municipality to another. As costs connected to premises may cover from 10 -30% of the public libraries' gross budget, it is important also for library managers to identify these costs before comparing with others. From 2007 on these costs may be identified in the national statistics.

## **ABM AND THE OFFICIAL LIBRARY STATISTICS**

ABM's work on indicators and improvement of library statistics goes on. The newest draft version of indicators is from 2007. Adjustments in Public Library Statistics have been discussed with an advisory group. Some changes are introduced for 2007: size of the libraries user area, and the number of active borrowers (per year). For 2008 several new data will be introduced, similar to those collected from Academic and Research Libraries. They are mostly on digital collections, and the use of them, downloads, etc. and use of databases and content on the library's website.

To further the process of identifying and get experience with suitable indicators, ABM has asked for 10 + 10 interested libraries to take part in two working groups, one for public libraries and one for academic and research. The task is: 'Benchmarking by the use of result- and management/development indicators'. They shall work on tools for evaluation and quality management, and try these in practical use in the participants' own institutions. The indicators should be suited for both benchmarking and internal use in one institution. Benchmarking with similar libraries should be carried out.

One of the real challenges will be to find useful indicators that cover the goal or service-declaration for mother institutions or the municipalities' diverse service declarations.

To map user satisfaction is a challenge for public libraries, who serve more than half the population, and surveys, questionnaires etc. will usually cover a random and very small selection of users. Here library users often appear to be too pleased, for whatever service they get. They should complain more!

## **STATISTICS CAN'T TELL THE WHOLE TRUTH**

In Norway, as in the other Scandinavian countries, there is a growing interest in analysis and evaluation in order to understand trends in library use and to improve library management and services. The national library statistics have definite limitations when one want to investigate phenomena more thoroughly, and in recent

years there have been several research- and other studies adding valuable supplementary information to the general statistics.

In my library, Bergen Public Library (250.000 inhabitants, the second largest Norwegian city) the librarians take great interest in performance measurement of all kinds; and initiate or take part in several studies to increase our knowledge and understanding in order to improve the services and make it more efficient.

## **VISITORS AND BORROWERS – WHO ARE THEY?**

Who are asking for the libraries services, and who are the non-users? These are crucial questions for every library. Visitors can be counted, but gender and age are difficult to register. Borrowers, however, can be counted and their loans analysed up and down. Are visitors and borrowers mostly the same persons? Difficult to tell – but a fresh study in the 5 largest public libraries in Norway indicates that they may be, with some clear exceptions.

For the last few years in Norway there have been about 5 library-visitors per inhabitant, but there are great regional disparities. In 2005 to 2007 the number of visitors sank – while the use of internet in private homes increased immensely.

There are significant differences between smaller public library and larger ones. Smaller ones seems to have a high percentage of children, up to 60% of their total number of borrowers, many grown ups and fewer young people.

In the larger libraries the picture is more like Bergen Public Library: The city has 250.000 inhabitants and 30.000 university students and very good University and university college libraries. At the public library we have since mid 1990s counted borrowers distributed by age groups (Figure 1). We distinguish between ‘registered borrowers’; that is: those who have once got a library-card, and ‘active borrowers’. In Bergen over 80% of the inhabitants are registered borrowers, and over 30% of the inhabitants have used their library card last year. Among young people (11–17 years) more than 90% are registered borrowers, and half of them are active per year. More girls than boys borrow. Young people, age 15–30, are the most frequent borrowers in Bergen, as in other larger cities in Norway too.

For the one third of the daily amount of visitors who also borrow material, we have a lot of information on their loans via the automated library systems

Three years ago Bergen public library participated in a project ‘FRITT VALG’ (Free choice) (the 4 largest public libraries in Norway, and 3 from smaller, rural areas) to find out more about the preferences of young people aged 11–17, regarding library use: (Do they borrow novels, videos, cartoons, video, are they preferring books for adults or for children ... etc.? How many young people use the library? Is use decreasing or increasing as they grow older? What are the differences between boys and girls regarding what kind of material they borrow? Are there differences in use between cities and rural areas?)

## Active Borrowers 11–17 Year-olds

Figures from 96 municipal libraries (2004) representing near 30% of Norway's population, show that 52% in this age group are 'active borrowers'. The boys use is decreasing as they grow older, girls use increase. 11–17 years-old are frequent borrowers; they are 14% of the total amount of active borrowers, but only 9% of the inhabitants in the same areas. In these 96 libraries 32,2 % of the total amount of inhabitants are active borrowers.

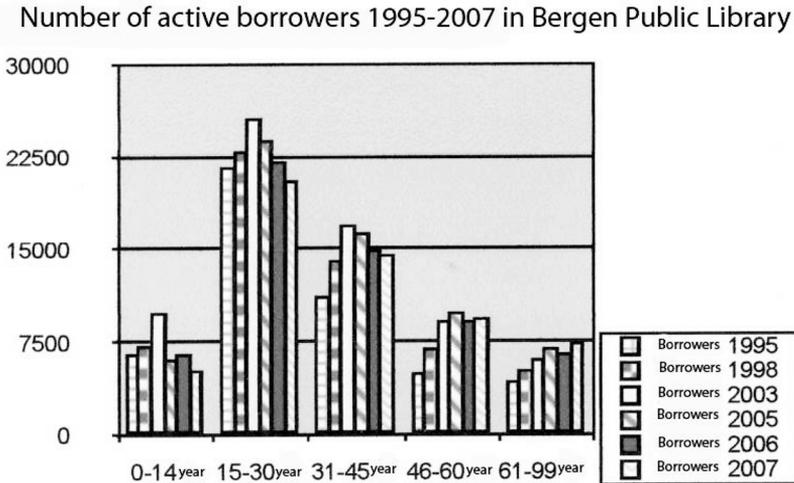


Figure 1: Borrowers by age

## A FRESH STUDY OF USER BEHAVIOUR IN FIVE LARGE PUBLIC LIBRARIES IN NORWAY'S FIVE LARGEST CITIES.

We know how many visitors we have, but we do not know exactly what they are doing while they are in the library. With support/grants from the state authorities, ABM, another project, comprising the 5 largest public libraries in Norway, aimed to find out what people really do when visiting the library. Methodically this is a quite difficult project, based on observation on customers' behaviour.

This study was inspired by a Danish one from 2004. User-activity in 30 smaller public libraries was observed. Later on – in 2006 – Århus Public Library (the city next to the capital in size) conducted a similar observation, mostly to have input for planning their new main library. The Norwegian study added two questions to

the observation: one on the users' age, the other on their mother tongue. The observations were carried through in October/November 2007. The outcome seemed to be rather reliable, and showed concurrence with our statistics for loans and returns, etc. (Figure 2)

And what are users doing in addition to borrowing/returning material – compared to those who do not borrow/return ? (Figure 3)

The final report was launched this spring.

There are a lot of similarities between the results reported from Århus and the Norwegian main libraries. And there are interesting differences between the group of 30 smaller libraries and the larger one in Denmark – and probably the same pattern goes for Norway, too?

From the statistics we know that Norwegian larger public libraries have many visitors, and many young ones, but much lower lending figures than other Scandinavian or even Northern-European countries. (Figure 4)

Virtual libraries, collections and services are – when it comes to statistics – still rather new and challenging fields for our profession. Visits, users, user behaviour, navigation, 'collections', services, promotion, etc. should be followed even more carefully than the traditional services. This is an important task just now.

On the other hand we have the renewed and keen interest in 'Libraries as places'. We ought to pay more attention to how and why people like to use the physical library. New studies should be performed in a variety of libraries, and the outcome should be compared and analysed. This is another important task just now.

What are the users doing at the library? Key figures. From a study in 5 Norwegian large public libraries (2007)

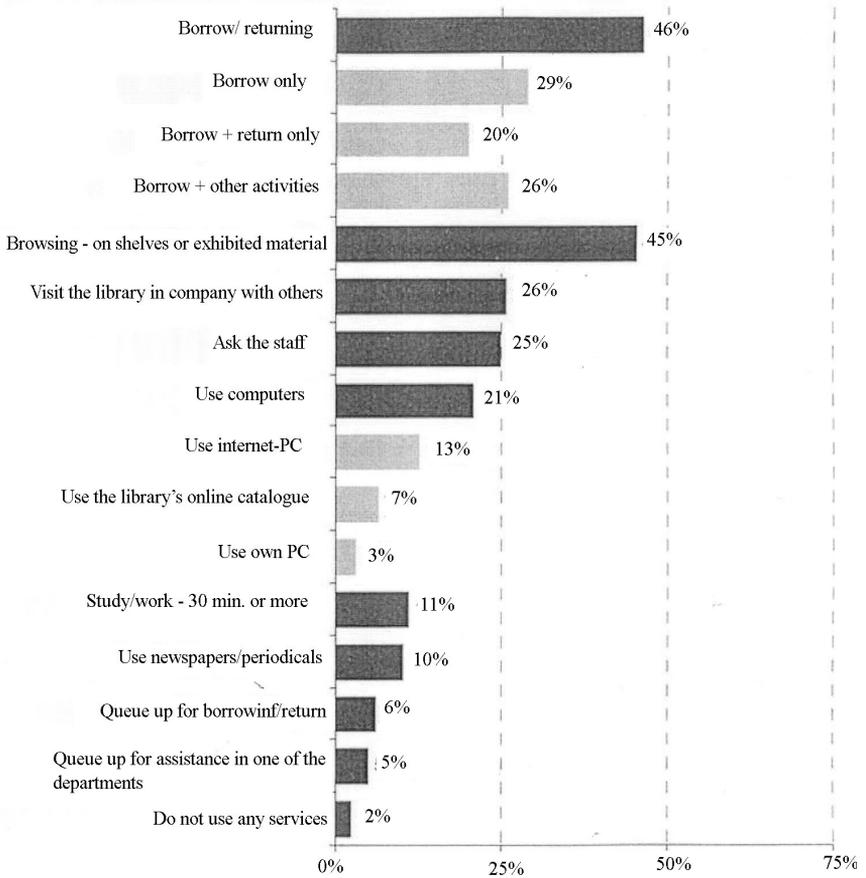


Figure 2: Activities in libraries

Activities in the library, distributed on those who borrow or return material and those who do not. From a study in 5 norwegian large public libraries (2007)

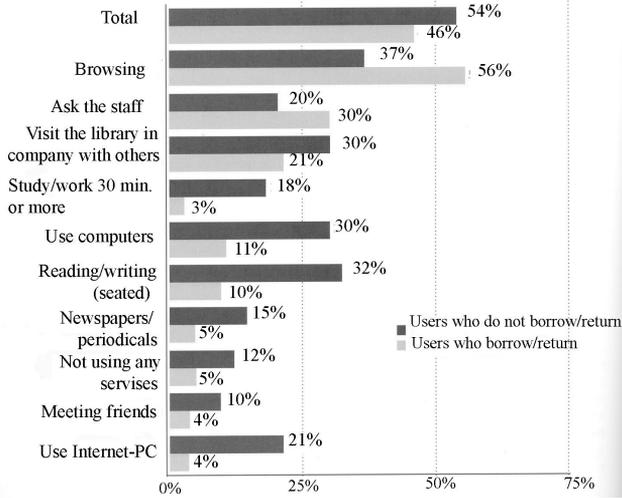


Figure 3: Activities linked to borrowing

Average library use per year/user's age.  
Based on usergroups from astudy in 5 Norgwegian large public libraries (2007)

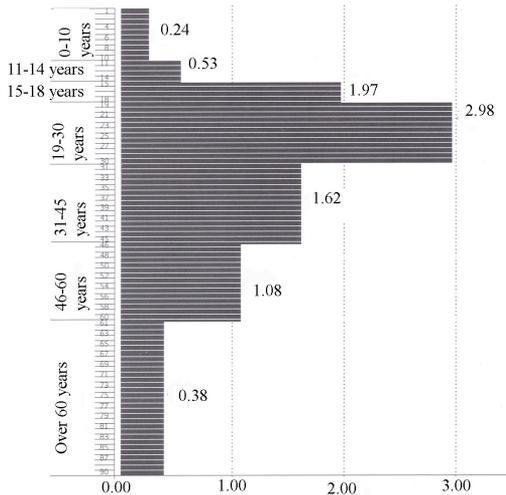


Figure 4: Visits linked to age

# QUALITY STANDARDS AND TARGET OUTPUTS BASED ON BENCHMARKING STUDIES IMPROVED BY A PROPOSED PROSPECTIVE BALANCED-SCORECARD MODEL FOR THE MONTRÉAL PUBLIC LIBRARIES SYSTEM

Pierre Meunier, Montreal Public Libraries System  
with the collaboration of Susan Nguyen, Gina Pinet, Nancy Asselin

## ABSTRACT

*According to the ideas generated by the Montréal Summit in 2002, it was inevitable that the Public Libraries System would have to be consolidated following the merger of 28 municipalities on the Island of Montréal. Public libraries are considered a 'proximity service' and come under the responsibility of each borough. The situation was analyzed (the diagnosis) and a 10-year term Consolidation Plan (2005–2014) was developed. The Consolidation Plan includes strategic axes and specific objectives. Thresholds defined by minimal standards of service and estimated by clear indicators of performance in each of the fields of normalization are in place to ensure that the specific objectives are met. The Consolidation Plan also provides spaced target outputs during the 10-year term. The financial investment to support this Consolidation Plan is estimated at more than CDN\$230 million.*

*A Prospective Balanced-Scorecard Model is proposed as a progressive evaluation method of the Consolidation Plan settlement process, which is based on the introduction of new minimal standards of service and performance measures. In general, performance measures are based on ISO standard 11620, but some original standards and performance measures will be adapted to the specific needs of a public library system in an urban region including the large disparities as were determined in Montréal. Selected statistical indicators, standards and performance measures projected for balanced scorecard model are presented.*

*The goal of this multi-level Balanced Scorecard is to effectively describe the performance of the Public Libraries System and, more specifically, centralized units – strategic and tactic levels (Planning and Development, Programs and Services to Boroughs, Cataloguing, Classification and Processing Departments) and Decentralized Public Services – Operational Level (branch libraries under the responsibility of boroughs) in order to apply new strategies and orientations of services as determined by the new Framework. In developing the Consolidation Plan, it was noted that its success would depend on the prioritization of determining the main quality standards and target outputs, which will be estimated and projected by simulations, based on correlation analysis, and benchmark studies with Canadian Urban Public Libraries Systems serving more than 500, 000 inhabitants. Finally, the Prospective Balanced-Scorecard Model facilitates the evaluation of interdependent outputs and dimensions of library activities*

## **PURPOSE OF THIS PAPER**

Before presenting the Proposed Balanced Scorecard Model for Montreal Public Libraries System and the benchmarking process, it is important to point out some aspects of the municipal administration in Quebec. First, the public libraries are under the responsibility of municipal government. Besides, a great majority of the 105 public libraries located in the largest municipalities (serving 5,000 or more residents), are managed by their municipal administration by virtue of their municipality's charter. The provincial Ministry of Culture (Ministère de la Culture, des communications et de la condition féminine) sets up different grant programs to support the development of library networks.

In 2002, the provincial government of Quebec decided to proceed to the amalgamation of large municipalities. By decreeing and defining the specific legislative framework in the municipal merger process, the former cities (as Montreal) and towns were obliged to set out and provide minimum service standards. These obligations are specified by classes 143 until 146 of the new City Charter of Montreal. The municipality must fix the level of services in each of the boroughs to assure service offerings in municipal libraries. Furthermore, by virtue of this legislation, the application of standards may not in any way compromise the autonomy of local library service management by the direction of boroughs. Also, it is important to mention the proposed standards may not in any time concern the other independent municipalities located on Montreal Island.

This legislation confirms the managerial autonomy of the boroughs as it relates to libraries. Also, the borough budget must be established by respecting these minimum service standards. The objective of establishing such standards is mainly to secure equality in documentary services for the citizens of the 19 boroughs of new city of Montreal by protecting a minimum threshold defined by norms. For this purpose balance in the endowments process will be a function of disparities based on minimal standards and the service levels will be defined by the Consolidation Plan. The quality standards must guarantee the minimum service levels in each borough. The Direction of the Montreal public libraries uses this opportunity to propose new standards of minimum services (quality standards) and to introduce performance measures to the new library system. For this reason, the situation was analyzed (the diagnosis) to evaluate the disparities in socio-demographic factors, to determine the deficiencies in resources and to estimate the imbalance in the service offer. Finally a 10-year term Consolidation Plan (2005–2014), based on new minimal standards of quality, was proposed to upgrade the level and variety of services.

Now, a Prospective Balanced Scorecard Model is proposed as a progressive evaluation method of the Consolidation Plan settlement process, which is based on the introduction of new minimal standards of service and performance measures.

This paper provides a brief presentation of the diagnosis of disparities and imbalance of resources and of the Consolidation Plan. In the second part, the Bal-

anced Scorecard Model is described in terms of a conceptualization approach and of its contents (management concerns (or objectives), selected quality standards and target outputs, performance indicators). Also, the proposed Scorecard model includes related measures and considers the interdependence of marketing dimensions. Finally, the evaluation of the contributions of branches and boroughs, by specific investments and initiatives to strategies related to the Consolidation Plan, will be represented by the Operational Balanced Scorecard, utilising cascading and drilling processes. Some original and innovative standards are proposed to be inserted in the Balanced Scorecard to support the Consolidation Plan and to take count of disparities between boroughs.

The goal of this multi-level Balanced Scorecard is to describe effectively the performance of the Public Libraries System and, more specifically, centralized units – strategic and tactic levels (Planning and Development, Programs and Services to Boroughs, Cataloguing, Classification and Processing Departments) and Decentralized Public Services – Operational Level (branch libraries under the responsibility of boroughs) in order to apply new strategies and orientations of services as determined by the new Framework. In developing the Consolidation Plan, it was noted that its success would depend on the prioritization of determining the main quality standards and target outputs, which will be estimated and projected by simulations, based on correlation analysis, and benchmark studies with Canadian Urban Public Libraries Systems serving more than 500,000 inhabitants. Finally, the Prospective Balanced Scorecard Model facilitates the evaluation of interdependent outputs and dimensions of library activities

## **DESCRIPTION OF THE NEW PUBLIC LIBRARY SYSTEM OF MONTREAL**

Statistics for 2005 (the first year of the next ten-year term of the Consolidation Plan), 4 years after the merger of municipalities on the Island of Montreal, show that the new library system with 44 libraries located in 19 boroughs welcomes a little under 6 million visitors (5,110,000 entries) and makes about 8.3 million loans to 549,162 active library users. In addition, this network, which has more than 600 employees (618.3 FTE) preserves, manages, develops and promotes a stock of several million documents. A Bookmobile as well as mail and drop-off services for the elderly add to this service offering. There are more than 3.2 million printed monographs. (that is 2.06 books per inhabitants). The whole represents an investment of about CDN\$66.5 million a year.

As for the population of the new municipality of Montreal, it now totals 1,562,660 inhabitants. The library system succeeded in reaching 35.1% of the total population. In certain boroughs, more than two-thirds of the residents were and are active members.

## **ASSESSMENT AND CONSOLIDATION PLAN**

Following the merger of the former suburbs and city of Montreal, located on Montreal Island, the government of Quebec and the City of Montreal realized the necessity of analysing the state of the library system, to determine priority improvements and plan its consolidation. The Service of Cultural Development of the City of Montreal and the Ministry of Culture and Communications of Quebec shared the responsibility of carrying out this diagnosis. It aimed at profiling the situation of the libraries of the Island as a whole, both internally (resources) and externally (utilisation figures) by examining the following sectors:

- human and documentary resources and buildings;
- services to the library users;
- services to libraries;
- clients or library users;
- new technologies;
- performance of services;
- service area.

A preliminary report was submitted to the Ministry of Culture and Communications of Quebec in August 2003. An improved version including a more detailed description of the strengths and weaknesses of some components of the library system and a comparative analysis was completed and submitted. This analysis dress the principal weaknesses and disparities of 44 service points in 19 boroughs relatively to Annual opening hours, Staff, Document resources and Space Area.

The results of our Assessment for 2002's figures were presented in details in the first part of our presentation at 2005's IFLA Satellite Conference held at Bergen (Norway) An updated version, including figures for 2004 has been produced. These documents are available on request.

In comparison with library systems of Canadian cities serving 500,000 residents and more, Montreal Public libraries present these imbalances:

- human resources
  - o shortfall of 132.5 librarians
  - o shortfall of 518.9 employees
- collections
  - o shortfall of 1,628,640 books
- space
  - o shortfall of 31,903 m<sup>2</sup>
- opening hours
  - o shortfall of 25,265 opening hours

Considering that there was a gap between supply and demand (that is the deficiency of the resources required by virtue of expected needs and of levels of use of the

services and the documentary resources anticipated by comparison with tendencies followed by large Canadian public library systems with superior performance), and disparities in the resources and socio-demographic characteristics among the boroughs of the new city, new standards favouring the diversification of the levels of documentary services must be conceived. The project of Montreal public libraries illustrates the importance of defining minimum standards and determining performance measures according to the mission and specific objectives of the organization.

To redefine the new standards that must be recommended for Montreal, it seemed relevant to opt for a transverse approach inspired by management through goals. Therefore, according to the specific objectives retained, the identification of normative indicators (minimum service standards) and of performance indicators, to measure the degree of deviation from the standards, seems more coherent and more justifiable.

A strategic planning sub-committee was put in charge of developing a strategic plan and submitting it to the minimum standards committee. This plan contains five strategic goals or axes and 17 specific objectives.

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A strategic planning sub-committee was put in charge of developing a strategic plan and submitting it to the minimum standards committee. This plan contains five strategic goals or axes and 17 specific objectives. These strategic goals are:

- Ensure Montreal's population has access to high-quality service
- Increase readership and library visits among people under 17 years of age
- Strengthen library use as a tool for integration and social development
- Reinforce the role of libraries as a way of life
- Promote Montréal as a city of reading and knowledge

This Consolidation Plan provides a 10-year term (2005–2014) to upgrade the resources and the number of service points.

We can consider during the first two years the start has been very slow but the next steps will be more determinant. In 2005, we began the harmonization of 8 distinctive integrated library systems by replacement with the new system Millemum. In 2006, according to the deficit of opening hours in 68 % of the 19 boroughs, we increased the minimum opening hours to 47 and purchased multimedia (DVD) documents for the service points of former city of Montreal. In 2007, we will upgrade the minimum opening hours to 53 during the year and to 47 in Summer.

Also, the plan provides to increase substantially staffing levels (librarians: 110 %; other employees: 57,4 %) to improve quality of service, reader advisory and reading programs in target boroughs. Finally, it will provide universal loan and returns.

The same Consolidation Plan includes investments:

- to improve 39.5 % of the depth of book collection in 80 % of the boroughs (investment in 2006 equivalent to only 1.7 % of projected costs for multimedia materials);
- to create start-up collections for new libraries;
- to develop thematic collections (multiculturalism, francisation and return to school),

Finally, some important funds will serve to make more space available – an increase of 54 % in more than 84 % of the boroughs (more than a dozen real estate projects: additions, up-date to standards, relocations and expansions)

Considering the amplitude of required investments (an average of CDN\$200 million) to reduce and eliminate the gap with large and urban Canadian public libraries, probably we will be obliged to include an additional three-year term to the original plan (until 2017). It is really a sprint as a race against the clock comparatively to the intensive and continuous development of other Canadian large public libraries.

But, with the innovation as outreach programmes, liaison agents with the population of boroughs, mobile libraries and new approaches based on Public libraries without wall, we are sure our investments will have substantial impacts on the library uses and the output.

Important increase of all indicators of library uses: during next ten years we anticipate doubling the circulation (9,287,000 additional loans) and the number of visitors (5 million more visitors) and increasing the market penetration rate from 10% to 15 %.

Finally, the assessment completed in 2005 is the first step of our transverse approach as an integrated planning system. The new orientations and positions concerning new roles and objectives for Montreal public libraries (included in the Consolidation Plan) will be based on the progressive standard achievement of efficiency and effectiveness. All the parts of this transversal approach will cover the entire documentation chain and all facets of library services and resources.

## **BALANCED SCORECARD CONCEPTUALIZATION**

A Prospective Balanced Scorecard Model is proposed as a progressive evaluation method of the Consolidation Plan settlement process, which is based on the introduction of new minimal standards of service and performance measures for 10 *measurable management concerns* according to these 5 marketing dimensions:

- clientele
- process
- outreach and development (or scope of activities and development)
- infrastructure
- and financial plan.

The goal of this multi-level Balanced Scorecard is to describe effectively the performance of the Public Libraries System in terms of effectiveness, efficiency, consistency, relevance, impact and outcomes in relation to targets: standards – minimum service levels and expected output and, more specifically for

- Centralized units (strategic and tactic levels):
  - o Planning and Development
  - o Programs and Services to Boroughs
  - o Cataloguing, Classification and Processing

and for

- Decentralized Public Services (Operational Level):
  - o branch libraries under the responsibility of boroughs

in order to apply new strategies and orientations of services by relevant and appropriate initiatives to deliver optimal services.

In developing the Consolidation Plan, it was noted that its success would depend on the prioritization of determining the main quality standards and target outputs, which will be estimated and projected by simulations (or projections) and benchmark studies. Finally, the Prospective Balanced Scorecard Model will facilitate the evaluation of interdependent outputs and dimensions of library activities. (Figure 1)

In general, performance measures are based on ISO standard 11620, but some original standards and performance measures will be adapted to the specific needs of a public library system in an urban region, including the large disparities as have been determined at Montréal.

Some difficulties were expected with application of Kaplan's Balanced Scorecard conceptualization approach based on the selection of limited objectives, as aim and objectives related to general mission of an enterprise. The success of the Consolidation Plan settlement process of the new Montréal Public Libraries needs to be evaluated more by performance measures related to management concerns provided by the 10-year term than by any measures related to the realization of specific objectives.

Specialists at the business school affiliated with the Université de Montréal recommended us an appropriate solution. They proposed these three approaches:

- splitting the mission into three strategic axes,
- dividing measurable management concerns into five marketing dimensions
- evaluating the performance of the five marketing dimensions (Figure 2):
  - o clientele,
  - o processes,

## Consolidation Plan

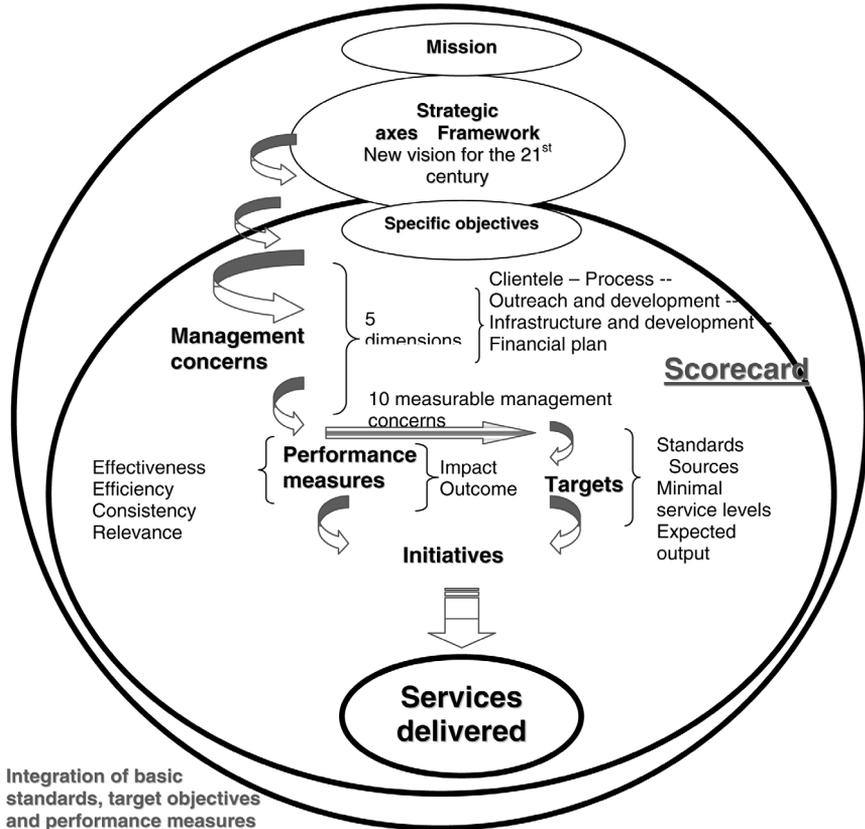


Figure 1: Consolidation Plan

- o scope of activities and development = outreach and development : including territory covered, mediation and development of outreach as libraries without walls and promoting programs,
- o infrastructure: documentary resources, NTIC and space areas
- o and, finally, financial support.

The selection of specific objectives and/or management concerns related to strategic decisions in comparisons to the operational follow-up process were classified and defined by a cascading process in two distinctive and related Balanced Scorecards:

- ‘Strategic’: highest level – strategic and tactic levels
- ‘Operational’: intermediary and first levels – operational levels.

# Chosen Dimensions

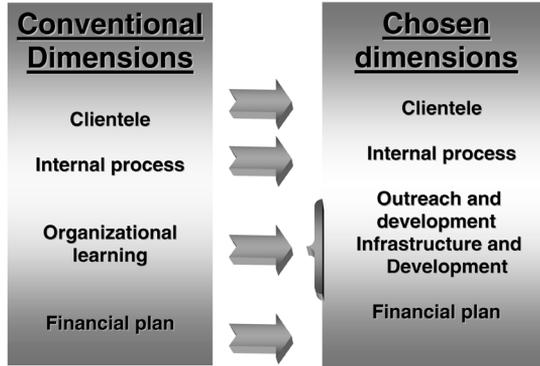


Figure 2: Marketing dimensions

By our transverse approach, for each marketing dimensions, the specific objectives of the Consolidation Plan in terms of measurable management concerns will be evaluated in terms of performance indicators according to expected outputs or to minimum required resources (standards). These direct relations between the Consolidation Plan with standardization process and balanced scorecard in terms of performance measures are illustrated in the following figure. (Figure 3)

According to five marketing dimensions and these ten measurable management concerns, the Consolidation Plan can be redefined by the first three strategic axes related to the general mission: to reinforce the role of libraries as a way of life to support the development of reading and knowledge.

## **A NEW FRAMEWORK: MONTREAL PUBLIC LIBRARIES SYSTEM AT THE CROSSROADS OF A NEW VISION OF THE 21<sup>ST</sup>-CENTURY WORLD**

In the age of new technologies the public libraries of Montreal must develop expertise as information centers and an essential source of development of knowledge for the community. The libraries will be the principal site of knowledge sharing and training by offering new services outside the wall as access at a distance to collections and electronic documents, virtual and electronic reference and access to outside resources. Also, by the hybrid model of libraries, the challenge will be to preserve the diversity and variety of collections of traditional libraries and to include in the new orientations a profile of services more focused on the age of information and the development of knowledge.

# Consolidation Plan, Scorecard and Standardization

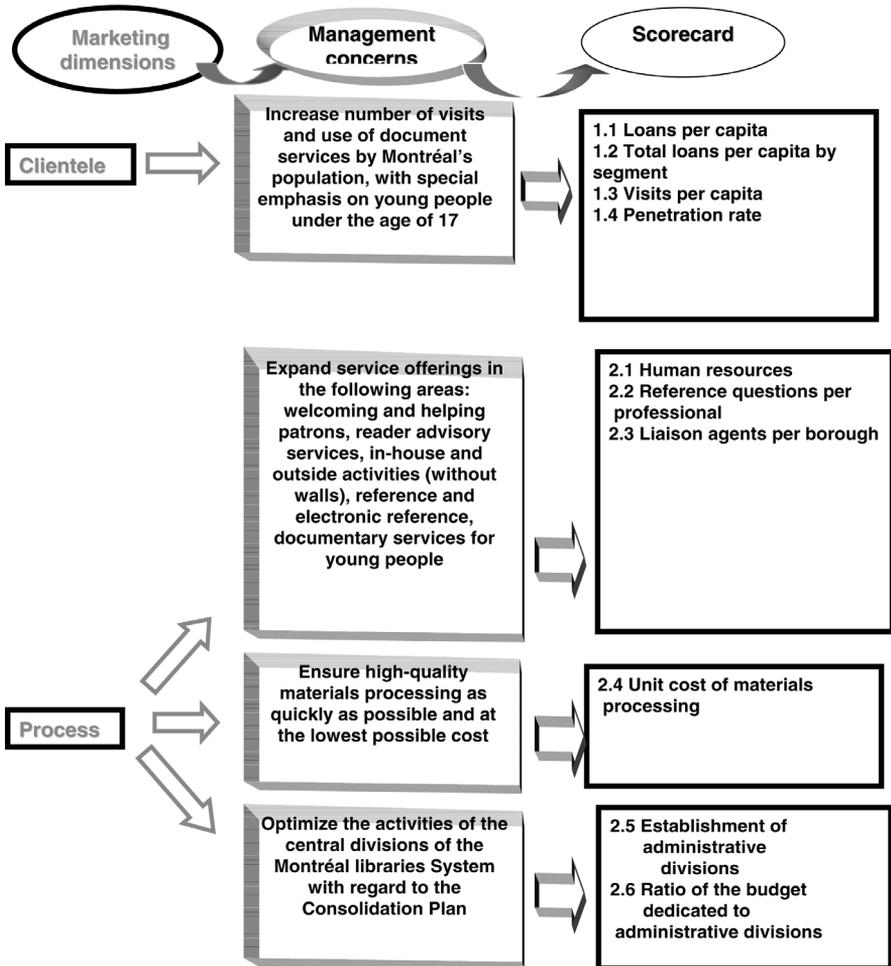


Figure 3a: Consolidation Plan and Balanced Scorecard

The new Framework by a strategic plan provides new orientations including the settlement and realisation of the Consolidation Plan and a development plan of new services based on a new integrated standardization program and performance evaluation indicators process.

# Consolidation Plan, Scorecard and Standardization

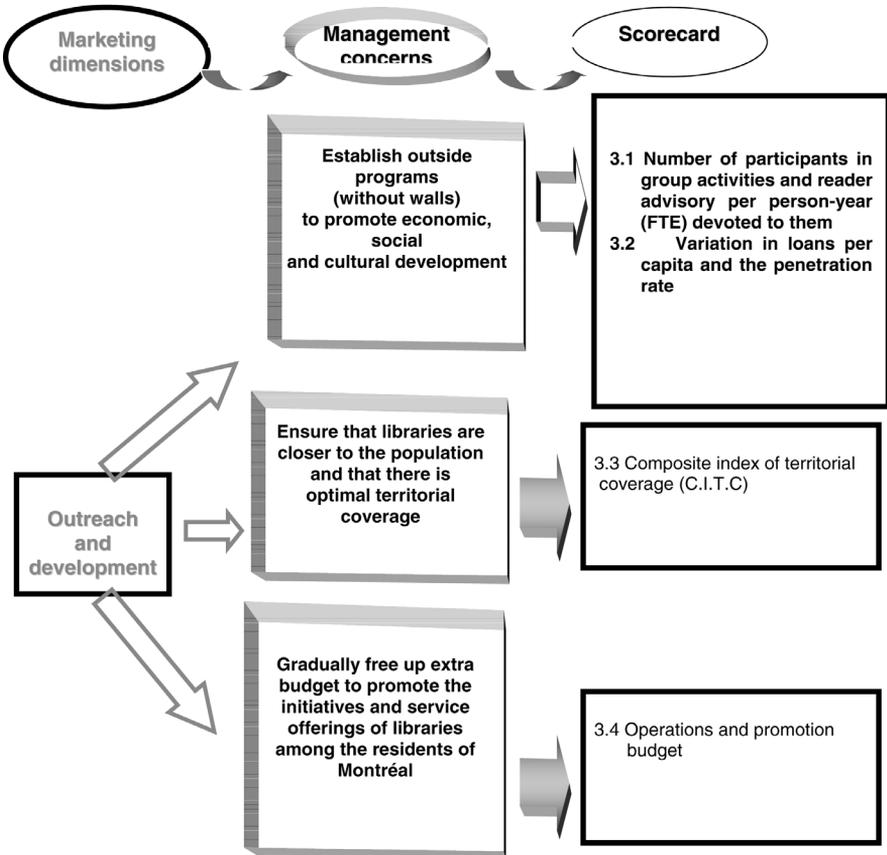


Figure 3b: Consolidation Plan and Balanced Scorecard

This new vision for 21<sup>st</sup>-century world means 7 strategic initiatives:

- New outreach and mediation programs (supporting more social inclusion and knowledge development);
- Multi-level branches as satellite service points, resources libraries and proximity services;
- New partnership with other library systems;

# Consolidation Plan, Scoreboard and Standardization

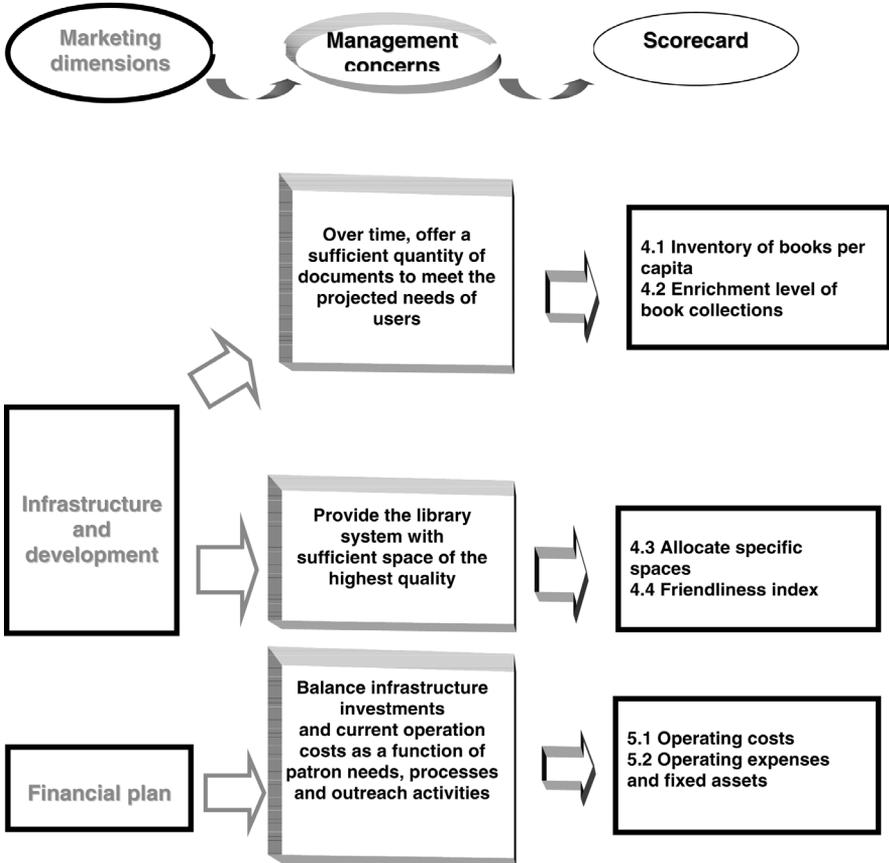


Figure 3c: Consolidation Plan and Balanced Scorecard

- Creative design facilitating the new library areas to create specific spaces for new knowledge development programs;
- Appropriate distribution of spaces to new interests and skills of specific clients as children, teenagers, baby boomer generation;
- Information broker, knowledge diffusing manager, electronic information editor as new role of public libraries;
- Development of new competencies and skills by new staffing models and specific professional development programs.

The new Framework proposes a transverse approach in combining to these three strategic axes:

- Ensure Montreal's population has access to high-quality service
- Increase readership and library visits among people under 17 years of age
- Strengthen library use as a tool for integration and social development

Also, the settlement of the Framework is based on ten specific objectives or management concerns as illustrated and more than 40 minimal services or quality standards related to ten areas of standardization. These standards will support accurate strategies and selected initiatives according to the mission of a public library services in a 21<sup>st</sup>-century world.

On strategic level, according to the orientations of this framework, 31 core measures are selected and submitted to a Balanced-scorecard model as described in next section.

## **PROPOSED BALANCED SCORECARD MODEL**

The selection of performance measures included in the Strategic Balanced Scorecard was determined and limited by 20 comparative graphic presentations of 31 measures and presented on one page (see appendix).

- CLIENTELE: 6 performance measures
- PROCESS: 10 performance measures
- OUTREACH AND DEVELOPMENT: 6 performance measures
- INFRASTRUCTURE AND DEVELOPMENT: 5 performance measures
- FINANCIAL PLAN: 4 performance measures

Six other performance measures are not included in the present graphics (PROCESS: 1; OUTREACH AND DEVELOPMENT: 1; INFRASTRUCTURE AND DEVELOPMENT: 2 and FINANCIAL PLAN: 2). The general model consists of estimating the performance indicator for each management concern, as a function of targets (expected outputs according to reasonable progressive timetable) or standards. Three Alert indicators will be determined: green signal light – achievable target; yellow signal light – challenge to face, and red signal light – reverse trend. They should help us to take a decision for more complete analysis or for immediate action to upgrade the investments or to adapt some initiatives.

Also it is important to mention, the expected outputs and targets mentioned in graphical figures of present Balanced Scorecard Model are not definitive and have to be considered temporary figures. These expected and updated outputs will be estimated and based later on results of benchmark studies with Canadian public li-

raries serving 500,000 residents and more and on other recognized models of standardization.

### **Multi-level Predictions model (library uses indicators)**

Effectively, the expected outputs and targets for library uses are based on the results of the application of a multi-level prediction model.

The hypothesis of the first level of comparative analysis is to staff the service points of each borough of Montreal at the level of the equivalent mean per inhabitants level of human resources available per branch in 8 Canadian public libraries systems serving 500,000 residents. There is large probability that we can attain a comparable library uses ratio as circulation per capita. Some conditions will be required to optimize the distribution of staff in public services by reducing the human resources in multiple cataloguing and processing units, to develop new virtual and electronic reference services, to increase opening hours substantially and to initiate more outreach and without-walls mediation programs.

The second hypothesis of the benchmarking approach is to increase and upgrade holdings of the collection of books to 3 books per inhabitants, i.e. to the high-level of resources available in the same Canadian public library systems. There is large probability that we can offer a comparable quality of documentary services.

The second level of the prediction model is based on the high Pearson correlation factors of library uses indicators as circulation: number of physical entries (physical visits), active borrowers and reference questions answered with staffing and holding. Our correlation analysis is based on data for 44 service points during the period 2002–2006 for each month; it could be considered as a representative sample. The analysis has indicated the library uses as circulation is more affected by variation of human resources (Pearson correlation of 0.888) than holding of circulated documents (Pearson factor of 0.872) with high accurate rate. Regarding these high correlations, we proceeded to a regression analysis to determine the specific impacts of these two dependent variables.

Our model, based on the combined linear regression analysis of correlations with the progressive increasing of human and documentary resources to the targets of equivalent mean of resources attributed by 8 Canadian public libraries systems (benchmark sample), will determine the targets in terms of circulation and visits per inhabitants. Also, it is possible to estimate the potential market penetration rate and rotation or turn-over rate. These performance indicators and the level of standardizing process improving by this model are submitted to a balanced-scorecard report issued periodically. Our benchmarking includes an adjustment factor for the distribution of staff in cataloguing and processing unit and public services. The cataloguing and processing activities are more centralised in other large Canadian library services and we consider an adjustment factor. The cataloguing and processing activities in our library system will be centralised in short term at a level 80 / 20 (80 % centralised, 20 % will be processed by boroughs). It is in part more decentralised than in other Canadian libraries but less than the present situation.

## Clientele

The first management concern, ‘Increase number of visits and use of document services with special emphasis on young people’ will be evaluated in terms of:

- Circulation per capita (loans per capita) – expected outputs according to benchmarking studies with the 8 largest Canadian public libraries serving 500,000 residents and more for 2009, 2011 and 2014
- Circulation per capita by segments (Monographs and multimedia) – same comparative timetable
- Visits per capita – same comparative timetable
- Penetration rate (market penetration rate) by age group – expected outputs according to benchmarking studies for 2011 and 2014

for the present year (2006), distance to previous year (2005) and % of gap with next target year. (Figure 4)

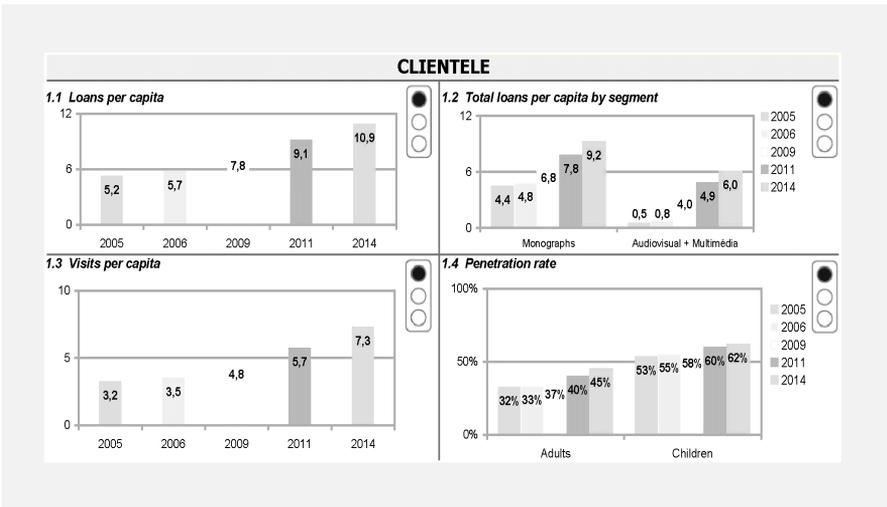


Figure 4: Clientele evaluation

## Process

The second management concern, ‘Expand services offerings in the areas of welcoming and helping patrons; reader advisory services; in-house and outside activities (mediation and outreach – without walls); reference and electronic reference; and documentary services for young people’ will be evaluated in terms of:

- Ratio of professional and customer-services employees per capita – in comparison with standard for these areas

- Number of reference questions answered / reference professionals as expected for 2009, 2011 and 2014, related to previous indicators of uses concerning the Clientele dimension as evaluated for the present year, distance to previous year and % of gap with next target year
- Number of liaison agents per borough in comparison with standard provided for 2011 and 2014

The third management concern, on technical services units ('Ensure high-quality materials processing as quickly as possible at the lowest possible cost') will be evaluated in terms of:

- Unit cost of materials processing in comparison with cost of previous year and expected standard cost provided for 2009, 2011 and 2014
- Cost of item processing per hour or unit measure for time required to deliver

Finally, the fourth management concern, 'Optimize the activities of Central divisions with regard to the Consolidation Plan', will be evaluated in terms of:

- Number of employees in the Central divisions (systems, evaluation and planning and development of programs) in relation to the boroughs in comparison with the standard
- standard per capita portion of the budget set aside for the planning and development of new programs and services in comparison with required standard

These are illustrated graphically in Figure 5.

### **Outreach and development**

The fifth management concern, relating to the marketing dimension 'Outreach and development: Establish outside programs to promote economic, social inclusion and cultural development' will be evaluated in terms of:

- Number of participants in organized and reader advisory activities per staff in comparison with expected participants per standard required staff
- Number of organized activities carried out / staff member dedicated to these activities in comparison to projected number of activities / per standard number of staff dedicated
- Level of loans per capita and penetration rate in target geographic area according to projected growth of level of loans per capita and penetration rate in comparison with previous year and present year
- Number of activities per week within the educational community and extra-mural activities

The next management concern, 'Ensure that libraries are closer to the population and that there is optimal territorial coverage' will be evaluated in terms of:

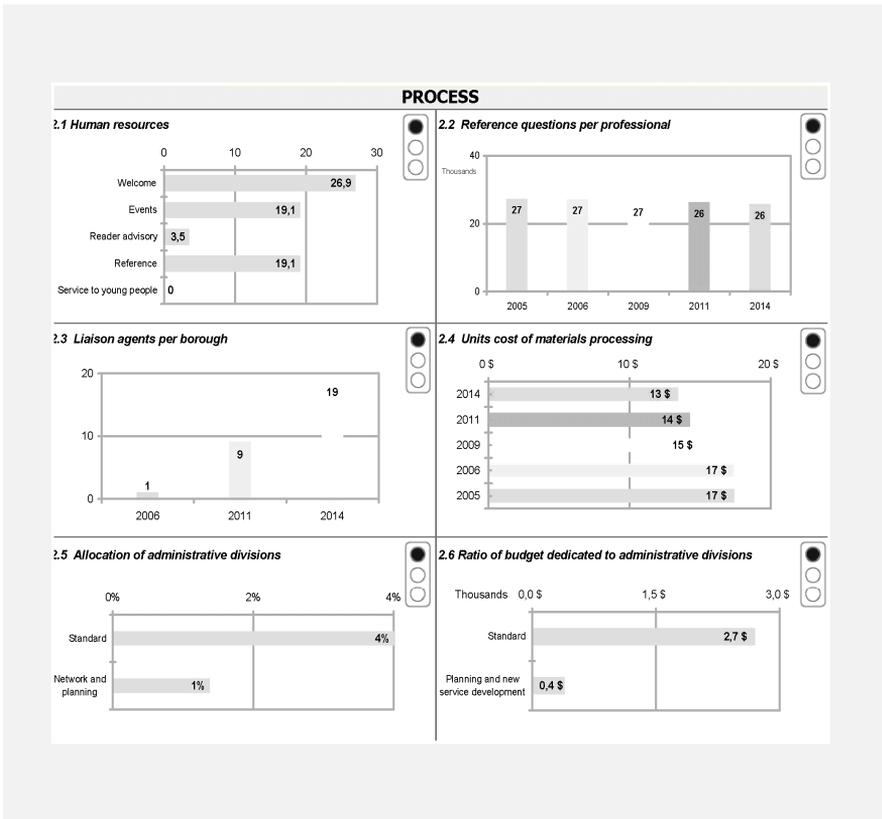


Figure 5: Process evaluation

- Composite index of territorial coverage (CITC), cumulative and standardized as a function of the variable radius of area covered (new developed model of standardized indicator as we will present later), population density, migration of users between boroughs, the distance between service points and other factors in comparison with projected CITC standard indicator

and the seventh management concern, ‘Gradually free up extra budget to promote the initiatives and service offerings of libraries among the residents of Montreal’ will be evaluated in terms of:

- Portion of Budget dedicated to promotion / overall operating Budget and by borough
- Portion of Promotion Budget dedicated to initiatives / overall promotion budget and by borough
- in comparison with actual and projected target year

These are illustrated graphically in Figure 6.

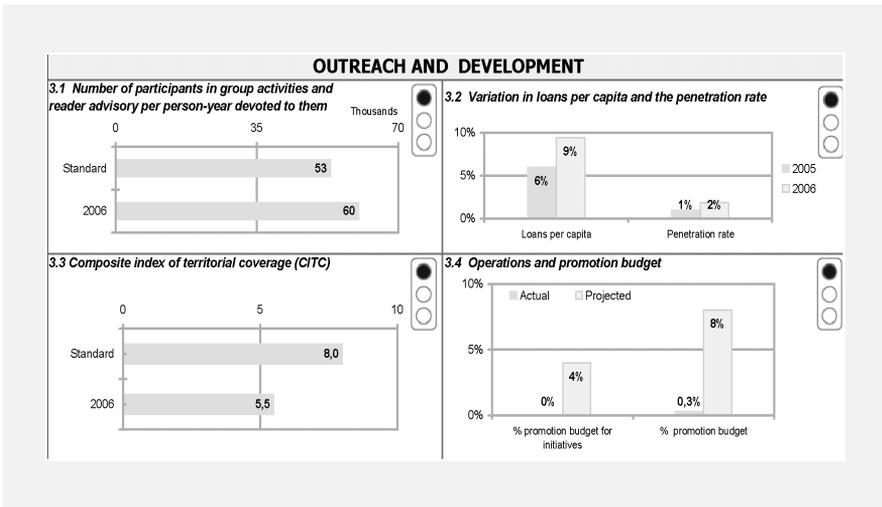


Figure 6: Outreach and development evaluation

## Infrastructure and development

The first management concern (number 8) in regard with infrastructures ‘*Over time, offer a sufficient quantity of documents to meet the projected needs of users*’ will be evaluated in terms of:

- Number of books per capita on an overall basis and by borough in comparison with projected minimum standard of 3.0 books per capita to be progressively attained from present year (2006) until 2014
- Quantities of other forms of library materials on an overall basis and by borough in comparison with standard projected quantities required of other forms of library materials to be detailed
- Inventory (holding) by materials segments, on an overall basis and by borough, as a function of the Consolidation Plan
- Book collections enrichment rate in respect with the inventory (holding), on an overall basis and by borough, in comparison with standardized book collections enrichment rate in respect with the standard inventory
- Rotation rate (or turnover rate) of the general circulated monograph collection and specific collections, on an overall basis and by borough, in comparison with standardized projected rotation rate of the general circulated monograph collection and specific collections estimated according to expected outputs related to the Clientele dimension.

The management concern number 9, ‘Provide the library system with sufficient space of the highest quality’ will be evaluated in terms of:

- Deficit in required space per 1,000 residents per borough in comparison with projected standard equivalent to 57,5 m<sup>2</sup> / 1,000 residents per borough, related to mean space per 1,000 residents of 8 large Canadian public libraries serving 500,000 residents and more
- Space planned for organized activities (animation and mediation – outreach) and reference from present year until 2014, graphical presentation non presented
- Friendliness index (to be defined) in terms of number of libraries and service points, on an overall basis and by borough in comparison with standard projected friendliness index to be attained from present year until 2014.

These are illustrated graphically in Figure 7.

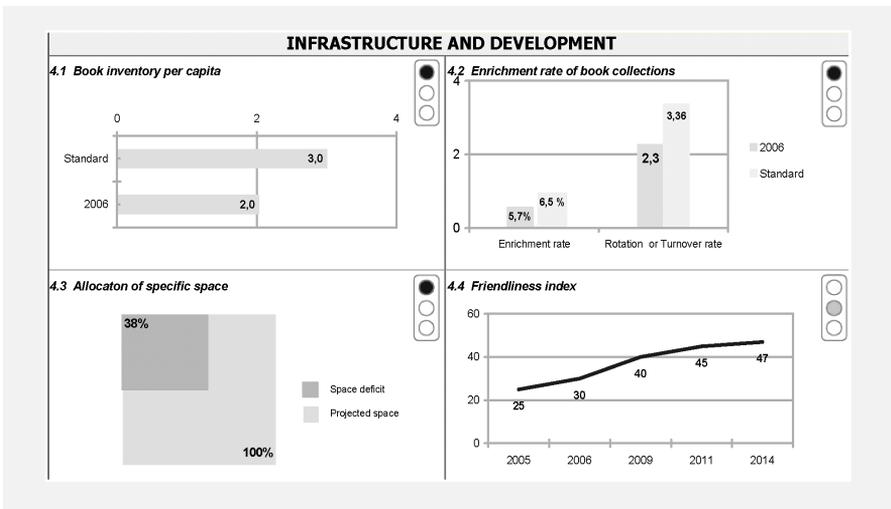


Figure 7: Infrastructure and development evaluation

## Financial plan

The last management concern (number 10), 'Balance infrastructure investments and current operating costs as a function of patron needs, processes and outreach activities according to the Consolidation Plan timetable' will be evaluated in terms of:

- Costs per number of loans in comparison with projected costs in function to expected loans
- Costs per number of visits in comparison with projected costs in function to expected visits
- Costs per number of residents in comparison with projected costs

If the deviation is negative, it must not surpass 5 % of the borough trend.

- Additional operating expenses for the overall Consolidation Plan and by borough in comparison with expected additional operating costs in function with provided timetable. Not included in present graphics
- Growth rate of the extra investments and operating budgets according to the schedule for target years 2009, 2011 and 2014
- Assets anticipated for the overall three-year assets plan and the plan for each borough in comparison with fixed assets. Not included in present graphics

These are illustrated graphically in Figure 8.

In the proposed Balanced Scorecard, related measures such as ‘Loans per capita’, ‘Percentage of the target population reached’ and ‘Collection turnover’ are well identified by appropriate graphic analysis for both categories of the Balanced Scorecard. It cannot replace any analysis but it will alert us to potential sources of problems. Also, the impacts of financial support and promotion on output performance measures are integrated into the Balanced Scorecard Model. So, the liaison between management concerns associated to distinctive dimensions is taken into consideration by our Balanced Scorecard Model.

For example, if Collections rotation rate is very high and Loans per capita is low or decreasing, we have to consider the results of related measures; and if the investments are relatively high or in increasing trend, we have to proceed to some other analysis to determine the sources of problems, as the relevance or consistency of some initiatives.

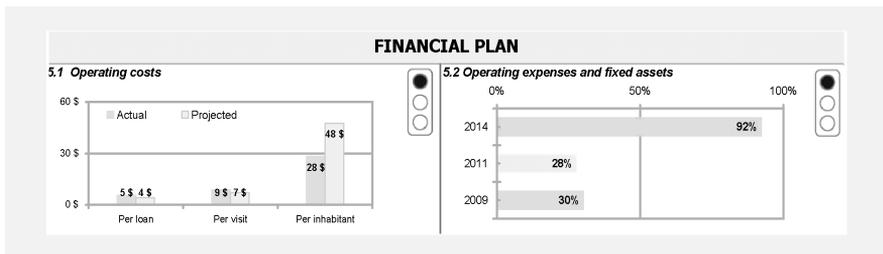


Figure 8: Financial plan evaluation

These initiatives are a means of achieving operational objectives and the targets that define them. Here is a selection of targets:

- Develop the knowledge portal
- Introduce new cultural products
- Develop activities that are strong attractions, in harmony with the values of identified groups
- Adapt the collections in light of the outreach activities to be developed
- Diversify the human resources in libraries

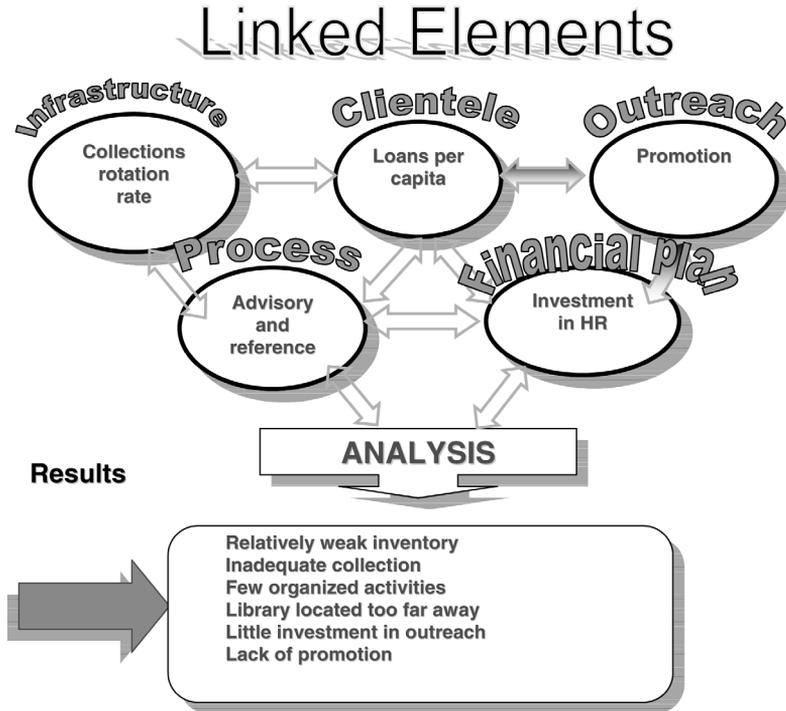


Figure 9: Linked elements

## HIERARCHICAL LEVELS OF THE SCORECARD (CASCADE)

By the same transverse approach, we proceeded to the ‘cascading’ process of developing Balanced Scorecards in relation to the decentralised unit services, the branches or service points administrated by boroughs.

It is very important to consider the performance measures identified in Strategic Balanced Scorecard as attributed to the results of local uses, resources invested by boroughs and general trends of boroughs.

While some of the objectives and measures used may be the same throughout the entire organization, in most cases lower-level Scorecards include items reflecting the specific opportunities and challenges faced at those levels.

But, considering the important decentralization of Montreal Public library System on responsibilities level, and to provide a form of imputability of boroughs to the Consolidation Plan settlement process based on progressive attainment of minimal standards (with performance), it is imperative that the indicators in the Operational Balanced Scorecard model are determined and related to key objectives and measures of success provided by the highest-level (Strategic) Balanced Scorecard.

Some more detailed measures and trend comparisons of boroughs and service points predetermined by comparisons criteria will insert some relevant ranking tables to facilitate the analysis and evaluation (justification) of the performance of service points in some areas for local managers.

Concerning the Tactical level, some measures to facilitate the evaluation of results or the limits of the capacity of the organization – as for example loans per employees – are included in Operational Balanced Scorecard. Others more strategic measures were associated and included in the Strategic Scorecard. We avoid creating a third and distinctive category of Balanced Scorecard.

In accordance with the Strategic Balanced Scorecard we illustrate a proposed parallel Operational Balanced Scorecard for the first marketing dimension Clientele. We present only the first dimension but a cascading process was conducted for the five dimensions. The model will be submitted to Committee of Minimal standards and to boroughs during the coming months.

<b>Illustration of the Cascade Effect of Hierarchical Levels on a Scorecard</b>	
Strategic	Operational
1.1 Sum of document loans and downloaded items	1.1 Sum of document loans and downloaded items Distribution of borough libraries Growth of equivalent libraries Distribution of loans per capita among young people Rate of loans per borrower (active)
1.2 Sum of loans per capita by segment	1.2 Sum of all loans per capita by segment Distribution of borough libraries
1.3 Visits per capita	1.3 Visits per capita Distribution of borough libraries Growth of equivalent libraries
1.4 Overall penetration rate and by age group	1.4 Overall penetration rate and by age group Penetration rate by borough and age group
	1.5 Number of opening hours ● Distribution of borough libraries ● Change in outside loans ● Change in total outside loans ● Relative share of additional loans ● Change in number of new members ● Change in number of visits ● Average hourly loans 1.6 Number of active borrowers ● Distribution of borough libraries 1.7 Percentage satisfaction rate 1.8 Number of times documents are consulted on-site

We expected some measures will be useful tools for managers to have a better follow-up of impacts of some investments as for the increase of opening hours. They could be related to results detected by Strategic Balanced Scorecard but not directly.

Some other measures could justify with more details the level of results for the overall basis as defined in Strategic Balanced Scorecard as a percentage of satisfaction.

Finally, by predetermined comparisons by boroughs or equivalent service points (as ranking tables), these measures will alert local managers to some problems, weaknesses or trends and force them to be imputable to the Centralised Direction of Montreal Public Libraries System and support the consolidation settlement process. Also, considering large disparities for some boroughs, these more specific measures will be imperative for us to understand some results.

In conclusion, with the Operational Balanced Scorecard, more detailed measures were determined in order to facilitate the comparison of branches and boroughs, to equivalent units or to tendencies by following the Public Libraries System. These last measures will be associated to the operational level and will have an impact on the responsibilities of borough's library services managers regarding progress toward the provided target outputs. The timetable was determined for some target outputs. Finally, the evaluation of the contributions of branches and boroughs, by specific investments and initiatives to strategies related to the Consolidation Plan will be represented by the Operational Balanced Scorecard. The output measures will be submitted to comparative analysis with specific socio-economic factors and will be improved by the outcomes evaluation process of all service points.

As explained in the previous presentation of the Operational Balanced Scorecard, we provide predetermined ranking tables to facilitate comparisons of trends followed by some boroughs or by equivalent service points located in independent boroughs. This cascading approach will create another linkage with performance indicators of the Strategic Balanced Scorecard. These detailed measures were determined in order to facilitate the comparison of branches and boroughs, to equivalent units or to tendencies by following the Public Libraries System. Also, these measures will be associated to the operational level and will have an impact on the responsibilities of borough's library services managers regarding progress toward the provided target outputs. The timetable was determined for some target outputs.

Finally, the drilling process into the operational Scorecard offer another option to qualify the trends followed by comparable service points or by boroughs in comparison with the overall Library System. In this way we determine some specific targets and quality criteria but essential and related to strategic objectives for Consolidation Plan settlement. For example, see the present Core sample:

- Position of boroughs concerning loans per capita – maximum deviation of 5 %;

<b>Drilling into the operational scorecard : A core sample</b>	
Performance measures	Targets
1.1 Sum of document loans and downloaded items per capita <ul style="list-style-type: none"> <li>• actual data</li> <li>• % change compared to preceding year</li> <li>• cumulative % change compared to next target</li> <li>• Distribution of borough libraries</li> </ul>	If there is negative deviation, it must not surpass 5% of the borough trend
<ul style="list-style-type: none"> <li>• actual data</li> <li>• % change</li> <li>• cumulative % change compared to next target</li> <li>• Growth of equivalent libraries</li> <li>• % change compared to preceding year</li> <li>• cumulative % change compared to 2010</li> </ul>	Median of equivalent libraries
1.4 Overall penetration rate and by age group <ul style="list-style-type: none"> <li>• actual data</li> <li>• % change compared to preceding year</li> <li>• cumulative % change compared to next target</li> <li>• Penetration rate by borough and by age group</li> <li>• actual data</li> </ul>	Penetration rate by borough and age group over the next 5 years
<ul style="list-style-type: none"> <li>• % change compared to preceding year</li> <li>• cumulative % change compared to next target</li> </ul>	

- Growth of equivalent service points in term of circulation relatively to next target – Median of equivalent libraries;
- Penetration rate by borough and by age group – Penetration rate by borough and by age group over the next 5 years.

By the way, the cascading process and drilling options with inserted comparisons of boroughs or equivalent service points will create a better linkage between Strategic (highest) Balanced Scorecard with Operational Balanced Scorecard and facilitate the achievement of standards and targets of the Consolidation Plan.

Also, our Balanced Scorecard model will be an excellent tool for monitoring of laggards and vulnerable boroughs with lack of resources or low performance with socio-demographic factors extremely strategic in regard to the Consolidation Plan. (Figure 10)

As mentioned previously, we anticipate inserting for some targets of the Operational Balanced Scorecard comparisons of deviation to some average or median performance measures estimated for families of equivalent libraries or boroughs according to relevant criteria for management concerns and marketing dimensions. These equivalence criteria could be of the order of common demographic, economic or social characteristics of the population served in the concerned area or of the equivalent rate of uses (loans) or size of resources (human resources or documentation) or types of clientele or services provided (as for ethnic populations,

teens, young people with problems of school dropout). (See table ‘Families of Equivalent Libraries’)

<b>Families of equivalent Libraries</b>	
Snapshot <ul style="list-style-type: none"> <li>• demographic</li> <li>• economic</li> <li>• social</li> </ul>	Equivalence criteria <ul style="list-style-type: none"> <li>• Geographic location</li> <li>• Average household income</li> <li>• Unemployment rate</li> <li>• Proportion of single-parent families</li> <li>• Proportion of immigrants in the population</li> <li>• Proportion of 15 to 24 year olds who do not attend school</li> <li>• Adults without high school graduation</li> <li>• Adults with university degree</li> </ul>
Library use	Loans Human resources and documentation Services provided Types of clientele

### Borough Evaluation Measures

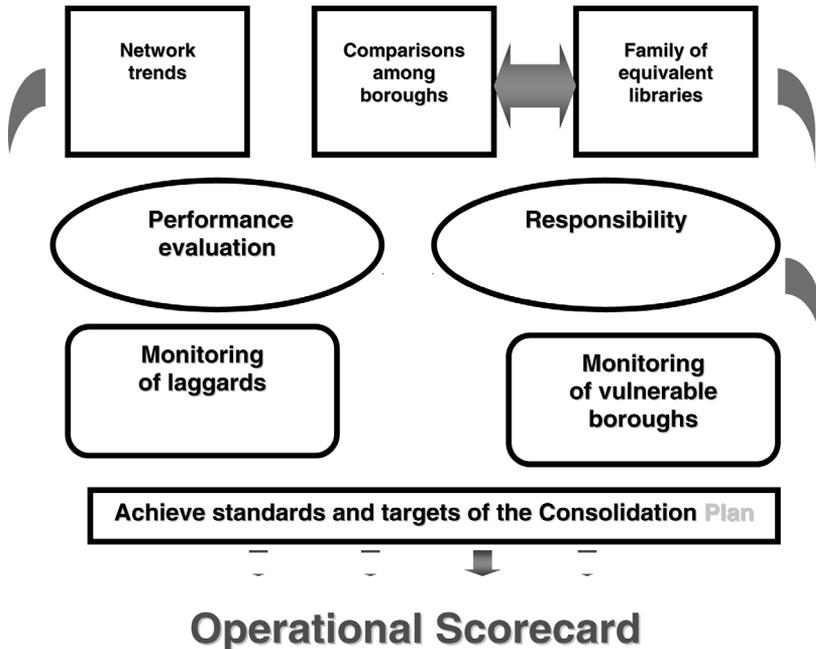


Figure 10: Borough evaluation measures

## STANDARDS ADAPTED TO DISPARITIES AMONG MONTREAL'S BOROUGHS

For Montreal, it is imperative to provide measures to allow comparison of branches and boroughs as some results of the Assessment indicate to us large disparities among boroughs on demographic and economic factors of the population; and for other factors as school levels, we could find opposite trends. (Figure 11)

But the same boroughs present important lack of human and documentary resources in comparison with Canadian public libraries serving 500,000 residents and more. Approximatively, less than 12 % of Montrealers could use equivalent of 80 % of resources offered by large Canadian Public libraries, in terms of collections, professional support by sufficient qualified staff and space.

The Balanced Scorecard Model as presented was proposed before the completion of all simulations and benchmark studies required to determine quality standards. This approach will permit the focus to be on the main minimal service standards and performance measures required to produce the Consolidation Plan. The interdependence of some performance measures for processes and scope of services with target outputs related to clientele will facilitate the determination of optimal resource uses, including collection turnover. In consideration with disparities of boroughs, decentralized responsibility in regard with libraries and strategic axes of Consolidation Plan, we addressed these areas of standardization.

### DISPARITIES AMONG BOROUGHS

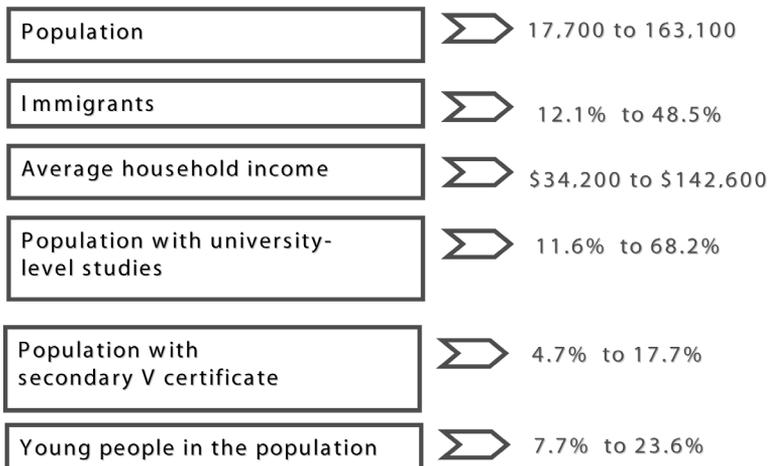
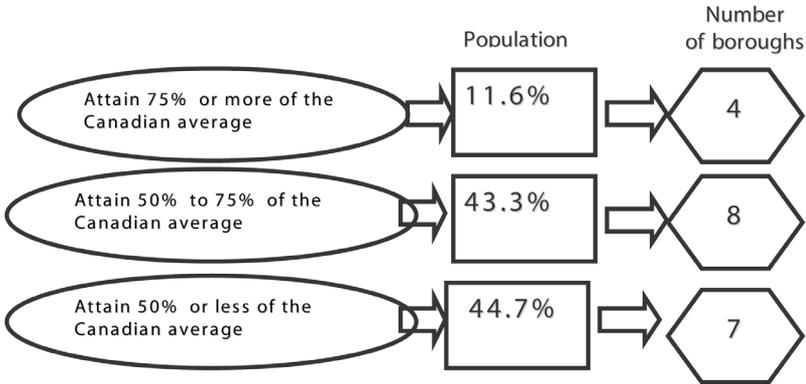


Figure 11a: Disparities among Boroughs: Overview

## DISPARITIES AMONG BOROUGHS HUMAN RESOURCES

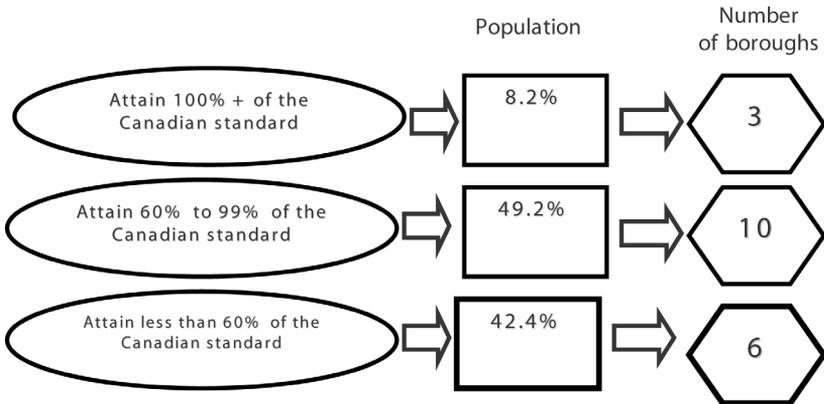


**15 of 19 boroughs do not attain 75% of the Canadian average for cities with 500,000+ residents, that is 88% of the population.**

Standard:  
0.86 librarians/6,000 residents  
1.43 employees/2,000 residents

Figure 11b: Disparities among Boroughs: Human Resources

## DISPARITIES AMONG BOROUGHS SPACE

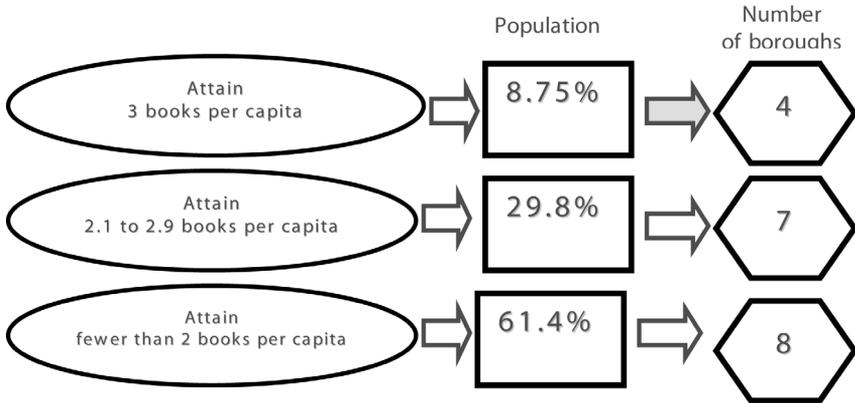


**16 of 19 boroughs do not attain the Canadian average for cities with 500,000+ residents, that is 91.7% of the population.**

Standard: 57.5 m<sup>2</sup>/1,000 residents

Figure 11c: Disparities among Boroughs: Space

## DISPARITIES AMONG BOROUGHES BOOK COLLECTIONS



**15 of 19 boroughs do not attain the target of 3 books per capita, that is 91.2% of the population.**

Standard: 3 books per capita

Figure 11d: Disparities among Boroughs: Book Collections

Some additional new minimal standards, proposed to support the Integrated Consolidation Planning Process at the Montréal Public Libraries System, were proposed as more appropriate quality parameters and performance measures for a large and urban public library system, including variable radius of space services and combined indicator of non-duplicated opening hours with aggregated opening hours per serving population:

- 10 Areas of Standardization
  - o Minimum space standard
  - o Criteria for location of service points and sub-branches
  - o Minimum opening hours
  - o Reduced deficit for building maintenance
  - o Universal loans and returns for the entire network
  - o Unified management information system for documents
  - o Access to library collections
  - o Axes for collections development along language lines
  - o Provision of human resources as a function of service levels, hours of opening, population to be served and reader advisory needs
  - o Services aimed at specific categories of users

- Montréal Standards Being Applied per Borough
  - o Service areas with variable radius (0.75 to 2.4 km)
    - migration of patrons
    - population density in an urban environment
  - o Opening hours
    - not double counted (62 hours) – non-duplicated opening hours
    - per 1,000 residents (92 hours) – aggregate opening hours
    - 50% of hours (not double counted) outside of business hours
    - 324 days, not double counted – non duplicated opening days
  - o Space: 57.5 m<sup>2</sup>/1,000 residents
  - o Staffing
    - 0.86 librarians/6,000 residents
    - 1.43 employees/2,000 residents

Besides, the Montreal territory is characterized by a marked variety in concentrations of population. For example, 50% of Montrealers live in just 7 boroughs. These 7 boroughs cover 33% of territory superficies on Montreal Island. According to Standards of Quebec, the population to be served should be localized inside of a radius of service equivalent to 1.5 km. (Figure 12)

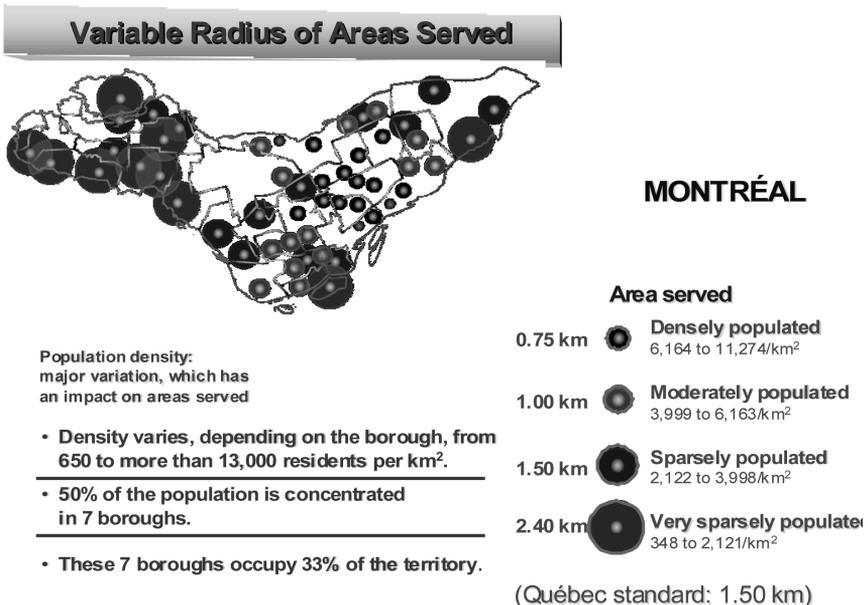


Figure 12: Variable Radius of Areas Served

By this traditional approach with fixed dimension of radius of service, the concentration and overlap of radius of service, localized specifically in the center of the Island of Montreal, could be considered as overestimating service in relation to real needs. Some simulations were analysed to identify the real deficit of service points or library services on the territory.

The simulation of *radius of service* equivalent to 0.75 km for libraries localized in borough with a very large density of population should be probably more appropriate, illustrating the deficit in service points. Also, for boroughs with less density of population, the size of radius of service could be increased more than 1.5 km as recommended by *Standards of Quebec* as 2.0 or 2.4 for boroughs with weak density of population. This analysis will facilitate the determination of a basis for criteria of application of minimum standards as a function of proximity indicator, density of population, distance between neighbour libraries and socio-demographic characteristics of boroughs.

This approach is used to optimise the reduction of disparities in terms of population served. The new criteria of application of minimum standards based on density of population and other socio-demographic factors instead of served population is more appropriate and relevant with regard to a urbanized territory such as Montreal and opens new perspective levels of services and inter-boroughs cooperation.

This is one of the original and innovative standards used for planning spaces according to the Consolidation Plan and will be used to propose a new target concerning Territory coverage index as to be inserted in Strategic Balanced Scorecard.

## **MONTREAL STANDARDS BEING DEVELOPED**

- Human resources
  - o Welcome
  - o Reference
  - o Readers advisory
  - o Services for young people
  - o Cultural communities
  - o Outreach
- Service points
- Dilapidated buildings
- Friendly spaces
- Territorial coverage index
- Document resources
  - o Optimal rotation rates (as a function of outputs)
  - o Collections expansion index
  - o Document categories
  - o Enrichment rate

Some original performance measures and standards will be inserted in the Balanced Scorecard Model, including the Territorial Covering Indicator (depending on multiple dimensions, including population density, socio-demographic factors, distance between service points, and variable area radius model), and the Combined Performance measure on quality and user-friendliness of space areas will be developed.

## CONCLUSION: NEXT STEPS ...

In our next steps, according to the accurate strategies of the Framework, we will propose in September targets for the Clientele dimension according to results of benchmarking studies.

Also, standards concerning staffing and space area will be simulated with large Canadian public libraries and will be compared with other recognized models and practices in other parts of the world. This important step will permit us to simulate appropriate levels of services for boroughs of Montreal and to propose a multi-level standardization plan.

When these results are examined and validated by the Committee of minimal standards, the standardization process as described will be completed before the end of next year. This process will include a definition of strategies and concepts of focused functionalities such as *welcome services*, *mobile libraries*, *service points*, *reference levels*, *outreach programs* according to strategic axes of the Consolidation Plan.

A specific Consolidation Plan for library services to ethnic populations, with a more integrated approach, including new standards, will be completed in parallel.

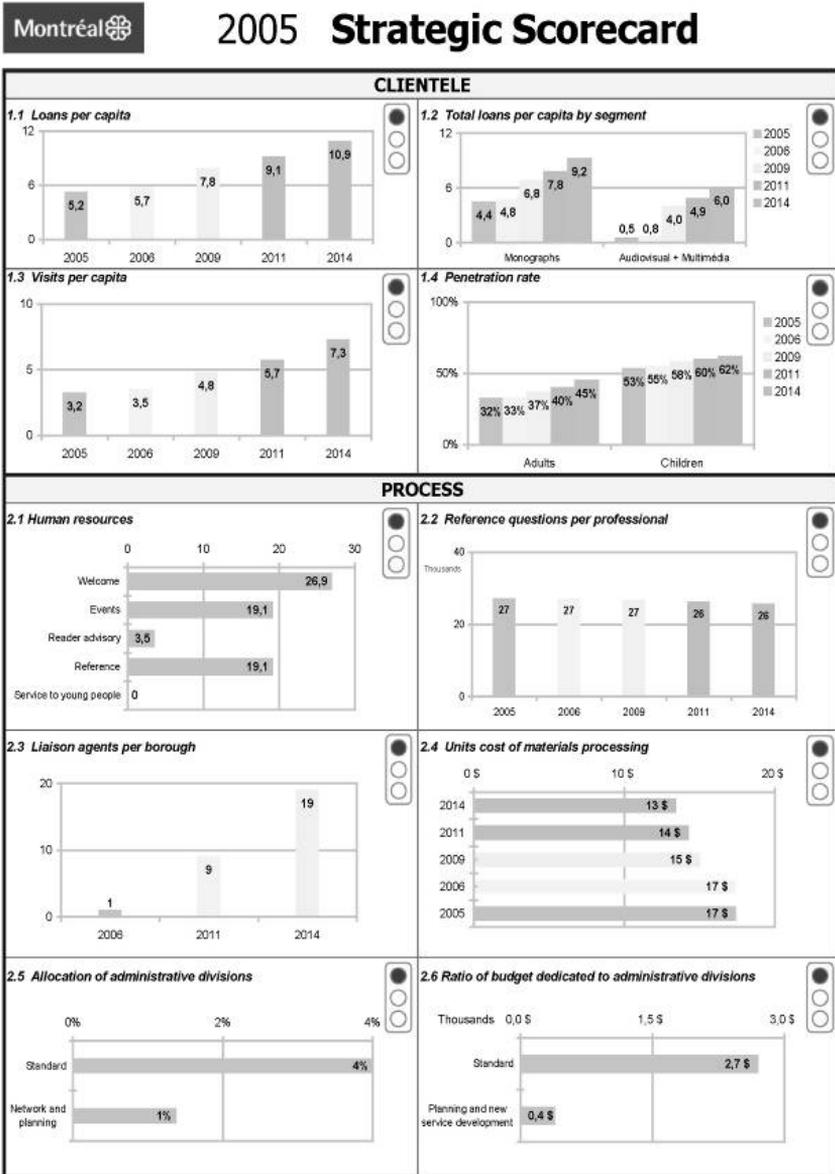
Finally, we will begin in Fall 2008 and complete in 2009 the required works to reorganize the management information. Also, we will introduce progressively new integrated strategic and operational systems (included data warehouse management system), essential tools to realize appropriate and relevant management information system for a library network of the size of Montreal public libraries system.

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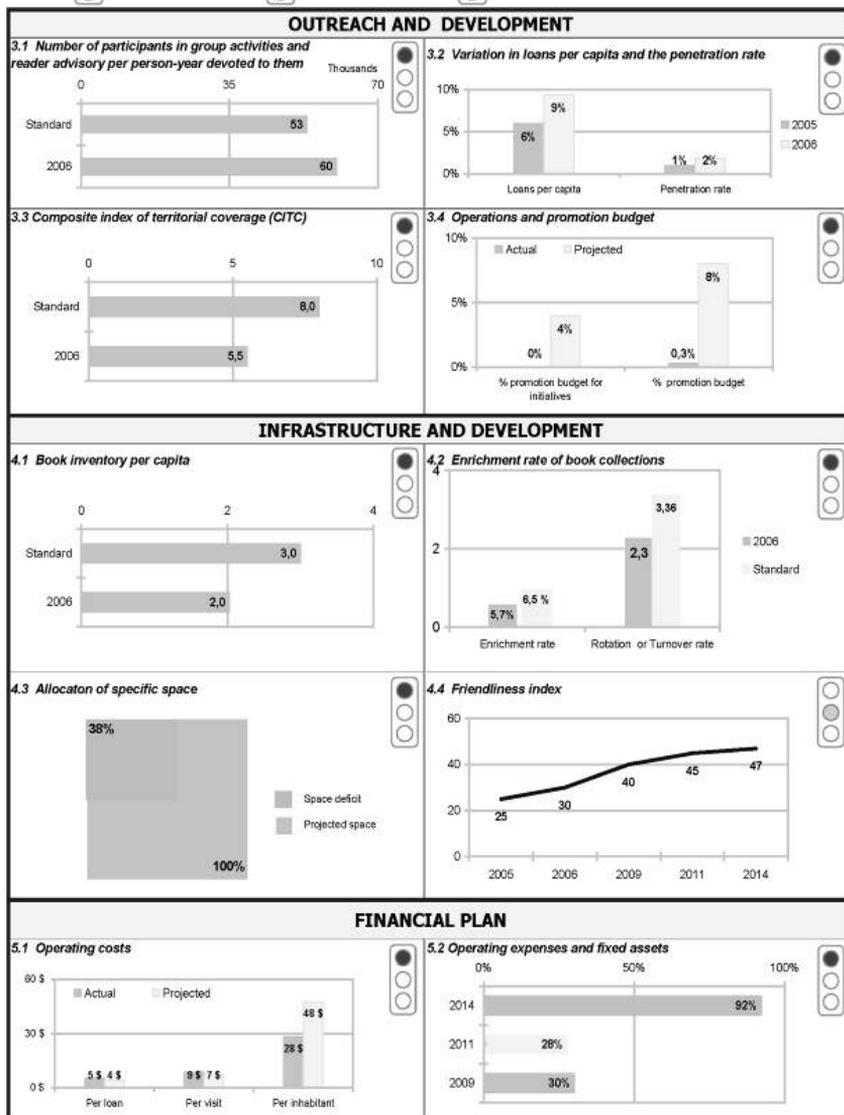
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# APPENDIX: PROPOSED BALANCED SCORECARD – SELECTION OF INDICATORS



Achievable target
  Challenge to face
  Reverse trend
 Vision 2015



# **BIX – THE BIBLIOTHEKSINDEX: STATISTICAL BENCHMARKING IN GERMAN PUBLIC LIBRARIES**

Sebastian Mundt, Professor for Media Management and Information Services, Stuttgart Media University

## **ABSTRACT**

*85 academic libraries from four countries and more than 170 public libraries have participated in the 2008 iteration of the Bibliotheksindex (BIX), a voluntary multi-level strategic benchmarking/ranking hosted and organized by the German Library Foundation.*

*The start of systematic benchmarking in German libraries dates back into the early 1990s; initial projects were substantially driven by the Bertelsmann Foundation. Findings from these early initiatives resulted in the design of a nationwide statistical benchmarking instrument for public libraries which was established in 1999. Based on evidence from benchmarking and ranking initiatives on an international scale, an instrument for academic libraries was developed in 2004. Following the conceptual principles of the “Balanced Scorecard” approach, the Index currently processes data from – depending on library type – 15 to 17 widely tested and communicable indicators in four strategic perspectives.*

*After providing an insight into the conceptual framework of the BIX, the paper pinpoints improvements in the set of indicators, discusses the perception and acceptance of the instrument among libraries and highlights perspectives for further development.*

## **DEVELOPMENT**

German public libraries have a long tradition of measuring and comparing their performance. As one crucial stimulus for this tradition, Klug (2003) states a paper by Nick Moore in which he stressed the demand for ‘easily applied measures that can be implemented at relatively low cost by busy librarians’.

The first joint effort in testing, implementing and developing performance measures was marked in 1992 when the Bertelsmann Foundation initiated an extensive five year inter-library comparison study with 18 public libraries (Pröhl/Windau 1997a, 1997b). The project was based on the perception that inter-institutional comparisons could substitute the lack of competition in the public sector and be suitable as catalysts for continuous improvement. Based on the outcome of this pilot study, the Bertelsmann Foundation decided to launch, in partnership with the German Library Association (dbv), a consecutive project in order to introduce a nationwide benchmarking instrument for public libraries. The name chosen – BIX, a short form of Bibliotheksindex – bears a reference to DAX, the stock exchange

index that monitors the performance of the top 30 German enterprises. Through this analogy, the name illustrates that the instrument publishes a performance index for participating libraries in regular intervals. In 2002, the Bibliotheksindex was extended to cover academic libraries; their first ranking was published two years later. The project term officially ended in 2005. Managed by the newly founded Competence Network for Libraries (KNB), the Bibliotheksindex is continued as a cooperative activity on the participating libraries' account. Compared to other benchmarking and ranking initiatives on a national level, the annual publication of all results in print and electronic form remains a unique feature (Poll 2007).

## **MANAGEMENT AND SUPPORT STRUCTURE**

The KNB coordinates a complex network of partners with shared responsibilities in order to perform national and inter-regional tasks and duties for libraries. Regarding BIX, the KNB cooperates with the following partners:

- The Hochschulbibliothekszentrum Nordrhein-Westfalen (hbz) in Cologne, a regional library service centre which hosts the German Library Statistics (DBS) and the BIX database;
- the Institute for Applied Social Sciences (infas) in Bonn, a social research institute which originally constructed and validated the statistical instrument behind the BIX and nowadays compiles and processes the annual index scores;
- the Institute for Library Management, Evaluation and Organizational Development (BEO) at Stuttgart Media University which conducts the measurement of virtual library usage;
- B.I.T. Online, a German Library and Information Science journal whose editors publish the annual BIX magazine and
- the Bertelsmann Foundation in Gütersloh, the originator and driving force behind the BIX and its predecessors who nowadays acts as an affiliated consultant.

The strategic development is being supervised by a steering committee which represents funding bodies, professional associations and experts with a methodological and practical background.

## **PARTICIPATION**

All libraries participate is on a voluntary basis. Public libraries are grouped in five size categories according to population figures. The participation fee is about 180 Euros per year regardless of size.

In 2008, a total of 170 public libraries have taken part in the Bibliotheksindex. Since 2000, more than 300 public libraries have joined – more than half of them used the instrument at least every second year and 52 of them each year (Wimmer 2008). A selectivity analysis performed by infas in 2004 showed that those libraries participating in the Bibliotheksindex tend to perform significantly better than the average public library.

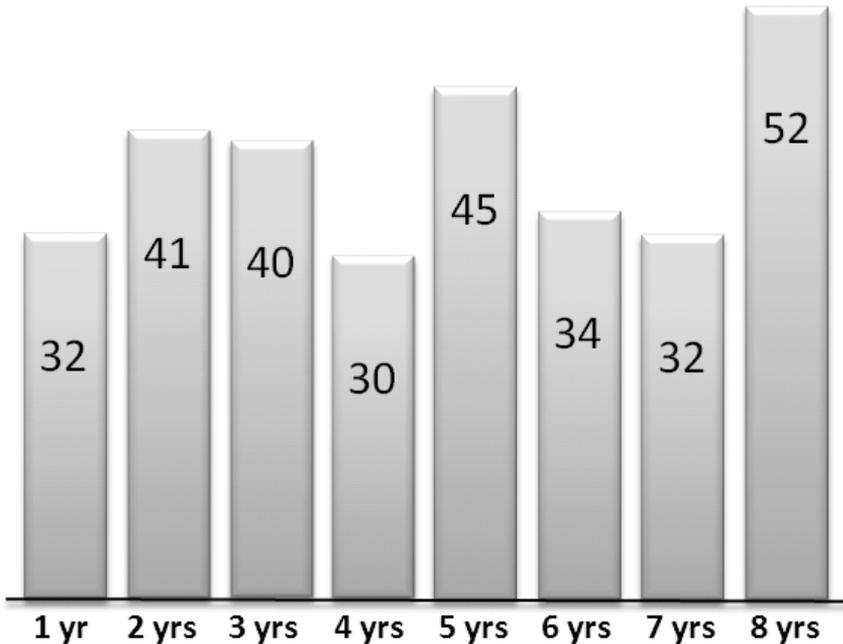


Figure 1: Frequency of participation (N = 308)

## THE BIX SCORECARD

The Bibliotheksindex is constructed as a multi-dimensional ranking; it assigns three to five indicators to each of the four target dimensions (see Figure 1):

- The ‘Resources/task fulfillment’ dimension asks what resources and infrastructure the library has at its disposal to provide services to users;
- the ‘Customer focus’ dimension shows to what extent the library services are used;
- the ‘Efficiency’ dimension shows to what degree the library provides its services cost-effectively;
- the ‘Development’ dimension asks if the library has sufficient potential for development; it replaced the former ‘Employee focus’ in 2008.

The selection of measures for public libraries was based on previous experience from the Bertelsmann projects. A secondary analysis of all statistical data and indicators was conducted by infas in order to identify those indicators which had the highest significance for the defined target dimensions. The choice of indicators was finalized in discussions with stakeholders.

Three constructional elements were regarded as essential:

- The aim was to develop a system which was based upon few measures and remained straightforward and manageable for library professionals and non-professionals alike; in fact, out of the 25 basic data which libraries need to report, only five have to be collected specifically for the Bibliotheksindex;
- the set of performance measures should provide qualitative management information at the strategic level rather than simple in- and output quantities or detailed information on specific services, e.g. compare the collection turnover for children's literature between several branch libraries. Following the principles of a Balanced Scorecard, the instrument should therefore be limited to a maximum of 15 to 20 core indicators in order to be presentable and communicable to funding institutions;
- The scorecard should be identical for libraries of the same type in order to allow and encourage comparisons, and should be focused on core library functions. While the scorecard was kept open for necessary updates and changes, the indicators should generally represent continuing services.

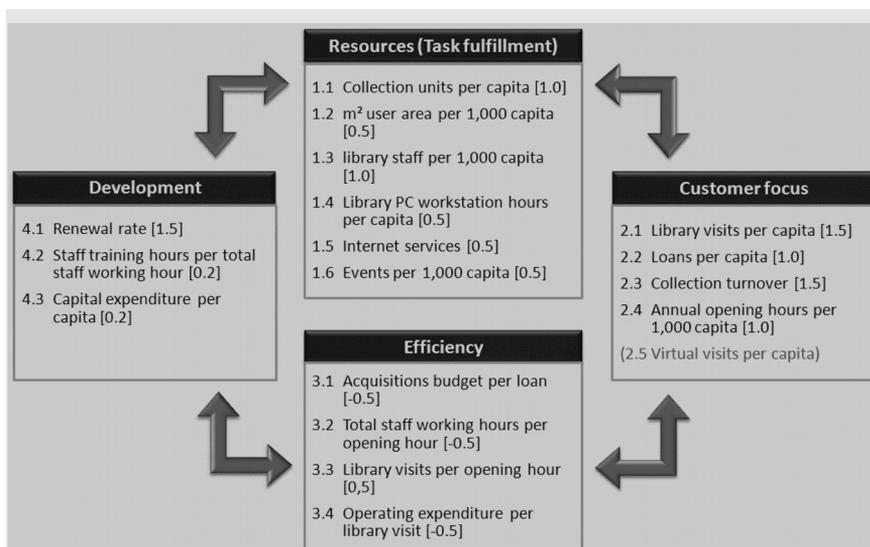


Figure 2: The BIX scorecard

The indicator scores of each library are normalized against the mean of the size category, then weighted and transformed into an index score (and rank) for each

dimension. In a second step, the four dimension scores are compiled into one overall index score. Finally, the libraries within each category are ranked against their overall and dimension index scores.

A data collection manual (BIX 2008) in German language has been published on the BIX website in order to support participants in collecting and reporting the data according to BIX standards, and to inform interested parties about the methodology and requirements of participation. Furthermore, as the ranking is highly competitive – it is used as an evidential basis for negotiations and quality management – the quality control of BIX data is carried out in an elaborate procedure involving up to seven steps.

From a statistical perspective, the indicator weights (in squared brackets, absolute values between 0.2 and 1.5) were derived from previous inter-library comparison data. In the first place, however, the weights represent political considerations: Indicators in the dimensions ‘Customer Focus’ and ‘Resources (task fulfilment)’ have been assigned a higher average weight, i.e. they are intended to affect the overall result to a higher extent than indicators in the target dimensions ‘Efficiency’ and ‘Development’. Negative weights indicate an indirect interrelation: in ‘Acquisitions budget per loan’, ‘Operating expenditure per library visit’ and ‘Total staff working hours per opening hour’, a lower score indicates better performance. The interpretation of ‘negative’ results, however, is not always unambiguous in general terms: A comparably low acquisitions budget per loan clearly points at a need for improvement but could also mean that the budget is at a comparably high level but too low to meet the high demand for the library’s collection.

In many cases, dimension ranks are very useful to highlight relative strengths and weaknesses. They always need to be interpreted in the overall context, however: A good efficiency rank might have its origins in below par resources which in turn might result in a poor customer focus rank. Reversely, a high rank in ‘Resources/Task fulfilment’ and ‘Customer focus’ is typically connected to a lower rank in ‘Efficiency’. For detailed comparisons, the actual scores are recommended because ranks may suggest differences that are not statistically significant and even improved indicator scores can result in a lower rank if the library cluster has changed its composition from one year to another.

Definitions and counting procedures are optimized and adjusted against relevant standards (e.g. ISO 2008) in routine intervals. Major revisions of the instrument are generally decided upon the results of a trial run. A few measures have not been integrated in the instrument yet due to persistent methodological issues – for example, financial indicators like a revenue-to-cost ratio or a measure on funds self-generated by the library are kept in ‘hold’ status because many libraries still have limited insight into their budgeting, and not all forms of fiscal accounting in libraries can be harmonized with each other.

Two performance indicators meet the increasing demand to measure the provision of virtual library services: The number of PC workstation hours per capita indicates the supply of technical infrastructure while the summation score ‘Internet

services' counts the existence of defined web-based services functions, e.g. a homepage, a Web OPAC and several other informative and interactive functions on a 7 point scale. For a new indicator 'virtual library visits per member of the population', a standardized pixel count is placed on representative pages of the participating libraries' websites. In lack of an overall measure for the use of the electronic collection, this measure indicates the usage of a library's web-based services. It has been introduced for academic libraries in 2007 and is currently being tested for public libraries. Furthermore, in order to meet the request for a customer satisfaction measure, a standardized, straightforward user survey is in the planning stage.

## **PUBLICITY**

The most visible and tangible result of the Bibliotheksindex is the BIX Magazine, a full colour periodical publication of 80+ pages with a circulation of 4.000 copies which is issued once a year in June. A substantial part of the circulation is deliberately sent or handed out to politicians, administrative bodies, the media and other target groups with assumed interest in the results in order to attract their attention for libraries and their work. The magazine contents and layout is tailored to attract the attention of these stakeholders: Each year, a person of public interest – including ministers, popular TV newsmen or writers – is interviewed for the cover feature. The complete ranking and the scores of all participating libraries inside are enriched with explanatory texts, winning libraries' profiles, articles and stories on best practice and other innovative and newsworthy topics in order to create a rich and vivid image of libraries. In addition to the magazine, the BIX website provides access to all results in an interactive online-database which allows to display detailed profiles and comparative analyses between libraries across all data and years the library has delivered data for.

## **QUALITY MANAGEMENT**

The Bibliotheksindex has increased the awareness and application of quality management methods in public and academic libraries. The Bibliotheksindex does neither interpret and communicate a library's results nor define standards, deliver a mission statement, strategic vision or management objectives by itself – they have to be developed by library staff. To support and encourage activities, workshops for participants are held at regular intervals.

Over nine respectively five years, a high number of formal and informal initiatives have evolved among BIX participants where BIX data provided a basis for more detailed comparisons (e.g. Staatliche Fachstelle für das öffentliche Büchereiwesen 2001). In a number of cases, BIX participants launched systematic quality

management initiatives. Public libraries in the administrative district of Düsseldorf in North Rhine Westphalia, for example, the most populous German state, have a history of setting up the first regional Inter-library comparison cluster in 1998. Four years later, 16 of these libraries – small, medium and large sized – set up a Quality Management Working Group. In the course of this project, the libraries developed a customer focussed process model which integrated the use of inter-library comparisons into their basic quality strategy. Seven of the libraries finally decided to become certified against the ISO 9000 standard. They received an ISO 9001 matrix certificate in 2006. While preparing to renew their award in 2009, the libraries are currently extending the model to feature quality criteria for cooperation with their suppliers and public administration bodies (Büning/Klein 2006).

## **PERSPECTIVES FOR FURTHER DEVELOPMENT**

Most of the active participants primarily use the BIX results to communicate their strengths and weaknesses to their funding institutions: Libraries with high scores use them to legitimate their achievements; libraries with less positive results use them to pinpoint deficits. Generally, participation and strategic use of the BIX results include no guarantee for success: Reactions from funding institutions include ignorance, the interdiction to use the results for public relations, general approval but also additional funding and the consent to a new library building (Klug 2003).

After nine years as an instrument and institution, the Bibliotheksindex for public libraries has proven success in putting „libraries on the agenda’, and in encouraging quality initiatives and benchmarking among public and academic libraries. The BIX has become increasingly self-dynamic in that libraries, decision makers and funding institutions impose a strong demand to develop a functioning instrument further and introduce measures on process quality, value, impact and outcome. Despite the demand for progress and innovation, there is clear evidence that ‘better’ libraries are more likely to take part in the Bibliotheksindex. Furthermore, a study on the application of management instruments in German libraries (Mundt/Vonhof 2007) indicated that 30% of public libraries and 50% of academic libraries claimed that they do not intend to practice any form of institutional comparison in the foreseeable future. The BIX of the future will therefore need to combine methodological progress with a convincing service proposal for future participants; focus groups on this topic are currently being held.

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# University Libraries

# **LIBRARY STATISTICS DATABASE OF THE NATIONAL UNIVERSITY OF LA PLATA (ARGENTINA): A COOPERATIVE EXPERIENCE**

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## **THE NATIONAL UNIVERSITY OF LA PLATA**

The history of the National University of La Plata (UNLP) begins in the late 19<sup>th</sup> century, when the National Congress proposed the establishment of a university in the recently founded city of La Plata, the new capital of the province of Buenos Aires. The proposal came as an answer to the new training needs for the younger generation in scientific, technical and cultural field areas.

Founded in August 1905 by Dr. Víctor Joaquín González, UNLP emerged as a modern university, far from the strictly 'academic profile' of these educational institutions. More than a century old, it remains a pioneer in cultural, artistic and scientific research and development. This has given the prestige that sets it among the main universities in the country, the American continent and the world. Teaching, research and extension programmes stand as the pillars of our university, and as all public universities in Argentina, access is free for everybody who wishes to study in there.

It currently has 17 faculties that cover all areas of knowledge: Astronomy and Geophysics, Earth Sciences, all kinds of Engineering, Maths, Physics and Chemical Sciences, Natural Sciences, Medicine and Dental, Veterinary, Architecture, Computer Sciences, Journalism and Communication Studies, Psychology, Arts, Humanities, Education, Sociology and Social Sciences with about 90,000 students. In recent years it has registered an average enrolment of over 20 thousand candidates per year. Annually over 5,000 new professionals graduate and leave their classrooms.

The academic offer includes 116 grades, 153 titles and 150 postgraduate courses, 33 doctorates, 60 MA courses and 57 specializations. About 60% of them have been accredited by the National Commission for University Evaluation and Accreditation, CONEAU.

It also has five Secondary and Primary Schools with an enrollment of approximately 4,800 students. The total community is made up of more than 10,000 professors and 2,500 professionals, administrative and service staff.

The University also has over 130 R&D Institutes, Centers, Labs and Units (16 shared with CONICET<sup>1</sup>) where some 3,000 researchers and 400 fellows develop their activities in over 600 R&D projects.

There is also a Museum of Natural Science (and a network of 12 thematic museums), an Astronomical Observatory, a Center for Genome Studies, a Public Library (and a network of 22 libraries), an Editorial house, an AM-FM Radio, an Institute of Physical Education with an Open Sports Center, a Leisure House called Samay Huasi in Chilecito, La Rioja, and astronomical stations, geomagnetic fields and experimental plots in various provinces.

By the end of 2004, a long awaited dream came true: UNLP reopened the University Dining Room, which was closed in the mid 70's. Today more than 5,000 students eat there.

The total area covered by its facilities exceeds 280,000 m<sup>2</sup>. Because of its history, it is the third university in the country (after the University of Buenos Aires – UBA – and the very close National University of Cordoba (UNC)) and the largest in the province of Buenos Aires. In fact, 90% of its enrolment are students from different towns of the province. UNLP holds one of the most complex academic tapestries in Latin America, given its wide offer of courses, research areas, exchange and extension programmes, and social integration.

## **ROBLE<sup>2</sup>, THE UNLP LIBRARY NETWORK**

On January 18, 1887, the Executive Branch of the newly born Buenos Aires province created the Provincial Public Library to initiate a bibliographic collection that was meant to constitute the basis for future research in different areas of knowledge. In 1905 when UNLP was created, this library was transferred to its premises. Since then, it has held more than 41,000 bibliographic volumes, including the ‘Cervantina’, a collection of outstanding significance<sup>3</sup>.

Parallel to the creation of individual faculties and academic units comprising UNLP, libraries for UNLP schools were created as well. In 1967 Roberto Couture de Troismonts<sup>4</sup> managed and ran the Public Library, and proposed the develop-

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<sup>1</sup> National Council of Scientific Research = Consejo Nacional de Investigaciones Científico-Tecnológicas [on line] [www.conicet.gov.ar](http://www.conicet.gov.ar)

<sup>2</sup> Two green leaves of oak is one of the symbols that identifies the UNLP. That's why the Library Network choose this name (ROBLE) and image. More information about this is available at: <http://www.biblio.unlp.edu.ar/new/simbolos.html> [last accessed 14-7-2008]

<sup>3</sup> 654 treasure volumes with editions of great bibliophile and literary value of the works of Miguel de Cervantes Saavedra of the sventeenth and eighteenth centuries in a variety of languages and translations. More information about this is available at: [http://www.biblio.unlp.edu.ar/new/col\\_esp.html](http://www.biblio.unlp.edu.ar/new/col_esp.html) [last accessed 14-7-2008]

<sup>4</sup> Couture de Troismonts (1918-2001), descendant of French emigrant parents, born in Buenos Aires and in 1936, when completed his studies, he began working on the Central Bank of Argentina (BCRA). In 1945 he began to work at the BCRA Library and from there comes his first contact with the library. Self-taught in its infancy, avid reader of specialized texts of the discipline, began work in

ment of the Library System of the National University of La Plata (Res. 859), as part of a rationalisation plan by which the 'Advisory Commission of the Library' was created. This Commission was made up of representatives of all faculties and colleges, and its purpose was to establish a joint procurement policy for bibliographic materials. The 'Librarians' Technical Committee', made up of directors of the libraries of Faculties and Institutes of the University, took an active role in all aspects regarding to librarianship and the coordination of the Library System.

Couture's management (1967–1973) was advanced for that time in our country: the Public Library became the head of the UNLP Library System. He got a new budget for the purchase of scientific literature, which allowed at that time to buy the entire academic production of Argentina. He worked in coordination with the different Faculty Libraries, and created the first Scientific Documentation Centre in response to the information load and the need for specialized services for science and scientific research. Moreover, he began publishing a monthly news bulletin called *Reports of the Library*, published and distributed the Argentinian University Bibliography on cards, launched a programme of microfilm for newspapers and organised numerous cultural activities (exhibitions, workshops, conferences).

After Couture's resignation, and as a result of the profound political and institutional crisis that led to the military dictatorship, the Public Library lost its leadership and the Library System ceased to function as such. From that date onwards, the position of Director of the Public Library was occupied by successive political leaders who gave no continuity to the original project. And although the situation began to improve with the advent of democracy in 1983, it was not until the end of the 90s that libraries in the UNLP started to organize themselves to work in coordination.

But at this time the need for coordination came from the libraries of Colleges and Faculties themselves, which together with the Public Library were the ones that proposed a structure of cooperative work, based on the formation of Inter-libraries Task Forces (ITFs) devoted to the study and development of specific projects, with the ultimate aim of forming the UNLP Library Network.

This has been the beginning of ROBLE, initially as a Web Portal that would be the specific location where the Libraries may be displayed at once, and then as an area of cooperative work. The people committed to the project have been working on various libraries of the UNLP, and were interested in this project. The initial ITFs teams have been working on:

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organizing numerous libraries. In 1950 obtained a grant from the French government to refine their studies in Europe, travel would be crucial to its formation, and that would result, upon his return, the introduction of a new orientation in the discipline in Argentina: the 'documentation'. This is clearly reflected in this stage of the career created librarianship in La Plata, and in his actions as head of the UNLP Public Library, in particular the creation of the Documentation Centre, unique and novel to date by its modern conception. (Parada, 2003)

- ITF Portal, with a team dedicated to the creation of ROBLE Web Portal
- ITF Evaluation of Information Units, with a team dedicated to develop indicators of library management
- ITF Formats / Software, with a team dedicated to studying software formats in use in various libraries for the integration of a collective catalog

Today, the UNLP Library Network consists of 22 libraries of various kinds: one public and central library, sixteen specialized faculty libraries, and five school libraries (primary and secondary education). Although they still do not formally integrate the network, libraries from centers, laboratories and specialized research institutes dependant on UNLP are being gradually incorporated to the net.

According to the latest survey conducted in 2007, in 18 of these 22 net-libraries there are collections exceeding one million monographic volumes and about 19.000 titles of serials (of which about 2.000 collections are current serials). Only 60% of the total collection is computerized, while 40% of Libraries have implemented a system of automated loan management. Libraries occupy about 14.000 m<sup>2</sup>, and nearly 250 persons work there, around 40% of whom are professional librarians.

## **BACKGROUND OF THE ITF EVALUATION OF INFORMATION UNITS**

The first statistical survey conducted by UNLP Libraries dates from 1997 and its completion was linked to the need to know the progress of computerization, of both books and serials, with the intention of shaping an automated collective catalog accessible via the Internet, since the UNLP had become part of the ISTECS<sup>5</sup> consortium.

In the same year, the SIU Libraries module<sup>6</sup> conducted a national survey to collect basic facts about national university libraries, in parallel with the gradual implementation of many FOMEC<sup>7</sup> projects in the country, that were oriented to improve the infrastructure and collections of libraries and staff training.

In 1999 the UNLP Libraries coordinated in conjunction with the Science and Technology Secretariat of the UNLP, organized the 'Primera Jornada de Intercambio de experiencias de las Bibliotecas',<sup>8</sup> which took place in December, where each library had the chance to express and share its projects and experiences with

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<sup>5</sup> Ibero-American Science & Technology Educational Consortium [www.istec.org](http://www.istec.org)

<sup>6</sup> SIU = Sistema de Información Universitaria (University Information System) del Ministerio de Educación de la Nación [www.siu.edu.ar](http://www.siu.edu.ar)

<sup>7</sup> Fund for the improvement of educational quality. Program of allocation of resources for development and financing of projects dedicated to improve higher education in national universities implemented by the University Policy Secretariat of the Ministry of Education of the Nation since 1995

<sup>8</sup> Workshop on Experience Exchange of UNLP Libraries

others. On that occasion it was re-distributed a survey to reveal library statistics. This survey was more comprehensive in content than the previous one, and was taken from the Spanish statistical model used by REBIUN<sup>9</sup>.

Even though a report<sup>10</sup> was produced with the data collected, little could be done to continue with a concrete plan of action since our efforts were not supported by our authorities.

In October 2001 ROBLE was created as the UNLP Library Network. The Public Library restored its historic role as a central coordinator node, and the Interlibraries Task Forces mentioned before were formed. The effect was immediate: joint projects that were delayed by lack of budget and motivation were quickly put into practice.

In addition, the ITF Evaluation of Information Units, was established with the aim of developing 'management indicators applicable to all libraries of the UNLP in order to measure and diagnose them. In this way, the ITF team facilitated and improved decision making processes.<sup>11</sup>

The ITF slightly updated the statistical form used earlier, which was distributed in digital format (spreadsheet). This includes automatic calculation of total, subtotals and a group of specially selected indicators to get a picture of the status of libraries at that time. The procedures of this survey were published in 2003 in the First Statistical Yearbook of the UNLP Libraries that yielded an diagnostic overview of libraries in 2001. Incidentally, at the same time, the University launched a long term process of self-assessment in all its areas, for the development of an strategic plan for 2004–2007.

Meanwhile, the ITF continued working in the statistical survey. Similar experiences in other countries were compiled and contrasted to the information in our survey, such as:

- REBIUN Red de Bibliotecas Universitarias y Científicas (España)
- CABID Comisión Asesora de Bibliotecas y Documentación del Consejo de Rectores de las Universidades Chilenas (Chile)
- CAUL Council of Australian University Librarians (Australia)
- ARL Association of Research Libraries (Norte América)
- SCONUL Society of College, National & University Libraries (Reino Unido)
- CARL Canadian Association of Research Libraries (Canadá)
- NISO National Information Standards Organization (USA)

Based on the information gathered, the survey form was modified and updated to carry out a new statistical survey in all libraries. The major changes made in the 2002 version of Statistic Form were:

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<sup>9</sup> REBIUN = Red de Bibliotecas Universitarias y Científicas Españolas (Spanish Academic and Scientific Library Network) [www.rebiun.org](http://www.rebiun.org)

<sup>10</sup> That report is available at the WEB of ROBLE > Statistics > Report 1999

<sup>11</sup> Cooperative Work Plan 2003-2004. ETI / Evaluación de UI. Available at: [http://www.roble.unlp.edu.ar/menu1\\_1.htm#](http://www.roble.unlp.edu.ar/menu1_1.htm#)

- We made a distinction between mandatory and optional fields, so as to ensure that all libraries at least completed the compulsory ones
- Data added: number of certificates, degrees, postgraduates and disciplines in which each Faculty or School was specialized
- Some fields were simplified (details of equipment available, staff activity, technical processes and computerization, etc.)
- We added to points 7 (collections), 8 (use of services) and 10 (budget) a special section to collect data about the existence, use and cost of electronic resources
- We added the point Discard, to assess this aspect of collection development
- The use of different services were unified in section 8. In addition to the use of electronic resources. measuring of reference transactions and users training activities were added
- We wrote an instructive manual with detailed definitions, examples and suggestions for the proper filling of the form, based on standard Z39.7

This new form was implemented in 2005 and the second *Statistical Yearbook of the UNLP Libraries* was prepared. The survey data was conducted in the form of a spreadsheet that libraries completed and sent to the ITF for centralized processing and analysis. Methodologically operating, the survey showed the expected results, but the following problems were faced:

- manual processing of the data was extremely cumbersome and prone to human errors in typing,
- tailoring and subsequent publication of the Statistical Yearbooks was delayed by two years, since there was no staff dedicated exclusively to this task,
- processed data was not registered in a public place or was easily accessible, so any subsequent study was difficult to implement, and,
- because of the excessive delay in processing, there was no time to move on comparative or more developed studies within libraries (benchmarking, second-level indicators, impact indicators, etc.).

For these reasons, during 2007 funds were managed to develop a Web application that would allow us to automate the statistical survey and generate a data base with all the data of the UNLP libraries collected since 2001.

## DEVELOPMENT OF THE WEB APPLICATION

The concrete example that was consulted as a model for the development of this application was the SCONUL statistical form, which could be accessed via the Internet in test mode. We also checked other similar developments (ASIBU<sup>12</sup> and

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<sup>12</sup> ASIBU Annarie statistique interactive des bibliotheques universitaires [on line]. – <http://www.sup.adc.education.fr/asibu/> [consulted 12-7-2008]

REBIUN). It was not possible to have access to the data loading screens of these last two models but we were able to access to the search interface and visualization. The goals set were:

- To allow access to the data entry of statistics from each of the libraries of the network through a web form
- To generate a database containing statistical information provided by each library
- To automate data processing, including the calculation of indicators and the generation of reports and graphs
- To allow the distribution and exchange with other libraries interested in this evaluation methodology
- Figure 1 shows the structure of the application

The first level is the institution level, which can be a University, a Faculty, School, Department, Institute, College, etc. This was made like this because of the complex tapestry of the UNLP as was explained before, and to allow the use of the application by others universities.

Inside the Institutions, we create the libraries, and inside the libraries we create the statistical forms. Each library can create one or more statistical forms according to their available data, one for each complete academic year.

The statistical form is divided into ten subforms that comprises the defined categories: Opening (apertura), Infrastructure (locales), Equipment (equipamiento), Users and population (usuarios y población), Disciplines and Grades (carreras y disciplinas), Collection (colecciones), Services (servicios), Computerisation (informización), Staff (personal) and Budget (presupuesto).

Each subform contains the data fields. For example, Infrastructure contains: total surface of the library, total surface of the parent institution, number of seats, total meters of open stacks, total meters of closed deposits, percentage of the surface dedicated to users, to staff and to collections and access to the internet (y/n).

From these nine fields, only three are mandatory (total surface of the library, number of seats and access to the internet) because they are needed to calculate the basic indicators. When a library creates a statistical form (for example, the 2007), it should complete at least all the mandatory data in all the subforms.

If the library completes all the fields (mandatory and optional), the application will show the complete list of indicators,<sup>13</sup> which are the following:

- Percentage of penetration of the library services in the population served
- Opening hours
- Available surface per user
- Space distribution (users, collections, staff)
- Proportion library surface / parent institution surface

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<sup>13</sup> For a complete description of the criteria used for data fields and indicators, see the Instruction manual in the application at [www.roble.unlp.edu.ar](http://www.roble.unlp.edu.ar)

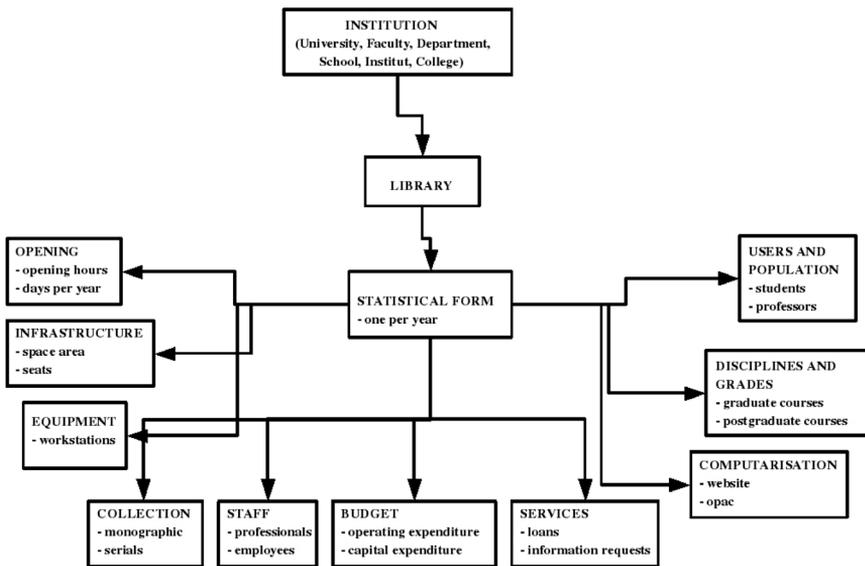


Figure 1: Web application structure

- Users per seats – Students per seats
- Proportion of collection located in open stacks / closed deposits
- Computers per librarian and Internet computers per users
- Monographic volumes per field, grade, and user
- Current serials per professor
- Special materials per user
- Electronic resources per user
- Monographic volumes added per user
- Percentage of computarisation advance
- Electronic information (website, opac, loan management system)
- Total services use registered by day, hour and user (in house use + loans + information requests + interlibrary lending + user training)
- Loans and in house use by day
- Loans and in house use per user
- Percentage of the total populations reached by user training activities
- Other services indicators
- Percentage of librarians from total staff
- Users by staff
- Capital expenditure used to the acquisition of bibliography, per user
- Total capital expenditure available per user
- Operating expenditure per opening day and hour
- Operating expenditure per user

- Operating expenditure per loan
- Total budget available per user
- Budget distribution (collection development, equipment, salaries and ordinary expenses)
- Budget origin (parent institution, external funds)
- Proportion library budget / parent institution budget

The selected indicators and data fields included in the application were the most common and usually mentioned in the library standards and statistical yearbooks consulted. We gave special emphasis to some aspects in which the UNLP libraries are weak (for example, infrastructure, buildings, budget), just because we wanted to highlight these problems to alert our authorities.

Among the minimum features the application meets, we can state the following:

- it provides control access and management of different levels of users and permissions (administration and data entry), so that each library could edit their own data through the Web
- Version 2004 of the statistical form was taken as the basis for its design and content
- it includes instructions and on-line help, general and contextual links to the loading screens, based on the last version 2004
- it allows validation of fields and areas, showing warnings and messages about errors or inconsistency in the data loading
- it allows the generation of reports, graphs and tables similar to those made in previous Yearbooks
- it allows data store from all libraries and previous statistical series (2001 and 2004), with the idea of implementing an interface for future consultation of the data

Among the technical requirements, we mentioned the possibility that the system should be scalable, distributable and configurable to different needs considering its possible application in other institutions. Moreover, special emphasis was given to the following aspects of the application: to respect the aesthetic criteria of pre-existing ROBLE Portal (look and feel) as well as the accessibility standards and regulations of the W3C, use of trademarks, XHTML and CSS.

Finally, the application was run by a Linux-based platform Python + Zope + Plone software, because among the members of the ITF where developers, programmers, designers and librarians with expertise in the subject, both from the point of view of programming as from the use and operation of the system<sup>14</sup>. Moreover, the idea of using a content management system for WEB (CMS) was functional to another longer-term objective, which is to enable a virtual workspace for the library network, to form an intranet.

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<sup>14</sup> The software used for this development is the same that has been put into operation one year earlier for the development of the Faculty of Humanities and Educational Sciences WEB Portal

The team that developed this application was: interdisciplinary: librarians specified the initial technical specifications, developers designed and programmed the software application, then librarians tested again the application and loaded the initial data, corrections were made and finally the system was put into operation in mid-2007.

After a brief workshop in which we taught the application to librarians of the net, each library recorded their statistical data for 2006 in the WEB form. The team reviewed the loaded data and made the necessary corrections on each form. We also inserted data from previous surveys to check the consistency of the application. This allowed us to get the specific product that is available today online: the statistical database of UNLP libraries (2001, 2004 and 2006), which can be seen at the ROBLE Portal in [www.roble.unlp.edu.ar](http://www.roble.unlp.edu.ar).

Once this first stage was over, programming continued to allow the generation of summaries of data and displayed automatic calculated tables that resulted from the selection of specific indicators, e.g. each library in a given year, each library over time, and all libraries with one another.

Some of this work and its progress was introduced in the Workshop of Library Evaluation Indicators (<http://tieb.fahce.unlp.edu.ar>) held in the city of La Plata in December 2007 and in the 12th University Library Meeting<sup>15</sup> that took place in Buenos Aires in April 2008, with the idea of extending its application to the entire university libraries in Argentina.

## **CONCLUSIONS AND FUTURE LINES OF WORK**

The results obtained so far have enabled us to observe and monitor the status of UNLP libraries from an analysis of their indicators. These results were obtained from the collection in standardized form of large amounts of statistical data, combined with one another, to show a picture of every studied aspect: infrastructure and equipment, collections, budget, personnel, services and users.

In turn, the obtained indicators have enabled us to compare ourselves with other libraries in other countries. Even if they face another context and historical time, this analysis provides us with a measure of our own development, and highlights the differences and gaps, for example, in connection with resources, when we compare ourselves with developed countries or with international standards.

In 2008 we have focused on improving the statistical form by incorporating some changes and clarifications based on the definitions of terms of ISO 2789, and the production of reports and summaries of data parametrization according to user requirements.

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<sup>15</sup> Organised in the context of ABGRA Annual Meeting, the Librarians Association of the Argentine Republic, more information is available at [www.abgra.org.ar](http://www.abgra.org.ar)

Despite the widespread use of this methodology in other countries, Argentina has a substantial backlog in the area, since it is relatively new the working with statistics and indicators generation. In this sense, our work has been exhibited in numerous meetings and events in the field, and we have become referents in this subject.

In our country, every single attempt and step towards the development of this area has been the result of self-motivated Library Directors. Unfortunately, there is neither an assembly of university libraries, nor a body that formally addresses the issue<sup>16</sup>. For this reason, and by virtue on the progress achieved at UNLP, we thought of expanding and adapting our development and working methodology so that it can be used by the rest of Argentinian University Libraries that might wish to join this initiative and participate in a piloting experience.

However, for the project to have a national scope it requires an institutional commitment and steady funding to be sustained over the time. The UNLP through ROBLE is interested in maintaining the leadership in this issue, since we have been working in the necessary steps for its institutionalization and securing steady funding.

Based on the shared progress and accumulated experience at the UNLP, we are heading for the establishment of a community development project that involves different levels. We believe in contributing to shaping statistic database and collaborating on the design improvement, documentation, manuals, etc, as it occurs in open source projects.

The underlying philosophy is that of cooperative and distribute work, since each library provides and maintains its own data, and in return it can have access to the data from other libraries, to be used in its own analysis and benchmarking.

The IT development that resulted in the statistical database is free of charge and open to the public. Our project proposes a cooperative and distributed framework, with the idea of making and maintaining a Statistical Database of Argentinian University Libraries, which can be administered on a rotating basis from one of these cooperating universities.

Finally, it must be reiterated that the process of mapping and data loading carried out each year has shown significant weaknesses with training librarians to complete such tasks. There have been a number of constraints met and the solution seems to lie in implementing guidelines and standardized procedures for recording

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<sup>16</sup> DIBUN, the list of directors of national universities libraries that emerged in 2003 as a mailing list for discussion and treatment of common issues, is an initiative that is still forceful at some point, and was raised its constitution as an agency meeting. The CBA-Consortium of Argentinian Libraries-emerged at the behest of educ.ar was also raised as an instance of that meeting, that eventually failed. The SIU-Libraries module across the preparation of national union catalogs, and the advisory committee of the BECYT-Electronic Library of Science and Technology, are other spaces for directors' meeting for discussing various common goals. Finally the annual meetings of professionals working in university libraries -the ENBU, National University Library Meeting and JBDU, Conference of Digital University Library, both held in April and in October-are also areas where recursively meeting discussed these issues.

statistics. The most critical problems are: lack of thoroughness in the processing of data, lack of uniformity in the form of recording, unreliable data, or complete absence of registration of such data.

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# ONLINE STATISTICS FOR AUSTRALIAN, NEW ZEALAND AND ASIAN ACADEMIC LIBRARIES

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CAVAL

## ABSTRACT

*This paper describes the Australian and New Zealand Academic and Research Library Statistics and a pilot project for the benchmarking of library statistics for Asian Academic libraries. CAVAL Collaborative Solutions, an Australian library consortium, is managing the pilot project with sponsorship being provided by the iGroup, Asia.*

*CAVAL provides a range of services to its members and customers. These include the collection and publication of library statistics and the provision of consultancy services and professional development and training in Statistics and Library Assessment. In particular CAVAL has managed the collection of the Australian Academic and Research Library Statistics for CAUL (Council of Australian University Librarians) statistics since 1992. In 2004 CAVAL explored options for the development of an online statistics website for the CAUL Statistics and a pilot site was developed, through CAVAL's partnership with the ARL (Association of Research Libraries) and modelled on the well-known ARL online statistics site. Following enthusiastic evaluation by CAUL libraries the pilot site was further developed and the service went live in 2005. Since that time a number of enhancements have been added to the CAUL Statistics Online site.*

*The objectives of the Asian Statistics pilot project are to provide the same functionality as the CAUL Statistics online website for Asian academic libraries; to improve the collection processes for the individual libraries and to develop a sustainable service for statistical benchmarking.*

*Phase 1 of the pilot, during which 2 years worth of data is being collected, loaded and made available for benchmarking from the online website, is almost complete. Twenty-two libraries from four countries in the region – Malaysia, Singapore, Thailand and Hong Kong – are participating. Phase 2 will allow for the collection of an additional years data from the participating libraries. The online website and the service will then be evaluated by the participating libraries, the iGroup and CAVAL.*

*The paper concludes with an outline of some of the challenges and issues which have arisen through the Asian libraries pilot project.*

There are many reasons for modern libraries to gather, store, analyse, and provide access to data about their users, operations, personnel, services and collections. Efficient and effective tools are essential in order to make better business and service decisions, to make the library more visible and to increase user satisfaction. These

tools may include applications such as decision support systems, online analytical processing and statistical analysis, forecasting, and data mining. CAVAL has developed an online statistical benchmarking service which provides immediate results to the desktop and gives individuals the capability to manipulate data in a sophisticated fashion.

CAVAL is a public not-for-profit company owned by 12 universities across the Australian states of Victoria, New South Wales and Tasmania. Established in 1978 as a cooperative venture by the Victorian academic libraries, CAVAL provides a variety of services to libraries on a collaborative and commercial basis including shared catalogue systems and services, consultancy services, training and staff development, inter-library-loan and document delivery services and systems, and storage for library materials. These services include the collection and publication of library statistics for several library sectors which is enhanced through the provision of consultancy services and professional development and training in Statistics and Library Assessment.

The Australian and New Zealand Academic and Research Library Statistics have been managed by CAVAL for CAUL (Council of Australian University Librarians) since 1992. More recently CAVAL has been working with a number of Asian Academic libraries on a pilot project for the benchmarking of library statistics in the Asian region with sponsorship being provided by the iGroup, Asia.

## **CAUL STATISTICS**

Statistics have been collected annually for the Australian University Library community since 1953, and were originally published in the 'News Sheet of the University and College Libraries Section, Library Association of Australia'. Data from 1953 to 1983 was published in the 'Red Book' of Library Statistics (Long, 1986). New Zealand University library data has been included with the CAUL Statistics since 1974, this is coordinated through CONZUL (Council of New Zealand University Librarians).

Until 1996 the CAUL Statistics data was collected using printed forms and the data was then keyed into a mainframe SPSS database from which the output reports were generated and printed externally. This process was streamlined in 1996 when the use of Excel spreadsheets and email were introduced. Contributing libraries completed an Excel spreadsheet that incorporated the data definitions and a template for the data values to be entered. The CAUL Statistics website was established in 1997 in order to make the collated statistical data easily accessible and publicly available. Since that time the website has expanded to incorporate the data definitions and Excel templates for each year's statistical collection, along with links to other relevant statistical websites and the CAUL Statistics reports back to 1993 (those prior to 1996 were converted from SPSS to Excel spreadsheet format).

In 2003 the CAUL Statistics Focus Group conducted a survey of CAUL members to find out how the statistics are used, and gain an understanding of requirements for further development of the statistics. There was strong support for a number of enhancements, especially for an online statistics website. The development of the CAUL online statistics website followed a pilot facilitated through CAVAL's partnership with the ARL (Association of Research Libraries) and modelled on the well-known ARL online statistics site, managed and hosted by the University of Virginia. This was achieved in mid 2004, and the site was then tested and reviewed by CAUL staff responsible for data collection – their response was enthusiastic. Following the pilot CAUL engaged CAVAL to develop and implement the site as an ongoing service.

The site, at <http://statistics.caul.edu.au>, went live in early 2005. Data back to 1995 has since been loaded into the online database. The online statistics site includes a data entry module which has been used for collection of the data since 2004. The website was further developed and a number of enhancements incorporated into the site in 2006 and 2007. These have included

- online display of Comments/Notes fields supplied by contributing institutions
- data which is an estimate only is displayed in italics
- maximum number of institutions which can be displayed increased to 15
- facility to select data by Region added – regions available include each Australian state, New Zealand and CAUL
- a 'Standard Set', which calculates the ratios and rankings previously provided in the annual printed version of the CAUL Statistics

The CAUL Statistics were published annually in print form in the journal AARL (Australian Academic and Research Libraries) until 2006 when the decision was made to only provide the data electronically. Data from 1995 onwards is available through the CAUL Online Statistics website and data prior to 1995 is available in Excel spreadsheet form from the CAUL statistics website.

The dimensions of the data collection have changed considerably over the 55 years. The number of contributing institutions increased with the creation of new universities and colleges in the 1960's and 1970's, and then reduced following the cycle of mergers and amalgamations which took place in the late 1980's and early 1990's. The number of data elements reached a peak in 1992, this was reduced over the following decade to make the collection more manageable and keep it relevant.

The following table summarises these changes.

The design and development of the online database raised some complex issues in relation to data relationships and definitions. For example, what degree of change to the name of a data element and/or its associated definition is required before it should be regarded as a different element? It was a relatively easy decision to make the current item 'Non-serial items: total' equivalent to the older 'Total monograph items in library' and even older 'Total monograph volumes in li-

brary' data items. However the former 'Most common number of opening hours during semester' and 'Most common number of opening hours during vacation' are clearly not equivalent to the current 'Opening Hours'. Similar issues apply to institutional names, although it can be argued that a name change is simply a label, whereas a merger or amalgamation creates a new organisation. In the past some (but not all) multi-campus University libraries supplied data for each campus, whereas nowadays data is only collected for the library as a whole. Each of these relationships needed to be clearly defined when mapping the data into the online database. A decision was made to discontinue the use of column numbers in the online system. Although column numbers have been a useful shortcut reference to data elements, they cause confusion when items are added or removed over time.

	<b>1953</b>	<b>1961</b>	<b>1983</b>	<b>1992</b>	<b>2003</b>
Contributing institutions	9 Australian University libraries	10 Australian University libraries	26 Australian & New Zealand University libraries & 52 College libraries	72 Australian & New Zealand University Libraries – (main, campus & branches)	39 Australian Universities 1 Australian archival store 8 New Zealand Universities
No of data elements	14	84	81	97	85
Data categories	<ul style="list-style-type: none"> <li>• Staff</li> <li>• Holdings</li> <li>• Expenditure</li> </ul>	<ul style="list-style-type: none"> <li>• Staff</li> <li>• Lending</li> <li>• Inter-library loans</li> <li>• Seating</li> <li>• Acquisitions</li> <li>• Holdings</li> <li>• Expenditure</li> <li>• Institutional population</li> </ul>	<ul style="list-style-type: none"> <li>• Library Staff</li> <li>• Administrative structure</li> <li>• Library Services</li> <li>• Bibliographic Resources</li> <li>• Library Expenditure</li> <li>• Institutional population</li> </ul>	<ul style="list-style-type: none"> <li>• Library Organisation</li> <li>• Library Staff</li> <li>• Library Services</li> <li>• Collection Resources</li> <li>• Expenditure</li> <li>• Institutional population</li> </ul>	<ul style="list-style-type: none"> <li>• Library Organisation</li> <li>• Library Staff</li> <li>• Library Services</li> <li>• Collection Resources</li> <li>• Expenditure</li> <li>• Institutional population</li> </ul>

## CAUL STATISTICS FOCUS GROUP

The CAUL Statistics Focus Group is a committee which oversees the collection and publication of the CAUL Statistics. The Terms of Reference and Operating Guidelines state that 'the CAUL statistics represent a major achievement of the organisation, and provide a clear, reliable basis for benchmarking, comparison and analysis. They compare favourably with data produced by equivalent bodies in their useability and consistency. They constitute a major resource for the management of university libraries in Australia and New Zealand.'

The goals of the Group are that the CAUL Statistics provide

- Accurate, relevant and authoritative data relating to Australian & New Zealand university libraries
- Consistency of data over time
- Data available widely – accessible, public and widely promoted
- Data which permits analysis of trends
- Collection of both traditional and new information
- Training/feedback opportunities for relevant university library staff
- Statistics which are cheap, useful and valid.

CAVAL works closely with the Group to determine the fields for which information is to be collected and develops and maintains definitions and instructions. It is the role of the Group to ensure that the statistics remain relevant, and capture as much as possible the range of activities and outputs of a university library, so that the development, trial and incorporation of new fields into the collection are regularly discussed. The group also monitors the CAUL statistics ensuring that they are aligned, when appropriate, with other statistical publications, in particular those of ARL, CARL and CURL/SCONUL, as well as international standards, including ISO TC 46 and NISO Z39.7 and the work of the Standards Australia Committee IT/19.

As libraries moved to subscribing to serials in electronic form during the 1990s the collection of statistical data about serials increased in complexity. The completeness and accuracy of the data supplied to CAUL was variable. In 1999, the CAUL statistical definitions were expanded to specifically include several categories of electronic serials and these were further refined in 2000. This has resulted in a discontinuity of data and is a complicating factor when analysing the CAUL serial subscription statistics. An innovative and useful tool, the CAUL Statistics Deemed List, was developed to assist contributors in their annual statistical collections by providing a single source of information for the number of journals in various full text packages, either those from a single publisher, or aggregations of several or hundreds of publishers. The objective is ensure that the same methodology is used by all participating libraries so that appropriate comparisons can be made – rather than being distracted by exactness, for example, whether a particular collection has 543 or 544 titles. The information is collected from publishers, aggregators and web-sites. At this point in time it is acknowledged that it is difficult to de-duplicate titles held in both print and electronic collections.

Incorporation of data on electronic resources into the CAUL Statistics has concerned the Group for several years now. Following the well-publicised ARL E-metrics trial, local trials were run in New Zealand (2003) and Australia (2004). Since 2004 Expenditure on E-resources, has been included in the CAUL statistics data collection. In 2007 a pilot set of questions relating to the reporting of e-books was added.

Contributing libraries are encouraged to supply corrections to data from previous years. Often this occurs when internal processes are reviewed and/or a different staff member takes over responsibility for the statistical data. CAVAL then updates the database and also the full Excel spreadsheet on the CAUL statistics website.

The CAUL Statistics Focus Group encourages institutions to use the CAUL Statistics as their only statistical database. For this reason a number of optional non-core data elements are included. Core data is defined as bench-markable, required by other bodies or useful for political purposes. It is recommended that non-core (i.e. optional) data is supplied wherever possible, even if only a best estimate, in order to improve the reporting of time series data.

## **ASIA ACADEMIC LIBRARIES ONLINE STATISTICS: PILOT PROJECT**

The iGroup (Asia) is providing sponsorship for CAVAL to develop and provide the means for libraries to benchmark regionally across Asia, and eventually internationally. This is being facilitated through the development and implementation of an interactive statistical website for the collection and presentation of statistics for a pilot group of 22 Asian academic libraries.

The participating libraries are

- Hong Kong – Chinese University of Hong Kong, City University of Hong Kong, Hong Kong Baptist University, Hong Kong Institution of Education, Hong Kong Polytechnic University, Hong Kong University of Science and Technology, Lingnan University, The University of Hong Kong
- Malaysia – International Islamic University Malaysia, Universiti Kebangsaan Malaysia, University of Malaya, Universiti Teknologi Malaysia
- Singapore – Nanyang Technological University, National University of Singapore
- Thailand – Chiangmai University, Khon Kaen University, MAEJO University, Mahasarakham University, Silpakorn University, Suan Dusit Rajabhat University, Suranaree University of Technology, Walailak University.

The objectives of the pilot project are to

- develop and provide an online statistical website for Asian academic libraries
- implement sophisticated functionality for online benchmarking
- improve the data collection processes for the individual libraries
- provide an sustainable online statistical service for Asian academic libraries.

Phase 1, during which data for the years 2005 and 2006, has been collected, loaded and made available for benchmarking from the online website is almost complete. Phase 2, the collection of an additional years data (2007), is now underway.

The 3<sup>rd</sup> phase of the pilot project will be the evaluation of the online website and the service by the participating libraries, the iGroup and CAVAL.

There are a range of benefits to the participating libraries. These include

- local benefits – tracking each individual library over time, developing staff expertise
- institutional benefits – showing the contributions of the library
- national benefits – comparing with other institutions, gaining a national overview of library services
- regional benefits – comparing with similar libraries in other countries, learning from the differences
- global benefits – greater understanding of the role of libraries, opportunities to be involved and contribute to this regional development.

The project began in 2006 with introductory workshops in Singapore, Malaysia, Thailand and Hong Kong. These workshops were generously sponsored by the iGroup (Asia) and explored the use of statistics and other measurement tools to describe, measure, evaluate and benchmark the performance of libraries and their contributions to teaching, learning, research and community service. Following positive feedback to the proposal to setup an Asian Online statistics site based on the CAUL Online Statistics and agreement by the iGroup (Asia) to sponsor the pilot project, initial site development and setup was undertaken.

In 2007 a second set of workshops was run which focussed on the details of participation, including the functionality to be available from the online statistics site and detailed definitions of the data elements for which data is to be collected.

Libraries began entering data into the website in August 2007. Help-desk services for participating libraries are provided by CAVAL (email and telephone).

There are some challenges in developing a statistics service for groups of libraries with cultural and language differences, and physically located across a wide geographic area. Some of the practical issues encountered have been allowing for different currencies and different academic and financial years, and providing appropriate assistance and information for participants with varying technical backgrounds and local infrastructure support. Although the libraries are all keen to be involved and wish to benchmark with CAUL and ARL libraries there is not a tradition of sharing data and hence less familiarity with the practicalities.

## **FUNCTIONALITY OF THE CAUL AND ASIAN ONLINE STATISTICS SITES**

The CAVAL online statistics sites for CAUL and for the Asian Academic Libraries consist of Open Source products (MySQL and Linux). The benefits include no license costs and low hardware specification requirements. However, the cost of developing the ‘front end’ has been higher, as more development time has been

required. CAVAL hosts and manages all aspects of the services – system operation and maintenance including, hardware, operating system, database, web server and network components. CAVAL also provides project management for the development and implementation processes and supplies regular progress reports to participating libraries.

The software developed by CAVAL can be easily adapted to create benchmarking services for any set of statistical data. In particular statistics collected by other cultural institutions such as museums and art galleries and local government agencies.

Both sites provide functionality to

- compare institutional data – up to fifteen institutions can be compared using an unlimited number of variables
- calculate ratios and other statistical measures, displaying results online for all the institutions in the dataset in ranked order.
- display summary statistics – online display of descriptive statistics for all of the institutions in the data set
- produce graphs – allows the production of an online graph for one institution and up to fifteen variables, or up to fifteen institutions and one variable.
- download data – extract and download a subset of the data by selecting the required institutions, regions (Countries or States), variables, and range of year(s)
- input data – online input of data by staff from contributing institutions, incorporates data validation and online help.

The data for both sites is divided into 6 sections. The 35 variables selected for the Asian Statistics pilot are a subset of the 85 variables currently used for the CAUL Statistics. The sections are

- Library Organisation – general information about the library, including the number of libraries, opening hours, seating facilities, staffing details, shelving and archive capacities
- Library Staff – data about the staff of the library, broken down by both type of staff and position classifications
- Library Services – data about services provided by the library, includes Information Literacy and instruction, Loans, Document Delivery Services, Inter-campus and inter-branch lending and turnstile counts
- Information Resources – data about the library’s Information Resources broken down by bibliographic level i.e. serial or non-serial. Non-serial includes monographs and other non-serial works in any medium or format. A pilot set of 4 data elements relating to e-books are included in the collection of the CAUL 2007 data collection
- Library Expenditure – data about the library’s expenditure, broken down into acquisitions, salary and operational expenses

- Institutional Population – includes all staff and students belonging to the institution, including non-academic staff.

## CONCLUSION

The CAUL Online Statistics website has become a vital and regularly used tool for identifying and benchmarking data about Australian and New Zealand academic libraries. It is hoped that the Asian Online Statistics site will, over time, expand and develop to provide the same useful service to libraries across the region. The technical design and setup of both sites has been designed to enable future benchmarking between Australian, New Zealand and Asian libraries, and beyond.

CAVAL's long history of cooperation and collaboration with libraries, combined with more recently developed technical and statistical expertise, provides a solid platform from which to further develop online statistical and benchmarking services. There are exciting opportunities for international collaboration which will be welcomed by many libraries.

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# **LIBQUAL CANADA 2007: SERVICE QUALITY BENCHMARKING ON A NATIONAL SCALE**

Sam Kalb, Assessment and IT Projects Coordinator, Queen's University

## **INTRODUCTION**

The 2007 LibQUAL Canada Consortium was an historic achievement in the development of library assessment practice in Canada. As the largest ever LibQUAL+™ consortium, covering the majority of Canada's university libraries, the LibQUAL Canada Consortium has taken a very large first step in collecting service quality data for benchmarking on a national and regional level. This article outlines the development of the consortium within the national context, what made it successful for its members and its experience with the LibQUAL+™ survey (what we have learned and where we would like LibQUAL+™ to go in the future).

## **WHY NOT JUST DEVELOP A CANADIAN SURVEY?**

This question did arise during the initial planning of the consortium. Ultimately, however, LibQUAL+™ was the clear choice for the consortium's 2007 survey project. It had been refined and validated over the years with input from participants, focus groups and other analyses. The challenges and costs to build a better Canadian survey instrument and a national support infrastructure such as that provided by ARL for LibQUAL+™ participants would be huge. Above all, more Canadian institutions needed some experience with such a program before we could consider engaging in fruitful discussions about alternative assessment directions.

## **LIBQUAL+™ AND THE CANADIAN CONTEXT**

More than 20 Canada university libraries had participated in LibQUAL+™ since its inception. However, among the hundreds of mostly American participants, in any given year, there had never been more than ten Canadian participants. The latter fact is crucial to understanding the impetus behind the development of the LibQUAL+ Canada Consortium.

Education in Canada is under provincial jurisdiction and all academic institutions are publicly funded (other than a few small faith-based schools). Public policies, practices and funding relating to higher education have varied widely across Canada. These factors have notably shaped higher education in each province. So, the opportunity for academic libraries to benchmark their services with those of

peer institutions in the same provincial/regional jurisdiction was a powerful incentive.

By 2006, LibQUAL+™ was the primary instrument used by Canadian academic libraries to assess library service quality, according to a recent study of assessment practices in Canadian university libraries by Jordan and McKenna.<sup>1</sup> In fact, the study found that LibQUAL+™ was the first, and in many cases the only, systematic service assessment instrument used by Canadian academic libraries.<sup>2</sup>

## ORIGIN OF THE LIBQUAL+™ CANADA CONSORTIUM

At the June 2005 Annual General Meeting of the Canadian Association of Research Libraries (CARL),<sup>3</sup> members expressed interest in coordinating LibQUAL+™ participation in order to create a larger database of Canadian content that would offer more meaningful benchmarking of services for Canadian academic research libraries. The CARL Committee on Effectiveness Measures and Statistics proposed a CARL-sponsored Canadian ‘consortial submission’ to LibQUAL+™ in 2007. I was appointed to head the consortial project.

When the survey opened in January 2007, 46 universities, 7 community colleges<sup>4</sup> and 3 federal government libraries from across Canada, had registered as members of the LibQUAL Canada Consortium. More significantly, 66% of the libraries had never done the survey including some smaller institutions who might not have considered using this service assessment tool on their own. A few other universities had initially joined the consortium but were not able to accommodate the survey program in their 2007 operations.

The members ranged from one of the largest universities in North America to small colleges. Our largest participant, the University of Toronto, registered each of its three campuses separately for the survey. At least two universities registered with a community college that shares the university’s library facilities and services. One large member university (University of Alberta) does the survey annually. Notably, Alberta is also one of the very few Canadian libraries with a dedicated library assessment position.

A highly significant feature of the consortium was the need to represent the French-language, English and bilingual institutions. Although informal communication within the consortium was generally conducted in English, all of the consortium’s documentation and announcements were bi-lingual as were all of the con-

<sup>1</sup> McKenna, Julie and Jordan, Isla. *Assessment Strategies for Library Services* ([http://www.accessola2.com/superconference2007/fri/1408/mckenna\\_jordan.ppt](http://www.accessola2.com/superconference2007/fri/1408/mckenna_jordan.ppt)).

<sup>2</sup> McKenna and Jordan.

<sup>3</sup> CARL is an association of 30 research-intensive institutions; 27 universities, Library and Archives Canada, Canada Institute for Scientific and Technical Information (CISTI), and the Library of Parliament.

<sup>4</sup> Canadian community colleges normally offer diploma and certificate programs, but not programs leading toward a university degree.

sortium's web pages. While ARL offers the basic survey questions in French most of the optional/local questions did not have French translations. The consortium took on the responsibility, on ARL's behalf, of ensuring that all the survey and demographic questions used by members of the consortium had correct Canadian French translations.

## **OPPORTUNITIES & CHALLENGES**

The opportunity to benchmark the library's services and programs with comparator Canadian institutions offering similar programs and services or within the same political/funding jurisdiction, was the consortium's most valuable primary purpose.

The consortium also offered its members:

- the opportunity to learn more about library assessment practice, including data collection, analysis and application in planning services, etc. within a supportive collegial environment;
- the opportunity for locally hosted workshops, including a pre-consortial survey workshop held in June 2006 in Ottawa and a 2007 national assessment conference/workshop in Ottawa to help participants communicate and apply their findings effectively.

Although the LibQUAL Canada Consortium was by far the largest LibQUAL+™ consortium, it was the bilingual nature of the consortium that presented the greatest challenge. While ARL had French Canadian translations for the basic survey questions, the optional questions selected by the consortium had to be translated. In addition, the demographic data elements for U.S. government organizations were inappropriate for the Canadian federal library members. The consortium worked with ARL to develop a custom Canadian government demographic and to translate it into French. In addition, ARL had never before integrated the survey results from two languages into consolidated sets of consortial results.

## **BUILDING THE LIBQUAL CANADA CONSORTIUM**

What factors went into establishing and conducting this large and successful consortial project?

- *Governance and Support.* The 2007 project was funded through annual budget allocations from CARL in 2006 and 2007. My time, as coordinator, was seconded to the project by my employer. Ongoing operational support was provided by CARL staff, most notably by Katherine McColgan. The Project reported to the Association through the Chair of the Committee on Effective-

ness Measures and Statistics, Mme. Sylvie Belzile. Ms. Belzile, Ms. McColgan and I comprised the informal project team. The project team met periodically by phone to review the progress of the project and I prepared written progress reports for the CARL directors at pre-established milestones throughout the project.

- *Project Management Approach.* Many participants were first-time participants; most did not have dedicated assessment staff to manage the process successfully on their own. By approaching the survey as a project, the consortium could guide its members through the planning process, via discrete, manageable sets of actions; each stage with its own timelines and deliverables. This approach was also important in coordinating the activities of all the consortium members throughout the planning and implementation process.
- *Communication & Engagement.* My first action as Consortium Coordinator was to establish a moderated discussion/announcement list to which I subscribed each library contact. To maximize engagement, any librarian from a Canadian academic library was welcomed to join. Members were encouraged to contribute in shaping each phase of the project. Timelines and action items were revised at each stage based on member input. My highest priority was to ensure that every query was answered in a timely fashion and, in most cases, that the exchange was shared with the membership
- *Active recruitment of participants.* As persuasive as the benefits listed on the web site may have been, recruiting the broad range of participating libraries involved:
- *Building a critical mass.* The Consortium sent invitations to the various library groups through their national and regional councils emphasizing the opportunity for peer benchmarking with libraries in the same regional/provincial jurisdiction. Follow-up announcements were sent to the councils, reporting who had signed up and encouraging others to enrol in the consortium. Once a critical mass of libraries from a region had joined, the regional councils (e.g. the Ontario Council of University Libraries) encouraged their other members to join the consortium.
- *Individual invitations* and follow-up communication were sent to encourage maximum participation by leading institutions that other libraries tend to use as benchmarks.
- *Rapid response to queries* from potential participants.

To assist them in persuading reluctant, wary administrators; in each case, we were able to supply the library with the information and documentation required to gain approval to participate, including documentation submitted by other Canadian academic libraries to gain research ethics board approval or exemption for their survey. The anonymous nature of the survey was certainly a consideration in gaining broad participation from the Canadian academic library community – particular-

ly in a period when Canadian institutions were becoming concerned about the potential scrutiny of private Canadian data held in American databases, under the U.S. Patriot Act.

- *Web Site.* A major tool for recruiting members and for success of the project, was presenting the Canadian library community with a full-featured web site at the start of the project. While ARL's LibQUAL+™ site contains a vast amount of useful information, its very size makes it a daunting resource to navigate.

The home page of the consortial site changed at key points in the life of the project. At the beginning of the project, the focus of the site was to attract participants and highlight the benefits of membership. During the planning and preparatory phases, the timeline became the primary link at the top of the navigation sidebar. After the survey closed, the consortial results page became the primary link in the navigation bar. The pages were continually updated throughout the project to maintain accurate timely access to resources for the members.

## CONSORTIAL CONFERENCES & WORKSHOPS<sup>5</sup>

CARL, with invaluable support from ARL, sponsored two conference/workshops. The first was a one-day program, held in Ottawa in June 2006, in conjunction with the Canadian Library Association annual conference. The goals of the conference/workshop were to: (a) prepare consortium members to conduct the survey and (b) to recruit and inform prospective consortium members about the potential benefits of LibQUAL+™ and the consortial project. The conference was very successful in meeting both goals. It attracted 60 delegates and the consortium grew by 30% after the program.

The second consortial conference had more ambitious goals. Held in Ottawa in October 2007, LibQUAL & Beyond was a two-day stand-alone conference/workshop whose goals were: (a) to help consortium participants to analyze their LibQUAL+™ results effectively; (b) to serve as a first Canadian library assessment conference; (c) to encourage libraries to use their LibQUAL+™ results and other kinds of assessment tools effectively, and start to build a “culture of assessment”. The conference was a great success, attracting 70 delegates from across Canada and engendering lively discussion. As significant as the actual program was the opportunity for delegates to meet other colleagues engaged in library assessment and talk about local practices, potential collaborations and what an “assessment librarian” actually does.

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<sup>5</sup> The pre-survey <http://library.queensu.ca/webir/canlibqual/carl-workshop.htm> and post-survey <http://library.queensu.ca/webir/canlibqual/carl-workshop-2007.htm> conference programs and presentations are posted on the consortial web site.

## CONSORTIAL DELIVERABLES

*ARL Report Notebooks:* ARL delivered the standard consortial results notebook with the aggregate data broken down by library type and user category. Within each group, the data was also broken down by survey language. In addition to the standard report notebook, the Consortium contracted with ARL to produce separate notebooks representing the aggregate results for CARL members, Ontario university libraries (OCUL), and Quebec university participants, Conférence des recteurs et des principaux des universités du Québec (CREPUQ).

The councils also approved my request to post the report notebooks on the LibQUAL Canada web site; making this data freely available to members and other researchers.

### LibQUAL+® 2007 - Consortial Results

Aggregate results compiled by ARL on behalf of the LibQUAL+ Canada Consortium

- **LibQUAL+ Canada Consortium** (rev. 9/17/07). Results from all 54 participating libraries
- **CARL** (rev. 9/21/07). Results from the 25 CARL member participants
- **CREPUQ** (rev. 9/21/07). Results from the 11 CREPUQ member participants
- **OCUL** (rev. 9/21/07). Results from the 16 OCUL member participants

*Data Sets:* The consortium had received the complete data set representing the results for all 48,000 respondents. While it was important to provide the data to member libraries for comparative analysis, the consortium also wanted to protect the privacy of individual libraries who might not want to share their own library's raw data. So, the consortium made a pre-processed form of the consortial data available to its members to do their own analyses. Ron Ward, from the University of Guelph, kindly volunteered to prepare the data for distribution. The fields with individual identifiable data, such as the institution name, names of campus libraries, local discipline groups, etc. were replaced with masking codes. Subsets of the processed data were also generated by region (Atlantic Canada, Quebec, Ontario, Western Canada) to facilitate comparison. The processed data was made available to members upon request in SPSS or spreadsheet form.

The Consortium also offered to provide individual member libraries with the data set for their own library in SPSS form at no charge. ARL charges an additional fee if a library asks for its data in SPSS form after the initial LibQUAL+™ registration. The consortium was able to provide the data in SPSS form shortly after receiving the data in (CSV) spreadsheet format from ARL.

It is our goal to eventually make the complete masked SPSS data set available to all researchers in a searchable format.

## FUTURE OF THE LIBQUAL CANADA CONSORTIUM

On November 7, 2007, each LibQUAL Canada official contact was asked to complete a survey to assess whether 2007 participants would be interested in doing the survey again. If yes, how frequently and in what form.

With 48 of 54 member institutions having responded, the results<sup>6</sup> indicated that:

- 93.6% of our members wanted to take the LibQUAL+™ survey again as members of the consortium. The remaining respondents were undecided for some of the reasons below.
- While 80% of respondents preferred the LibQUAL+™ survey over developing a home-grown alternative, there was a slight preference among these respondents for a more abbreviated LibQUAL+® Lite survey instrument over the present 22 question-format.
- Regarding the frequency of future consortial surveys, members preferred to do the consortial survey every 2 or 3 years, with 53.5% favouring the longer interval. While the registration fee was not mentioned as a major consideration, the demands on staff time required to plan the survey, review the results, analyze the implications for the library, prepare action plans to address concerns, etc. were often mentioned as concerns.
- While the consortium had excellent representation from Canadian universities, it offered more limited benchmarking value for the small number of community college participants. Adding to the benchmarking challenge for this group of libraries are the widely differing mandates of community colleges among the Canadian provinces, variously serving distance education students, continuing education, international students, students in certificate programmes, diploma programmes, academic programmes etc.
- The online consortial resources and other support generally received very high satisfaction scores for utility, responsiveness and timeliness. However, the ARL LibQUAL+™ manual and the consortial web site did not offer sufficient guidance or examples relating to the needs of community colleges.
- Despite the strong support provided by the consortium, small academic institutions faced the challenge of finding sufficient staff time to assess their own results, review other best practices, plan and effect improvements to services and facilities. It is reasonable for such libraries to question whether to continue collecting LibQUAL+™ data on a regular basis or only do the survey after they have the opportunity to act on the results. Typical of the small library comments was: We need an assessment librarian or someone who has more time to work with the results.
- There was uncertainty among our federal government participants as to the value of the consortium and perhaps the survey itself in meeting their special and diverse needs. The consortium had to work with ARL to develop a cus-

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<sup>6</sup> [http://library.queensu.ca/webir/canlibqual/consortial\\_survey/SurveySummary.html](http://library.queensu.ca/webir/canlibqual/consortial_survey/SurveySummary.html)

tom demographic for the Canadian government libraries to accommodate their many employee classifications and specific terminology. In addition to their small number, our government library members have very different mandates and user populations. One of our members, the Supreme Court of Canada Library, was investigating whether LibQUAL+™ could be customized to the needs of a consortium of the Law Society and Courthouse Libraries in Canada.

## **CONCLUSION**

The 48,000 consortial responses to the 2007 survey provided a rich new resource of assessment data for Canadian academic and research libraries. The availability of such a large data set offers Canadian library researchers a unique opportunity to study Canadian academic service quality data on a granular level not possible from individual library results or even from the combined results of the few past Canadian LibQUAL participants. This data set is large enough to provide opportunities to study potential difference in expectations and perceptions by gender, age, standard discipline group, undergraduate year, library type, region, etc. (e.g. 1st year undergraduates or female graduate students in the humanities).

This data may prove valuable to support advocacy efforts by academic library councils on behalf of their members, with governments and other funding sources.

When the consortium decides to conduct the survey again, probably in 2010, we will have an additional set of valuable time-series data to help libraries assess the success of new cooperative initiatives and changes in client expectations and perceptions over time.

# LES PROGRAMMES ET PROJETS COMMUNS SUR LES STATISTIQUES DANS LES BIBLIOTHEQUES UNIVERSITAIRES DU CANADA

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## RÉSUMÉ

*L'Association des bibliothèques de recherche du Canada (ABRC) et le Sous-comité des bibliothèques de la Conférence des recteurs et des principaux du Québec (CREPUQ) colligent des statistiques communes pour les bibliothèques membres. Les statistiques traditionnelles comme les dépenses, le nombre de volumes imprimés dans les collections, le prêt, la fréquentation et la consultation sur place sont compilées depuis plusieurs décennies. Au cours des dernières années, l'environnement numérique a nécessité que les bibliothèques se dotent de nouveaux indicateurs sur les ressources électroniques. L'ABRC et la CREPUQ travaillent à développer une série de données sur ces ressources : niveau des dépenses et nombre de titres pour les livres, les périodiques et les ouvrages de référence en ligne.*

*La CREPUQ compile depuis 2004 une série de tableaux comparatifs des données relatives aux coûts et à l'utilisation des produits documentaires numériques acquis en commun. Pour offrir une autre perspective que celle offerte par les données quantitatives, l'ABRC a coordonné en 2007 une enquête LibQual+ sur la perception de la qualité des services, ressources documentaires et espaces dans 54 bibliothèques universitaires et gouvernementales canadiennes.*

## ABSTRACT

*Canadian research and academic libraries have been gathering, sharing and publishing statistics for many decades. Traditional statistics such as: expenditures and collection size, and use, facilities and services are well understood and easily recorded by library administrators and staff. However, the growing number of electronic resources is challenging in terms of statistics. How do we capture number of items and expenditures? How do we agree on the best ways to measure use of electronic books and serials? Agreeing on a shared set of statistical data is as important in the electronic environment than it was in the print world.*

*This paper gives information on current projects at the Canadian and Quebec level.*

## INTRODUCTION

Depuis plusieurs décennies, les bibliothèques universitaires canadiennes colligent et publient des données statistiques comparatives que ce soit au niveau national sous l'égide de l'Association des bibliothèques de recherche du Canada (ABRC),

au niveau du Québec par le Sous-comité des bibliothèques de la Conférence des recteurs et des principaux du Québec (CREPUQ) ou par d'autres regroupements provinciaux.

Cet article présente les différentes données statistiques des bibliothèques regroupées sous l'ABRC et la CREPUQ et les activités des comités responsables des statistiques dans ces deux organisations. L'article présente aussi les défis apportés par le virage numérique dans les bibliothèques : comment mesurer adéquatement le nombre et le niveau d'activités reliés aux documents numériques? Nous constatons depuis quelques années une diminution de certains indicateurs dans les bibliothèques, comme le prêt des documents imprimés ou la consultation sur place. Il est important de s'entendre sur de nouveaux indicateurs qui représentent adéquatement l'utilisation des ressources et services documentaires dans les universités.

## **PRÉSENTATION DES ORGANISATIONS RESPONSABLES DES STATISTIQUES**

Les programmes statistiques présentés dans cet article sont sous l'égide de deux regroupements de bibliothèques universitaires.

L'Association des bibliothèques de recherche du Canada (ABRC) regroupe 27 grandes bibliothèques universitaires ainsi que l'Institut canadien de l'information scientifique et technique (ICIST), la Bibliothèque et Archives Canada (BAC) et la Bibliothèque du parlement. Les données statistiques de cet organisme sont colligées et publiées depuis 1969 représentant ainsi près de 40 ans de données comparatives ininterrompues. Elles sont regroupées sous 4 sections : les dépenses et les collections, les services en émergence, l'utilisation, les installations et les services et les salaires du personnel.

Le comité sur l'évaluation de performance et les statistiques est responsable du programme de statistiques de l'ABRC. Il est soutenu par une coordonnatrice permanente de l'Association. Le mandat du comité est le suivant:

- Élaborer et administrer le programme statistique;
- Suivre les développements susceptibles d'intéresser les bibliothèques de recherche en matière d'indicateurs de rendement, d'étalonnage, et de répartition efficace des ressources;
- Renseigner les membres de l'Association sur ce qui se fait en ce domaine;
- Favoriser la discussion sur ces questions parmi les membres;
- Présenter les documents, politiques et recommandations appropriées ;
- Assurer la liaison avec le *Statistics and Measurement Committee* de l'ARL, le *Groupe de travail sur les indicateurs de performance et les aides à la décision* de la CREPUQ et des autres et faire rapport aux membres aux assemblées générales;
- Conseiller la coordonnatrice des statistiques de l'ABRC

Le comité comprend au moins cinq membres de l'ABRC nommés pour un mandat de trois ans renouvelable une fois.

Le Sous-comité des bibliothèques de la Conférence des recteurs et des principaux des universités du Québec (CREPUQ) regroupe les 18 bibliothèques universitaires québécoises ainsi que le siège social de l'Université du Québec. C'est par la mise en commun et le partage de leurs ressources humaines et matérielles que les bibliothèques entendent assurer le développement planifié de leurs collections et de leurs services en vue d'en optimiser l'utilisation par l'ensemble des membres de la communauté universitaire québécoise.

Constitué en 1977, le groupe de travail sur les statistiques maintenant intitulé groupe de travail sur les indicateurs de performance et les aides à la décision, a pour mandat:

- D'assurer la gestion du programme annuel des statistiques générales, des statistiques relatives aux activités de catalogage et celles relatives aux opérations de PEB;
- Réviser régulièrement les formulaires communs de cueillette des données;
- Proposer de nouvelles orientations notamment en ce qui a trait aux pratiques en émergence;
- Identifier ou développer des indicateurs de performance ou des outils d'aide à la décision;
- Identifier les indicateurs de performance comparatifs communs à d'autres regroupements;
- Identifier de nouveaux indicateurs de performance significatifs visant à illustrer et à promouvoir la mission, la valeur et le rôle des bibliothèques universitaires québécoises.

Les tableaux comparatifs des données statistiques annuelles sont publiés depuis 1979–1980.

Le groupe de travail compte présentement 6 représentants de bibliothèques universitaires québécoises et est soutenu dans ses projets par deux permanents de la CREPUQ.

## **LES STATISTIQUES TRADITIONNELLES**

Pour les deux organisations, les enquêtes statistiques publiées depuis de nombreuses années concernent surtout les données traditionnelles. À chaque année, les bibliothèques membres doivent fournir des informations sur leurs ressources humaines, leurs collections, leurs budgets (dépenses de fonctionnement et d'investissement), la superficie des espaces ainsi que l'utilisation des services comme le prêt de documents, le prêt entre bibliothèques, la consultation sur place, les entrées dans les bibliothèques, l'aide et la référence et les sessions de formation documen-

taire. La saisie des données est relativement simple, les formulaires sont disponibles en ligne et peuvent être remplis directement sur le Web. Les deux regroupements partagent régulièrement les résultats de leurs travaux et ont fait l'effort d'harmoniser leurs formulaires respectifs. Ainsi pour une donnée, on fait référence au numéro de la question du formulaire de l'ABRC, de la CREPUQ ainsi que de l'Association of Research Libraries (ARL). L'objectif poursuivi est de simplifier dans la mesure du possible la saisie et la compilation des données. Les questions font l'objet d'une évaluation régulière afin de déterminer si elles sont toujours pertinentes et si les définitions sont claires.

Les publications annuelles sont disponibles aussi bien pour les établissements membres que pour le public intéressé. On peut soit acheter une version imprimée (ABRC et CREPUQ) ou soit consulter une version PDF sur le site Web de la CREPUQ.

Les statistiques CREPUQ présentent plusieurs ratios dans leurs tableaux, ceci permet une comparaison plus adéquate entre les établissements quelque soit leur taille. On peut ainsi recouper les différents indicateurs de la bibliothèque par étudiant ou par professeur.

L'enquête annuelle de l'ABRC ne présente pas ce type de ratios, la difficulté principale étant d'obtenir des données comparables de population étudiante ou professorale au niveau national. Toutefois, une publication spéciale des ratios a déjà été produite dans le passé, la dernière remontant à 2000–2001. Une mise à jour est prévue pour 2006–2007.

Avec chaque édition de la publication annuelle des statistiques, l'ABRC ajoute un texte de commentaires (en anglais et en français) qui fait état de l'évolution de la situation dans les bibliothèques de recherche canadienne et des nouvelles tendances dans les services. Les nouvelles tendances sont également rapportées dans la section sur les services en émergence. Les questions relatives à ces services sont intéressantes pour comprendre l'évolution des technologies dans les bibliothèques. Par exemple en 1998–1999, les questions concernaient la disponibilité d'accès à un catalogue en ligne et à un système intégré de gestion de bibliothèque, à la possibilité de renouveler un prêt à distance par téléphone, à la fourniture de documents par télécopieur ou par courriel et aux nombres de postes de travail avec un accès Web dans les bibliothèques. En 2005–2006, les questions concernent la présence de carrefours de l'information dans les bibliothèques, le financement des projets de numérisation, l'aide à la publication électronique, les services de référence en ligne, l'utilisation d'un logiciel de recherche relayée et le prêt d'équipement comme les ordinateurs portables, les lecteurs de livres électroniques ou autres. Dans les commentaires de la publication de cette même année, on souligne que les services de référence électroniques ont connu une forte expansion, car ils sont offerts dans 28 bibliothèques alors que 20 établissements offrent des services de référence par clavardage. Une question émergente est supprimée dans les questionnaires subséquents quand la pratique est soit enracinée dans une majorité d'établissements ou soit au contraire a décliné et n'est plus offerte. Dans l'un ou

l'autre cas, on juge alors qu'il n'est plus intéressant de colliger la donnée et elle peut être remplacée par une autre.

Nombre de documents par étudiant en équivalent temps complet									
Établissements	Étudiants	Nombre total d'unités physiques		Documents mixtes		Monographies achetées durant l'année		Abonnements à des publications en série	
	N.	N.	par étudiant	N.	par étudiant	N.	par étudiant	N.	par étudiant
Bishop's University <sup>1</sup>	3 022,5	598 888	198,1	24 404	8,1	3 724	1,2	19 553	6,5
Concordia University	23 769,7	5 235 759	220,3	60 322	2,5	146 417	6,2	44 943	1,9
McGill University	23 796,1	6 790 633	285,4	607 815	25,5	56 173	2,4	49 897	2,1
Université de Montréal	31 631,7	4 205 287	132,9	174 723	5,5	26 249	0,8	25 576	0,8
HEC Montréal	7 911,2	385 135	48,7	4 542	0,6	2 536	0,3	3 684	0,5
École Polytechnique	4 114,0	319 194	77,6	13 500	3,3	20 491	5,0	6 431	1,6
Total UdeM	43 656,9	4 909 616	112,5	192 765	4,4	49 276	1,1	NA	NA
Université de Sherbrooke	16 010,2	2 370 176	148,0	185 947	11,6	8 612	0,5	20 774	1,3
Université Laval	28 217,7	4 760 913	168,7	572 497	20,3	37 034	1,3	32 158	1,1
Université du Québec									
U. Q. à Chicoutimi	4 152,9	1 129 917	272,1	101 091	24,3	3 919	0,9	18 916	4,6
U. Q. à Montréal	25 215,0	3 829 313	151,9	1 145 974	45,4	22 756	0,9	8 658	0,3
U. Q. à Rimouski	3 362,4	491 957	146,3	112 942	33,6	4 478	1,3	14 233	4,2
U. Q. à Trois-Rivières	7 624,0	1 523 561	199,8	170 469	22,4	6 498	0,9	21 758	2,9
U. Q. en Abitibi-Témiscamingue	1 508,7	266 508	176,6	12 345	8,2	4 303	2,9	220	0,1
U. Q. en Outaouais	3 526,6	293 780	83,3	14 287	4,1	7 156	2,0	11 300	3,2
École nationale d'administration publique <sup>2</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND
École de technologie supérieure	3 968,3	74 038	18,7	5 079	1,3	782	0,2	7 671	1,9
INRS	304,0	51 444	169,3	1 631	5,4	432	1,4	6 282	20,7
Télé-université	3 292,7	14 200	4,3	222	0,1	221	0,1	2 687	0,8
Total UQ	52 954,5	7 674 718	144,9	1 564 040	29,5	50 545	1,0	NA	NA
<b>TOTAL</b>	<b>191 427,6</b>	<b>32 340 703</b>	<b>168,9</b>	<b>3 207 790</b>	<b>53,2</b>	<b>351 781</b>	<b>1,8</b>	<b>294 741</b>	<b>1,5</b>
Bibliothèque et Archives nationales du Québec	NA	6 639 273	NA	529 382	NA	76 049	NA	27 489	NA

<sup>1</sup> L'université Bishop's loue ses services de bibliothèque au Champlain Regional College, Campus de Lennoxville. Des modifications ont été apportées aux statistiques pour tenir compte de cette réalité.

<sup>2</sup> Compte tenu d'un incendie, les données de l'ENAP sont absentes de ce tableau.

Figure 1: Exemple de tableau des statistiques générales 2006–2007 du Sous-comité des bibliothèques de la CREPUQ.

Pour sa part, la publication des statistiques générales des bibliothèques universitaires québécoises comprend des tableaux comparatifs et des graphiques sur l'évolution des bibliothèques sur les 15 dernières années. Ainsi en 2004–2005, l'évolution entre 1990 et 2005 est présentée pour les dépenses, les effectifs en ressources humaines, les ressources documentaires et matérielles et leur utilisation. Il s'agit d'une source d'information très pertinente pour quiconque s'intéresse au développement des bibliothèques. Un exemple parmi d'autres : les dépenses totales en achat de monographies sont passées de 8M\$ en 1990–1991 à 11,8M\$ en 2004–2005 alors que les dépenses des publications en série pour la même période sont passées de 14,3M\$ à près de 33M\$.

À la CREPUQ, les statistiques de catalogage et relatives aux opérations de prêt et d'emprunt entre les bibliothèques universitaires québécoises (PEB) font l'objet de publications séparées. En ce qui concerne le PEB, le nouveau système commun VDX (Colombo) a nécessité le paramétrage des rapports statistiques disponibles aux utilisateurs. Ainsi même pour la gestion de statistiques traditionnelles comme le PEB, tout changement de système impliquera une révision de la cueillette des données.

## LES NOUVEAUX INDICATEURS

Pour les bibliothèques universitaires canadiennes, la prise de statistiques est maintenant bien ancrée dans les habitudes. Cependant, il s'avère important d'ajouter ou même de remplacer les séries d'indicateurs traditionnels par d'autres qui reflètent l'environnement numérique.

Déjà les statistiques de l'ABRC comprennent certaines données sur les ressources numériques : le nombre de monographies électroniques, le nombre de monographies électroniques achetées, le nombre de titres de périodiques électroniques, le nombre de titres de périodiques électroniques provenant d'agrégateurs, les dépenses pour l'achat de monographies électroniques et pour les périodiques électroniques.

Aussi simples qu'elles paraissent ces données ne sont pas faciles à recueillir pour les bibliothèques. En fait foi le récent travail effectué par le groupe IPAD à la CREPUQ afin de colliger ces mêmes données. Deux questionnaires complémentaires sur les ressources électroniques, un relatif aux dépenses et l'autre au nombre de titres ont été testés au cours de l'hiver 2008 auprès de plusieurs bibliothèques universitaires québécoises. Le questionnaire sur les dépenses vise à recueillir les informations suivantes : achats de périodiques électroniques courants, dépenses récurrentes et non récurrentes d'ouvrages de référence électroniques, dépenses récurrentes et non récurrentes de livres électroniques et le total des dépenses. Enfin, un ratio des dépenses en ressources électroniques sur le total de toutes les dépenses en ressources documentaires est calculé. Plusieurs versions des définitions et du questionnaire ont été nécessaires afin d'en arriver à un document le plus clair possible. Par exemple, on a précisé que les dépenses pour les périodiques à l'intérieur des collections des agrégateurs n'étaient pas incluses dans le calcul des périodiques, mais dans celui des ouvrages de référence. La version finale a été envoyée aux bibliothèques ce printemps et nous savons déjà que certains établissements ne seront pas en mesure de répondre à toutes les questions parce que leur structure budgétaire n'a pas été conçue pour discriminer entre les différents types de dépenses (récurrentes vs non récurrentes). On demande aux établissements d'indiquer la donnée disponible la plus précise et lorsque cela n'est pas possible, d'indiquer la donnée générale.

Le questionnaire relatif au nombre de documents électroniques dans les collections est encore à l'essai. Afin de cerner sur une base comparative la donnée du nombre de titres uniques de périodiques électroniques, le groupe de travail a proposé une procédure commune utilisant la base de connaissance SFX de chaque établissement après l'application de la mise à jour de mai 2008. Les détails de la méthode ont été acheminés à chaque bibliothèque et les résultats seront évalués par le groupe de travail. Le nombre d'ouvrages de référence en ligne et de livres électroniques est également requis, mais cette fois-ci la méthode de calcul est au choix de chaque bibliothèque.

	Print monographs	Electronic monographs	Total monographs	Print Serials	Electronic serials	Total Serials
Question	5.1	5.2		5.3	5.4	
British Columbia	2 591 325	320 081	2 911 406	4 376 300	8 234 386	12 610 686
Simon Fraser	2 925 641	224 802	3 150 443	2 498 098	2 298 626	4 796 724
Victoria	1 206 071	76 184	1 967 920	904 457	3 258 987	4 163 444
<b>Provincial average</b>	<b>\$2 241 012</b>	<b>\$435 577</b>	<b>\$2 676 590</b>	<b>\$2 592 952</b>	<b>\$4 597 333</b>	<b>\$7 190 285</b>
Alberta <sup>59</sup>	5 370 123 <sup>60</sup>	80 313	6 350 436	2 708 477	7 167 069	9 875 546
Calgary	2 689 893	556 193	3 246 086	2 176 920	4 516 563	6 693 483
Manitoba	1 681 689	300 978	1 982 667	2 056 924	3 098 398	5 155 322
Regina	980 826	27 051	1 007 877	447 041	1 470 618	1 917 659 <sup>61</sup>
Saskatchewan	2 530 395	19 435	2 549 830	1 721 962	4 566 908	6 288 870
<b>Regional average</b>	<b>\$2 650 585</b>	<b>\$376 794</b>	<b>\$3 027 379</b>	<b>\$1 822 265</b>	<b>\$4 163 911</b>	<b>\$5 986 176</b>
Carleton	979 761	N/A <sup>62</sup>	979 761	765 354	2 626 138	3 391 492
Guelph	1 214 493	194 803 <sup>63</sup>	1 409 296	346 568	3 427 390	3 773 958
McMaster	1 120 202	443 584	1 563 786	1 213 870	4 415 501	5 629 371
Ottawa	2 685 792	U/A	2 685 792	1 721 904	4 199 276	5 921 180
Queen's	1 406 799	U/A	1 406 799	1 902 383	5 207 822	7 110 205

Figure 2: Extrait d'un tableau des statistiques 2005–2006 de l'ABRC

En parallèle de ces travaux, d'autres indicateurs sont à développer pour mesurer l'utilisation des ressources électroniques. À cet égard, le questionnaire complémentaire de l'ARL présente un modèle intéressant : l'utilisation est mesurée par le nombre de transactions de référence en ligne, le nombre de sessions ou de recherches à des banques de données, au nombre d'articles en texte intégral téléchargés et au nombre de visites au site Web de la bibliothèque et au catalogue. Aussi bien à la CREPUQ qu'à l'ABRC, le questionnaire de l'ARL sera utilisé comme référence de base. À l'ABRC, un sous-comité de travail a été créé afin de déterminer quelles nouvelles données comparatives seraient utiles aux bibliothèques. À la CREPUQ, une consultation aura lieu sous peu afin de recueillir de l'information sur les outils de mesure Web présentement utilisés dans les bibliothèques.

## TABLEAUX COMPARATIFS DE DONNÉES RELATIVES AUX COÛTS ET À L'UTILISATION DES PRODUITS DOCUMENTAIRES ACQUIS EN COMMUN

Depuis 2004, le groupe de travail sur le développement des collections de la bibliothèque universitaire et de recherche virtuelle québécoise (DCBV) du Sous-comité des bibliothèques de la CREPUQ se penche sur l'utilisation et les coûts des ressources documentaires électroniques acquises en consortium. En utilisant les données Counter recueillies par les fournisseurs et en comparant avec le coût de l'abonnement pour chaque bibliothèque, on obtient des tableaux très intéressants sur le rapport coût/utilisation par usager pour chaque bibliothèque.

Les figures ci-dessous présentent les résultats de cette analyse pour la banque de données Emerald Insight (MCB University Press) en 2005–2006. Pour 2007–08, la quatrième compilation comprendra 23 produits documentaires acquis soit par l’entremise du consortium de la CREPUQ soit par le consortium du Réseau canadien de documentation pour la recherche (RCDR).

Ces données permettent aux bibliothèques de mieux déterminer si l’achat d’une ressource documentaire est rentable compte tenu de son coût et de son utilisation par la communauté universitaire. Assez lourde à mettre en place au départ, l’analyse est compilée centralement et relativement aisée à mettre à jour avec les nouvelles données de l’année. Elle ne demande aucune intervention de la part des bibliothèques. Les commentaires reçus par les responsables des bibliothèques sur ce type d’analyse sont très positifs.

## **ENQUÊTE LIBQUAL+™ EN CONSORTIUM**

En 2007, en complément des données statistiques quantitatives, l’ABRC a coordonné une enquête LibQual+ en consortium. La participation fut excellente : cinquante-quatre bibliothèques universitaires et gouvernementales canadiennes ont participé à l’enquête. LibQual+ évalue la perception de la qualité des espaces physiques, des ressources documentaires et des équipements ainsi que le service donné par le personnel

L’approche en consortium a permis aux établissements de profiter de l’expertise d’un coordonnateur au niveau national, monsieur Sam Kalb de l’Université Queen’s, d’échanger grâce à une liste de diffusion et à un site Web et de participer à des ateliers spécialisés. Chaque établissement peut comparer ses résultats avec un établissement étalon ou à un groupe d’établissements. L’ABRC et la CREPUQ ont fait compiler par l’ARL les résultats communs pour les bibliothèques membres de leur regroupement.

## **CONCLUSION**

Les statistiques comparatives ont démontré leur utilité dans le passé. Afin que ces statistiques demeurent pertinentes dans l’environnement numérique, les bibliothèques doivent réviser régulièrement les données qui sont traditionnellement colligées. Les travaux en comités et le partage d’information entre les groupes responsables de la compilation des données statistiques sont indispensables pour aider les bibliothèques à évaluer leurs services et à justifier les ressources qui leur sont allouées.

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Emerald Insight (MCB Univ. Press) : analyse coût/utilisation 2005–2006					
Établissements	Données				
	Professeurs	EEETP	EEETP ÉS	Coût annuel	Documents téléchargés
<b>BISHOP'S</b>	114	2,379.40	4.70	784.67 \$	263
<b>CONCORDIA</b>	869	23,067.80	2,942.40	8,149.13 \$	6,210
<b>LAVAL</b>	1,403	28,545.20	6,070.20	10,952.83 \$	2,345
<b>McGILL</b>	1,595	23,497.10	6,288.70	8,694.38 \$	6,947
<b>SHERBROOKE</b>	854	14,350.50	3,664.90	4,836.83 \$	3,030
<b>MONTRÉAL</b>	1,449	31,371.30	6,765.10	8,247.82 \$	3,503
<b>HEC MONTRÉAL</b>	208	7,804.60	1,674.30	5,640.11 \$	7,861
<b>POLYTECHNIQUE</b>	216	3,960.20	970.30	1,387.67 \$	2,635
<b>Total Mtl+HEC+Poly</b>	1,873	43,136.10	9,409.70	15,275.60 \$	13,999
<b>UQAT</b>	96	1,324.80	168.40	616.56 \$	98
<b>UQAC</b>	216	4,177.50	539.60	1,662.19 \$	151
<b>UQO</b>	166	3,490.60	568.40	1,453.04 \$	473
<b>UQAM</b>	914	25,372.60	3,497.90	11,638.41 \$	5,501
<b>UQAR</b>	177	3,248.00	409.30	1,185.63 \$	247
<b>UQTR</b>	316	7,214.60	773.40	2,749.52 \$	2,007
<b>INRS</b>	–	–	–	–	–
<b>ENAP</b>	41	667.10	667.10	913.77 \$	863
<b>ETS</b>	146	3,704.00	373.50	777.17 \$	962
<b>TÉLÉ-UNIV.</b>	43	2,771.90	197.20	1,294.12 \$	126
<b>Total UQ</b>	2,115	51,971.10	7,194.80	22,290.41 \$	10,428
<b>Total</b>	8,823	186,947.20	35,575.40	70,983.85 \$	43,222
<b>Minimum</b>	41	667.10	4.70	616.56 \$	98
<b>Maximum</b>	1,595	31,371.30	6,765.10	11,638.41 \$	7,861
<b>Moyenne</b>	519	10,996.89	2,092.67	4,175.52 \$	2,542

Figure 3a : Analyse coût/utilisation d'Emerald Insight en 2005–2006 pour les bibliothèques universitaires du Québec (1)

<b>Emerald Insight (MCB Univ. Press) : analyse coût/utilisation 2005–2006</b>					
<b>Établissements</b>	<b>Analyse</b>				<b>Analyse</b>
	<b>% des coûts</b>	<b>% de l'utilisation</b>	<b>Coût par document</b>	<b>Coût par professeur</b>	<b>Coût par EEETP</b>
<b>BISHOP'S</b>	1.1%	0.6%	2.98 \$	6.88 \$	0.33 \$
<b>CONCORDIA</b>	11.5%	14.4%	1.31 \$	9.38 \$	0.35 \$
<b>LAVAL</b>	15.4%	5.4%	4.67 \$	7.81 \$	0.38 \$
<b>McGILL</b>	12.2%	16.1%	1.25 \$	5.45 \$	0.37 \$
<b>SHERBROOKE</b>	6.8%	7.0%	1.60 \$	5.66 \$	0.34 \$
<b>MONTRÉAL</b>	11.6%	8.1%	2.35 \$	5.69 \$	0.26 \$
<b>HEC MONTRÉAL</b>	7.9%	18.2%	0.72 \$	27.12 \$	0.72 \$
<b>POLYTECHNIQUE</b>	2.0%	6.1%	0.53 \$	6.42 \$	0.35 \$
<b>Total Mtl+HEC+Poly</b>	21.5%	32.4%	1.09 \$	8.16 \$	0.35 \$
<b>UQAT</b>	0.9%	0.2%	6.29 \$	6.42 \$	0.47 \$
<b>UQAC</b>	2.3%	0.3%	11.01 \$	7.70 \$	0.40 \$
<b>UQO</b>	2.0%	1.1%	3.07 \$	8.75 \$	0.42 \$
<b>UQAM</b>	16.4%	12.7%	2.12 \$	12.73 \$	0.46 \$
<b>UQAR</b>	1.7%	0.6%	4.80 \$	6.70 \$	0.37 \$
<b>UQTR</b>	3.9%	4.6%	1.37 \$	8.70 \$	0.38 \$
<b>INRS</b>	–	–	–	–	–
<b>ENAP</b>	1.3%	2.0%	1.06 \$	22.29 \$	1.37 \$
<b>ETS</b>	1.1%	2.2%	0.81 \$	5.32 \$	0.21 \$
<b>TÉLÉ-UNIV.</b>	1.8%	0.3%	10.27 \$	30.10 \$	0.47 \$
<b>Total UQ</b>	31.4%	24.1%	2.14 \$	10.54 \$	0.43 \$
<b>Total</b>	100.0%	100.0%	–	–	–
<b>Minimum</b>	0.9%	0.2%	0.53 \$	5.32 \$	0.21 \$
<b>Maximum</b>	16.4%	18.2%	11.01 \$	30.10 \$	1.37 \$
<b>Moyenne</b>	5.9%	5.9%	3.31 \$	10.77 \$	0.45 \$

Figure 3b : Analyse coût/utilisation d'Emerald Insight en 2005–2006 pour les bibliothèques universitaires du Québec (2)

<b>Emerald Insight (MCB Univ. Press) : analyse coût/utilisation 2005–2006</b>				
<b>Établissements</b>	<b>Analyse</b>			
	<b>Coût par EEETP (ÉS)</b>	<b>Document par professeur</b>	<b>Document par EEETP</b>	<b>Documents par EEETP (ÉS)</b>
<b>BISHOP'S</b>	166.95 \$	2.31	0.11	55.96
<b>CONCORDIA</b>	2.77 \$	7.15	0.27	2.11
<b>LAVAL</b>	1.80 \$	1.67	0.08	0.39
<b>McGILL</b>	1.38 \$	4.36	0.30	1.10
<b>SHERBROOKE</b>	1.32 \$	3.55	0.21	0.83
<b>MONTRÉAL</b>	1.22 \$	2.42	0.11	0.52
<b>HEC MONTRÉAL</b>	3.37 \$	37.79	1.01	4.70
<b>POLYTECHNIQUE</b>	1.43 \$	12.20	0.67	2.72
<b>Total Mtl+HEC+Poly</b>	1.62 \$	7.47	0.32	1.49
<b>UQAT</b>	3.66 \$	1.02	0.07	0.58
<b>UQAC</b>	3.08 \$	0.70	0.04	0.28
<b>UQO</b>	2.56 \$	2.85	0.14	0.83
<b>UQAM</b>	3.33 \$	6.02	0.22	1.57
<b>UQAR</b>	2.90 \$	1.40	0.08	0.60
<b>UQTR</b>	3.56 \$	6.35	0.28	2.60
<b>INRS</b>	–	–	–	–
<b>ENAP</b>	1.37 \$	21.05	1.29	1.29
<b>ETS</b>	2.08 \$	6.59	0.26	2.58
<b>TÉLÉ-UNIV.</b>	6.56 \$	2.93	0.05	0.64
<b>Total UQ</b>	3.10 \$	4.93	0.20	1.45
<b>Total</b>	–	–	–	–
<b>Minimum</b>	1.22 \$	0.70	0.04	0.28
<b>Maximum</b>	166.95 \$	37.79	1.29	55.96
<b>Moyenne</b>	12.31 \$	7.08	0.30	4.66

Figure 3c : Analyse coût/utilisation d'Emerald Insight en 2005–2006 pour les bibliothèques universitaires du Québec (3)

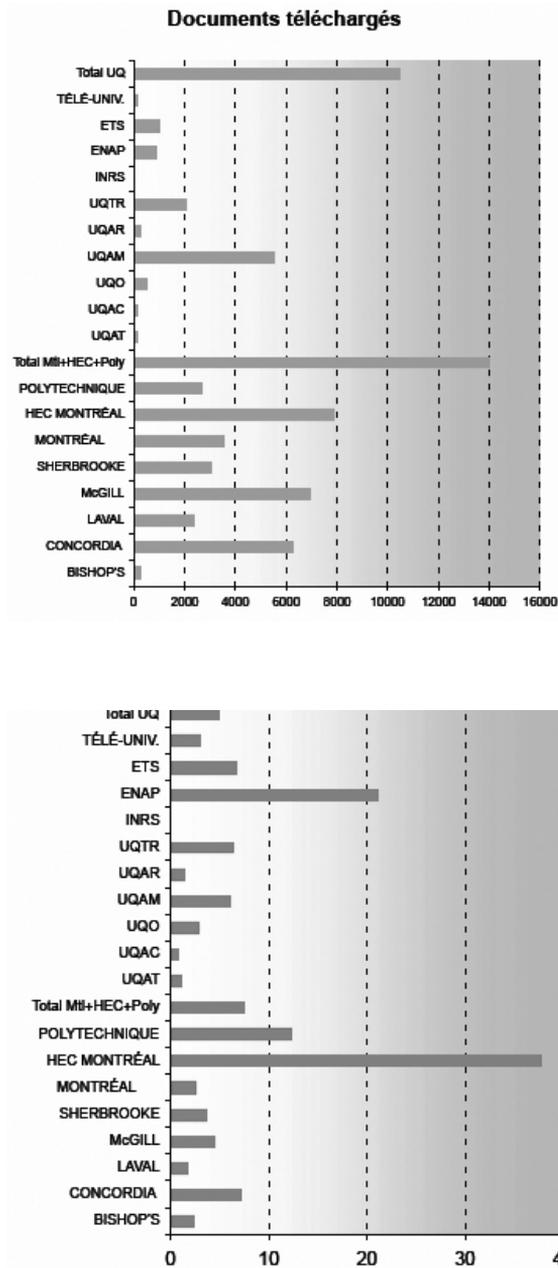


Figure 4: Documents téléchargés et ratio par professeur pour Emerald Insight en 2005–2006 par bibliothèque

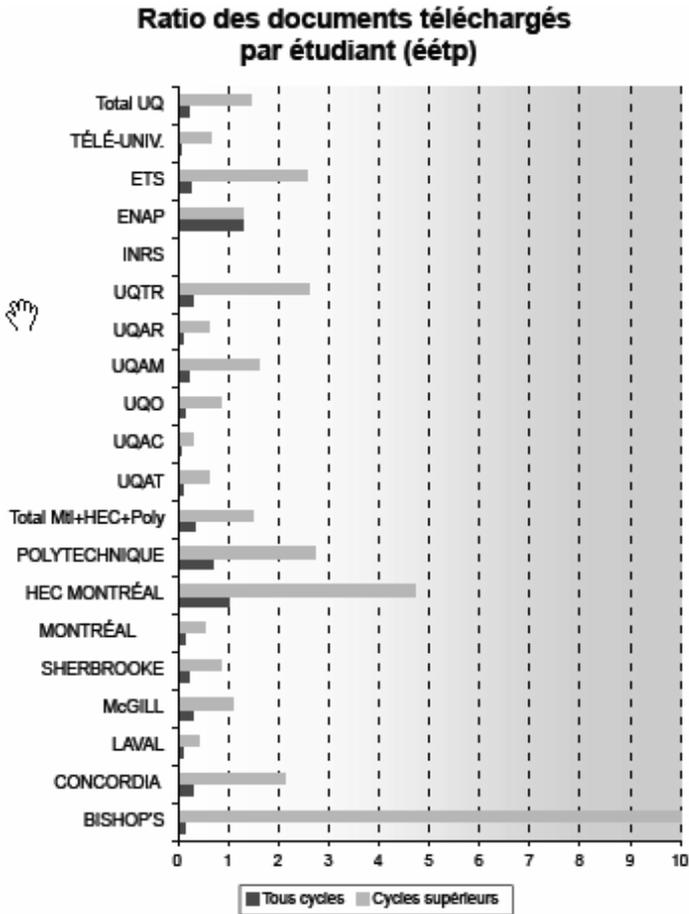


Figure 5 : Ratio des documents téléchargés par étudiants selon les cycles pour Emerald Insight en 2005–2006

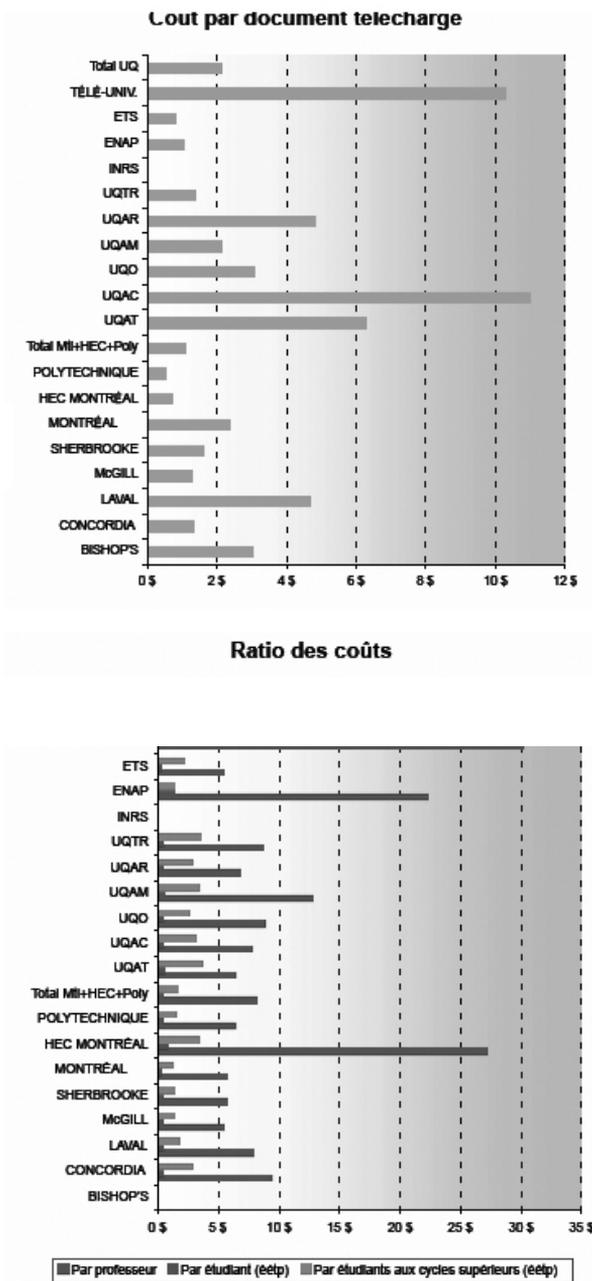


Figure 6: Coût par document et ratio des coûts par professeur et étudiant pour Emerald Insight en 2005–2006

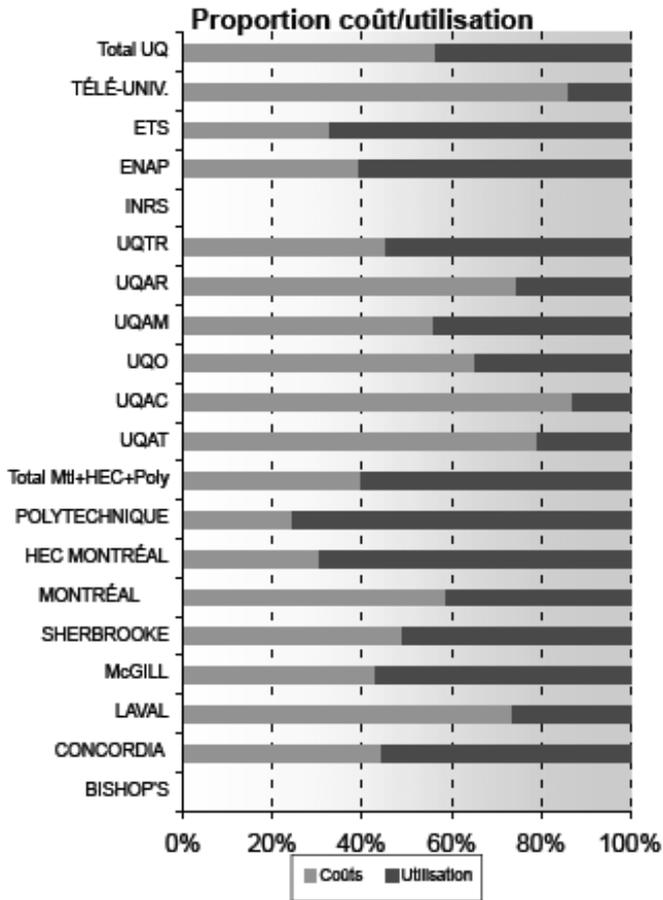


Figure 7 : Proportion coût/utilisation pour Emerald Insight en 2005–2006

# TEN YEARS OF EXPERIENCE WITH BENCHMARKING IN DUTCH ACADEMIC LIBRARIES

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## ABSTRACT

*In 2008, the thirteen university libraries in the Netherlands have almost ten years of experience with benchmarking. Raw data on expenditures, provision of information resources and facilities, processing activities and use of information resources, are gathered on an Excel spreadsheet. Based on these raw data, 26 indicators are being calculated. Further analysis focuses on the fourteen most relevant indicators. By normalizing the values and presenting the results in a bar graph, each library can identify its own weak and strong points at a glance. By comparing the current values with those obtained in earlier years, each library can easily determine in which respects it has been improving. By comparing aggregate raw data or median values of the indicators throughout the years, general trends can be determined.*

## INTRODUCTION

Between 1990 and 1994, the thirteen university libraries in the Netherlands gathered statistical data on variables such as expenditures, population, library staff, size of the collection, retrospective cataloguing, loans, ILL, reference transactions and online searches by intermediaries. The project was discontinued as it was considered labour-intensive and of little practical importance. In the nineties of the last century the benchmarking philosophy began to flourish and in 1998 a benchmarking project was started. An instrument and an extensive manual were developed in close collaboration with six of the thirteen libraries. The instrument was implemented in 2000. It contained some of the items of the earlier statistics questionnaire, some new and more practical items on topics such as book processing, and two short questionnaires to measure user activities and user satisfaction. Again, data gathering proved to be very laborious. Not all libraries participated and some questions remained unanswered. Therefore, in 2003 an abridged version of the instrument was developed. This version is still being used today, although each year slight modifications are made, in order to keep pace with new developments. More detailed information on the early years can be found in Voorbij (2000).

## RAW DATA

The current version includes twelve larger topics. Table 1 shows the most important questions, plus the data on 2006 from five of the thirteen libraries. Some questions merit further attention:

*1.4 Size of the population.* The size of the population is automatically calculated by the formula “number of students +  $5/4 \times$  fte academic staff.” This formula is based on an earlier finding that, on average, 1 academic staff member equals 0.8 fte.

*2.1 Library expenditures.* Library expenditures are based upon the annual report of the library. In case some overhead costs, such as costs for cleaning or security have not been registered, the direct personnel costs should be added with a fixed percentage.

*3.2.1 Printed journal expenditures.* Ideally, all libraries use the same definition of journals. In reality, some include book serials, multi-volume works or loose leafs. These differences make true comparison of expenditures on printed journals or the number of current printed journals (5.3) difficult. The least that can be done is to ask libraries which categories of serials are included.

*3.2.2 Electronic journals expenditures.* Costs for printed and electronic journals are interwoven when libraries receive both versions of the same journal. Ideally, all licence costs for e-journals, whether or not accompanied by the printed version, are registered here. In reality, libraries may consider some journals as primarily a printed journal with a free e-version and register the subscription costs under 3.2.1.

*5.4 Number of electronic journals.* Journals that are part of a package but would not have been selected separately should be included. Ceased journals that still are part of a package should be included. Free internet journals should be included only when the content has been downloaded to the library server. The same journal, received from different suppliers, should be counted as one.

*6.2 Book processing time.* Take a sample of at least 200 books that have been received recently. Note the date of arrival on a slip and put the slip inside the book. Note the date when the book is ready for shelving and calculate the number of days between these two dates. Rank the books according to the number of processing days, starting with the lowest number. If 200 books are involved, determine the number of processing days needed for the books at the positions 100, 160 and 180. These are the number of processing days needed for 50, 80 and 90% of the sample. Of course, recording both dates in the automated library system would be much easier. Some systems, however, keep only the latest date of mutation of a catalogue record.

*7. Repositories and METIS.* This topic was included in the questionnaire last year and illustrates the difficulties inherent to new measures. The intention was to determine the percentage of the research output of the faculty available in the repository of the university (7.2 / 7.3). However, it appeared that in some cases repositories are filled not only with publications from faculty, but also with other types of documents from the university and documents from other institutions. As a result, one library obtained a coverage of 271%.

*9. Loans.* A very basic measure, but again different libraries apply different definitions. They may or may not include renewals, reservations and interlibrary loans.

*11.5 Number of searches in online bibliographic databases / 12.3 Number of electronic articles downloaded from journal packages.* Some databases and journal packages are available to all or most libraries. It is more useful and feasible to compare use statistics of specific electronic resources than to compare total use of electronic resources, the more so since not all suppliers provide libraries with use statistics.

## RELIABILITY CHECK

Large differences between similar libraries or between consecutive years may indicate that the data is incorrect. Table 2 gives some examples of data that needed to be checked:

- Comparing the library expenditures with and without housing costs (2.1.1. and 2.1.2), it was found that the share of housing costs varies from 1 to 49%.
- While most libraries report a decline of expenditures for printed journals, library C reports an increase of 55% (3.2.2) and, at the same time a decrease of expenditures for electronic journals with 32% (3.2.3).
- Two similar libraries (A and C) report very dissimilar expenditures for other e-resources (3.3: bibliographic databases, e-books)
- Library E reports an enormous increase in the number of monograph acquisitions (5.2) and at the same time a slight decrease in the expenditures for printed monographs (not shown in table 2). As a result, the average book price for library E is extremely low.
- Library C reports an enormous increase of the number of electronic journals (5.4) and, at the same time a strong decrease in the expenditures for electronic journals (3.2.3).
- Library E reports an enormous decrease in the size of book processing staff (6.1), while the number of monograph acquisitions grew enormously (5.2).

As a result of this second round, many data have been adjusted. Of course, deviant values may reflect reality and do not necessarily have to be wrong.

## PERFORMANCE INDICATORS AND BEST PRACTICES

Raw data are converted to performance indicators in order to enable libraries to compare their performance with other libraries. Some raw data, such as opening hours, book processing time or number of interlibrary loans can be used as indicators without further treatment. In total, 26 indicators are calculated automatically. These are divided in four categories:

- A. Financial and human resources
- B. Supply of library products, facilities and services
- C. Efficiency of internal processes
- D. Use of library products, facilities and services

Further analysis focuses on the fourteen most relevant indicators (see Table 3 for an overview).

Table 4 shows how indicator D2 (number of loans per capita) is analyzed. Column 1 lists the libraries, column 2 the numerator, column 3 the denominator, column 4 the resulting performance indicator. Then, mean and median of the performance indicator are calculated and both are assigned a value of 100. Next, mean relative values and median relative values are calculated for each library. For example, the median number of loans per capita is 6.72. Library G obtained an absolute value of 10.71 loans per capita. This value can now be converted in a median relative value of 159. Columns 5 and 6 show the mean and median relative values for each library.

The same procedure is followed for the other thirteen indicators. By normalizing the values in this manner, a bar graph can be created for each library, which shows the relative position on the fourteen indicators of the library at a glance. Such a visual presentation enables libraries to identify their own weak and strong points immediately. Figure 1 shows the median relative values on fourteen indicators from library G. Note that the median relative value of 159 on indicator D2 can be seen back here. At a glance, it can be seen that the library performs particularly well on indicators D4, D3 and C1, and somewhat below average on indicator A5. Libraries find this presentation very helpful.

Converting absolute values to relative median values also enables to identify best practices. When best practices are – arbitrarily – defined as median relative score of 175 or higher, then in 2006 fifteen performances may be classified as best practices. These are depicted in table 5. Further analysis shows, however, that these high values do not necessarily refer to outstanding performances. For example, the high value of library J on indicator D4 (number of articles supplied by library – ILL) is simply caused by its national responsibility for this task. And the high use of Web of Science and Science Direct per capita by library M is probably caused by a deviant composition of the population. The staff – students ratio of the median university amounts to 1 : 8.2, while the staff – students ratio at university M is 1 : 4.1. These findings demonstrate that not each outstanding performance can be considered as a benchmark which helps other libraries to improve their own performance.

## **TREND ANALYSIS FOR INDIVIDUAL LIBRARIES**

By comparing the values obtained in the period from 2003 to present, each library may identify changes in its position over time. Table 6 shows the median relative

values for library D. The last column shows changes exceeding plus/minus 20 percent between 2006 and 2005. It can be seen that the library improved its position on indicators A1 (expenditures library / expenditures university) and B1 (collection expenditures per capita). However, upon inquiry it appeared that in previous years library and collection expenditures did not include the humanities and law faculty. Therefore, these changes signify progress in data gathering rather than performance. The table also shows a decrease in the relative position on indicators C2.2 (book processing time) and D4 (number of articles supplied by library – ILL). The median relative value for indicator D8 (number of searches in Web of Science per capita) is below average. An explanation may be that the library also subscribes to Scopus, which can be considered as an alternative to Web of Science. Figure 2 presents a visual presentation.

In addition to changes in median relative values, changes in absolute values are calculated. A library may improve its performance, but at the same time deteriorate its relative position, when other libraries exhibit stronger improvements. In library D, the number of articles viewed in Science Direct per capita increased from 26.33 in 2005 to 32.29 in 2006 (+23%). This increase in absolute value hardly resulted in an increase in the median relative value: 134 in 2005 and 141 in 2006 (+ 5%). The reason, obviously, is that in other libraries also more articles per capita have been viewed.

## **GENERAL TREND ANALYSIS**

General trends can be determined in two ways. First, by comparing the median values of the indicators throughout the years. As Table 7 demonstrates, per indicator the median value in 2003 is set as 100. Next, index numbers for the median values for consecutive years are calculated. For example, the median value for indicator D2 (number of loans per capita) in 2003 is 7.45. This value is converted to an index number of 100. The median values for the consecutive years are 7.34, 7.16 and 6.72 respectively or, expressed as index numbers, 99, 96 and 90. It may be concluded the number of loans per capita slightly decreased during the past four years. The biggest changes refer to C2.2 (book processing time; index number 225 in 2006) and D9 (number of articles viewed in Science Direct per capita; index number 173 in 2006). The last column in Table 7 depicts the changes between 2005 and 2006. Figure 3 is a graphical presentation. For sake of clarity, separate graphs have been created for changes between 2003 and 2006, and between 2005 and 2006.

An alternative manner for presenting general trends is by comparing aggregate raw data throughout the years. Inspired by the ARL statistics (Kyrillidou and Young, 2006), clusters of related variables are compiled. For example, as illustrated in figure 4, a single line graph has been created which clearly shows the relative changes in the use of library resources. Between 2004 and 2006, the use of

electronic resources increased steadily; the number of loans did not change despite the growth in monograph acquisitions; ILL lending, in particular for articles, has diminished. Note that the graph shows aggregate raw data, no indicators.

Librarians find these trend analyses valuable. In most cases, they confirm what was expected. However, the availability of basic objective data is a necessary prerequisite both for historical research and for extrapolation of future developments. Arguably, trend analysis may be more important for librarians than real benchmarking. In retrospect, it may be said that the performance indicators were chosen with this in mind. For some indicators, in particular those in category A, it cannot be said that larger is better. They fulfil a role as a statistical tool rather than a benchmarking tool.

## CONCLUSIONS

Almost ten years after the start of the benchmarking program, experiences are only moderately positive.

1. Although the raw data set was developed in close collaboration with the participating libraries, and although libraries should be familiar with the instrument for almost ten years, data gathering is still being considered as very laborious and the reliability of some data, in particular data on expenditures, is still doubtful.
2. Although some best practices could be identified, these do not necessarily refer to outstanding performances. They may simply be the consequence of national responsibilities, differences in the composition of the population or other circumstances that cannot be influenced by libraries. Actually, so far there are very few documented examples of real benchmarking: improving one's own performance by learning from other libraries.
3. Benchmarking does enable libraries to compare their own performance with those of others and identify weak and strong points. Although these insights do not necessarily lead to activities to improve the performance, they do enable libraries to interpret their scores as good or bad. An attractive visual presentation of the results may be very helpful in reaching that goal.
4. General trends may become visible by comparing the aggregate results from the libraries as a group year by year. In this respect, benchmarking data is being used just as statistical data, without the underlying philosophy of improving performance by learning from outstanding organizations. Any objective trend analysis requires the availability of statistics.

It may be concluded that benchmarking is important and should be continued because it offers libraries a base to compare their performance with other libraries and it makes trends during the years visible. On the other hand, the purpose of improving performance by learning from outstanding libraries seems much too ambi-

tious. Also, the required data set should be limited to a minimum in order to encourage cooperation and stimulate the delivery of reliable data.

## **REFERENCES**

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Table 1. Sample of raw data, and values from five libraries

<b>1 University: expenditures and size of the population</b>						
	A	C	E	F	K	
1.1.1	Expenditures, incl. housing costs (x 1000 )	545,400	413,300	407,800	294,242	247,500
1.1.2	Expenditures, excl. housing costs (x 1000 )	515,403	379,313	386,300	279,714	208,700
1.2	Number of students	25,667	17,630	17,971	11,616	7,044
1.3	Fte academic staff	2,542	1,825	1,792	1,465	1,700
1.4	Size of the population (automat. calculated) 28,845		19,911	20,211	13,447	9,169
<b>2 Library: expenditures and size of staff</b>						
	A	C	E	F	K	
2.1.1	Expenditures, incl. housing costs (x 1000 )	19,987	13,429	9,816	11,636	?
2.1.2	Expenditures, excl. housing costs (x 1000 )	13,383	13,337	9,788	9,162	5,496
2.2	Collection expenditures (x 1000 ) 4,600		4,204	3,573	2,278	2,210
2.5	Fte library staff	253.5	140.6	106	90	41
<b>3 Collection expenditures</b>						
	A	C	E	F	K	
3.1	Expenditures printed books (x 1000 )	1,084	1,281	506	445	237
3.2	Expenditures journals (x 1000 )	X	X	X	X	X
3.2.1	Total (x 1000 )	3,505	2,290	2,926	1,479	1,689
3.2.2	Expendit. current printed journals (x 1000 )	508	1,308	656	373	240
	<i>Including book serials?</i>	Yes	Yes	No	No	
	<i>Including multi-volume works?</i>	Yes	Yes	No	No	
	<i>Including loose leafs?</i> Yes		Yes	No	No	
3.2.3	Expenditures electronic journals (x 1000 )	2,997	982	2,270	1,106	1,449
3.3	Expenditures other e-resources (x 1000 )	11	556	48	312	250
3.4.1	Total expenditures printed resources (=3.1 + 3.2.2) (x 1000 )	1,592	2,589	1,162	818	477
3.4.2	Total expenditures electronic resources (=3.2.2 + 3.3) (x 1000 )	3,008	1,538	2,318	1,418	1,699
<b>5 Size of the collection</b>						
	A	C	E	F	K	
5.2	Number of monograph acquisitions past year	31,221	40,305	32,132	5,094	6,747
5.3	Number of current printed journals 6,307		3,290	3,489	1,144	900
	<i>Including book serials?</i>	No	Yes	No	No	No
	<i>Including multi-volume works?</i>	No	Yes	No	No	No
	<i>Including loose leafs?</i> No		Yes	No	No	No
5.4	Number of electronic journals	18,112	23,877	14,308	8,413	10,000
<b>6 Book processing</b>						
	A	C	E	F	K	
6.1	Fte book processing staff	22.8	39.5	17.0	8.0	6.0
6.2	Book processing time	X	X	X	X	X
6.2.1	50% of the book sample	8	20	8	?	20
6.2.2	80% of the book sample	19	30	20	?	35
6.2.3	90% of the book sample	32	50	28	?	50

7	Repositories / METIS	A	C	E	F	K
7.1	Total number of documents in repository 18,170		7,198	5,185	6,863	33,954
7.2	Number of documents, published last year, in repository	2,114	607	1,284	402	5,000
7.3	Number of publications last year from population (based on METIS) 9,986		6,705	2,666	5,663	5,914
8	Opening hours per week	A	C	E	F	K
8.1	Full service hours	45	43	44	44	45
8.2	Total hours	90	79	72	83	75
9	Loans	A	C	E	F	K
9	<b>Total number of loans last year</b>	365,112	214,097	165,369	83,083	61,646
	<i>Including renewals?</i> No		No	No	No	No
	<i>Including reservations?</i>	No	Yes	No	No	No
	<i>Including ILL?</i>	Yes	Yes	No	No	No
10	Interlibrary lending	A	C	E	F	K
10.1	Number of books borrowed by library 6,605		2,463	1,117	4,396	1,200
10.2	Number of articles borrowed by library 9,566		4,323	4,559	8,905	2,360
10.3	Number of books lent by library	12,383	8,828	6,535	4,931	1,811
10.4	Number of articles supplied by library 19,826		8,422	4,363	8,939	1,738
10.5	Fill rate book lending	63	60	71	61	81
10.6	Fill rate article supply	77	76	74	90	85
11	Searches in databases	A	C	E	F	K
11.1	Number of searches in OPAC	?	3,272,667	?	?	?
11.5	Number of searches in bibliographic databases	X	X	X	X	X
	1. Web of Science	243,182	449,739	300,006	48,938	50,887
	2. Journal Citation Reports	23,029	24,984	27,395	30,661	19,419
	3. Scopus	n.a	n.a	n.a	n.a.	n.a.
	4. EconLit	49,835	84,259	4,063	123,339	25,605
	5. PsychInfo	409,280	488,156	50,469	205,274	123,269
	6. MathSciNet	39,574	n.a.	23,404	2,434	24,642
12	Use of electronic journals	A	C	E	F	K
12.1	Total number of articles downloaded 2,837,195		992,386	1,105,973	?	?
12.2	Total number of e-journals with available use statistics	14,281	11,375	9,995	4,500	?
12.3	Number of articles per package	X	X	X	X	X
	1. ScienceDirect (Elsevier)	524,860	407,941	419,670	333,161	219,822
	2. Springer / Kluwer	111,158	80,235	75,180	41,685	34,472
	3. Wiley	68,284	67,636	53,834	38,642	45,398
	4. Blackwell	120,117	75,536	76,891	75,431	9,614

Table 2: Examples of reliability control

	YEAR	A	C	E	F	K
2.1.1	Library expenditures, incl housing (x 1000 )	2006	19,987	13,429	9,816	11,636
		2005				11,214
2.1.2	Library expenditures, excl housing (x 1000 )	2006	13,383	13,337	9,788	9,162
		2005	15,058	11,596	10,221	8,898
	<i>* Extra costs housing</i>		49%	1%	1%	27%
	YEAR	A	C	E	F	K
3.2.2	Expendit. current printed journals (x 1000 )	2006	508	1,308	656	373
		2005	663	846	973	439
	<i>* Change 2006 – 2005</i>	-23%		+55%	-3%	-15%
3.2.3	Expenditures electronic journals (x 1000 )	2006	2,997	982	2,270	1,106
		2005	2,606	1,431	1,727	1,085
	<i>* Change 2006 – 2005</i>	+15%		-32%	+31%	+2%
3.3	Expenditures other e-resources (x 1000 )	2006	11	556	48	312
		2005	0	602	82	272
	<i>* Change 2006 – 2005</i>			-8%	-59%	+15%
	<i>* Absolute values library A and C very low</i>					+16%
	YEAR	A	C	E	F	K
5.2	Number of monograph acquisitions	2006	31,221	40,305	32,132	5,094
		2005	30,041	30,398	19,552	7,720
	<i>* Change 2006 – 2005</i>	+	4%	+ 33%	+ 64%	- 34%
	<i>* Average costs per book (= 3.1 Expenditures / 5.2 Acquisitions)</i>	2006	35	32	16	87
		2005	26	32	28	51
						- 17%
	YEAR	A	C	E	F	K
5.4	Number of electronic journals	2006	18,112	23,877	14,308	8,413
		2005	16,370	9,876	15,553	7,500
	<i>* Change 2006 – 2005</i>	+	11%	+ 142%	- 8%	+ 12%
	<i>* Strong increase number of e-journals at library B coupled with strong decrease expenditures e-journals (see 3.2.3)</i>					+ 74%
	YEAR	A	C	E	F	K
6.1	Fte book processing	2006	22.8	39.5	17.0	8.0
		2005	27.1	37.0	30.0	8.0
	<i>* Change 2006 – 2005</i>		- 16%	+ 7%	- 43%	+ 0%
	<i>* Strong decrease number of fte at library C coupled with strong increase number of monograph acquisitions (see 5.2)</i>					+ 0%

Table 3. Most important performance indicators

<b>Primary resources</b>		<b>A</b>	<b>C</b>	<b>E</b>	<b>F</b>	<b>K</b>
A1	Expenditures library / expenditures university (%)	2.60	3.52	2.53	3.28	2.63
A3	Expenditures collection / expenditures library (%)	34.37	31.52	36.50	24.86	40.21
A4	Expenditures journals / expenditures monographs and journals (%)	76.38	64.13	85.26	76.87	87.69
A5	Expenditures e-resources / expenditures printed resources and e-resources (%)	65.39	37.27	66.61	63.42	78.08
<b>B. Provision of resources, facilities and services to end users</b>		<b>A</b>	<b>C</b>	<b>E</b>	<b>F</b>	<b>K</b>
B1	Collection expenditures per capita ( )	159	211	177	169	241
B5.1	Number of opening hours per week, full service	45	43	44	44	45
B5.2	Total number of opening hours	90	79	72	83	75
<b>C. Book processing</b>		<b>A</b>	<b>C</b>	<b>E</b>	<b>F</b>	<b>K</b>
C1	Number of books processed per fte book processing	1369	1020	1890	637	1125
C2.2	Book processing time (80% of the book sample)	19	30	20	?	35
<b>D. Use of resources</b>		<b>A</b>	<b>C</b>	<b>E</b>	<b>F</b>	<b>K</b>
D2	Number of loans per capita	12.66	10.75	8.18	6.18	6.72
D3	Number of books lent by library (ILL)	12383	8828	6535	4931	1811
D4	Number of articles supplied by library (ILL)	19826	8422	4363	8939	1738
D8	Number of searches in Web of Science per capita	8.43	22.59	14.84	3.64	5.55
D9	Number of articles viewed in Science Direct per capita	18.20	20.49	20.76	24.78	23.97

Table 4. Absolute values, mean relative values and median relative values for the performance indicator loans per capita

	9.1. Loans	1.4. Size of population	Loans per capita	Mean relative value	Median relative value
A	365,112	28,845	12.66	168	188
B	303,402	26,611	11.40	152	170
C	214,097	19,911	10.75	143	160
D	282,322	32,849	8.59	114	128
E	165,369	20,211	8.18	109	122
F	83,083	13,447	6.18	82	92
G	222,181	20,737	10.71	143	159
H	95,151	21,613	4.40	59	65
I	49,780	12,392	4.02	53	60
J	94,121	16,982	5.54	74	82
K	61,646	9,169	6.72	89	100
L	31,597	9,560	3.31	44	49
M	33,985	6,449	5.27	70	78

Loans per capita	
Minimum	3.31
Maximum	12.66
Mean	7.52
Median	6.72

Table 5. Best practices 2006: median relative values of 175 and higher

<b>Performance indicator</b>	<b>Library</b>	<b>Median relative value</b>
B1. Collection expenditures per capita ( )	J	183
	M	175
C1. Number of books processed per fte book processing	H	178
C2.2 Book processing time (80% of the book sample)	D	177
D2. Number of loans per capita	A	188
D3. Number of books lent by library (ILL)	B	220
	G	217
	A	175
D4. Number of articles supplied by library (ILL)	J	886
	G	246
	A	222
	M	189
	B	186
D8. Number of searches in Web of Science per capita	M	315
D9. Number of articles viewed in Science Direct per capita	M	308

Table 6. Median relative values from library D, 2003–2006

Library D	Median relative values				
	2003	2004	2005	2006	Change 2006 – 2005
A1. Expenditures library / expenditures university (%)	100	84	86	118	+ 37%
A3. Expenditures collection / expenditures library (%)	76	98	85	91	
A4. Expenditures journals / expenditures monographs and journals (%)	110	113	100	99	
A5. Expenditures e-resources / expenditures printed resources and e-resources (%)			92	98	
B1. Collection expenditures per capita ( )	77	86	78	100	+ 28%
B5.1 Number of opening hours per week, full service	89	91	91	89	
B5.2 Total number of opening hours per week	109	111	111	110	
C1. Number of books processed per fte book processing		94	65	75	
C2.2 Book processing time (80% of the book sample)			273	177	- 35%
D2. Number of loans per capita	128	118	110	128	
D3. Number of books lent by library (ILL)	49	110	100	100	
D4. Number of articles supplied by library (ILL)	184	163	131	99	- 24%
D8. Number of searches in Web of Science per capita			69	70	
D9. Number of articles viewed in Science Direct per capita	160	100	134	141	

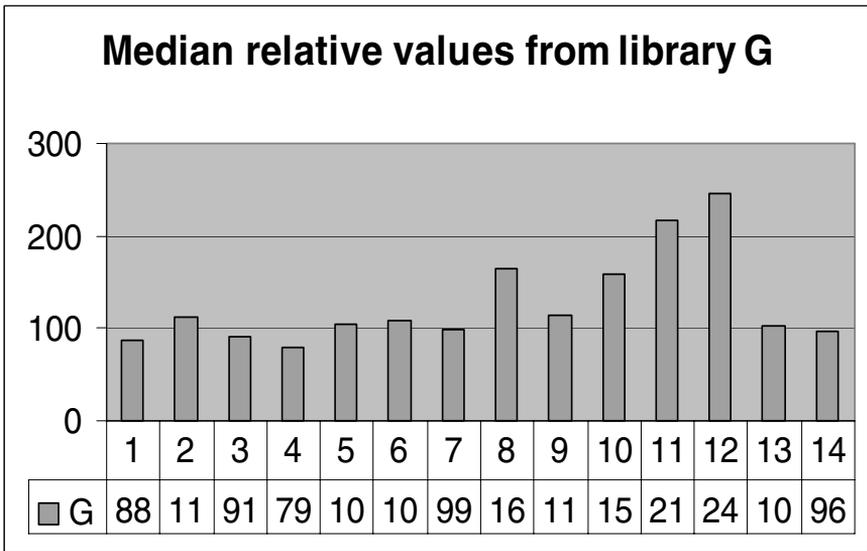


Figure 1. Median relative values from library G

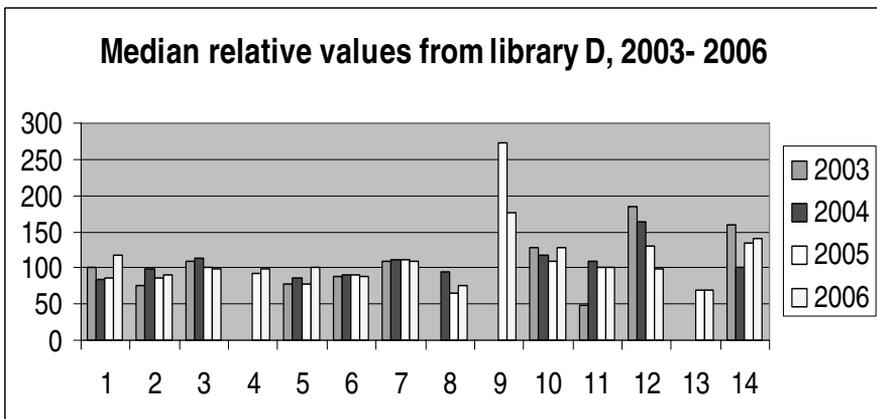


Figure 2. Median relative values from library D, 2003–2006

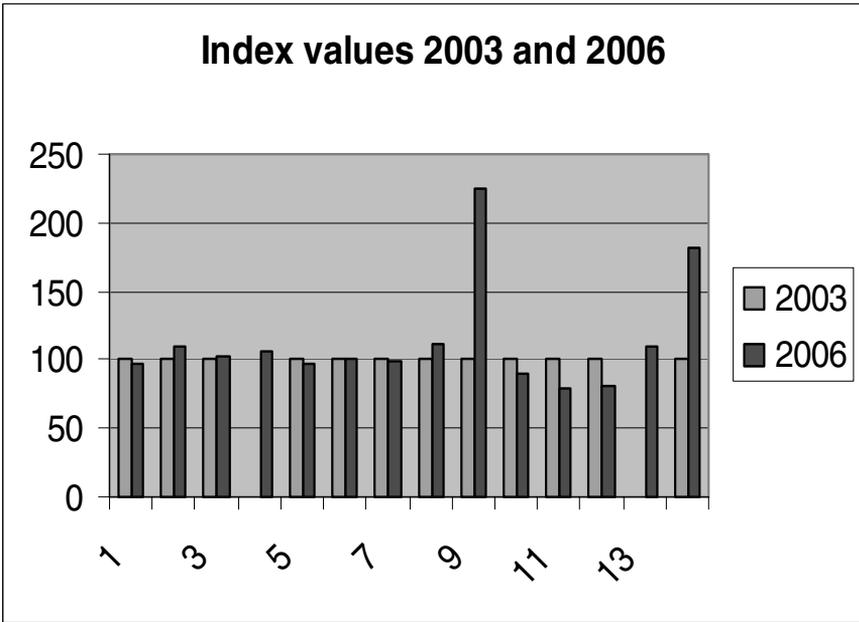


Figure 3. Index numbers based on median values 2003 and 2006

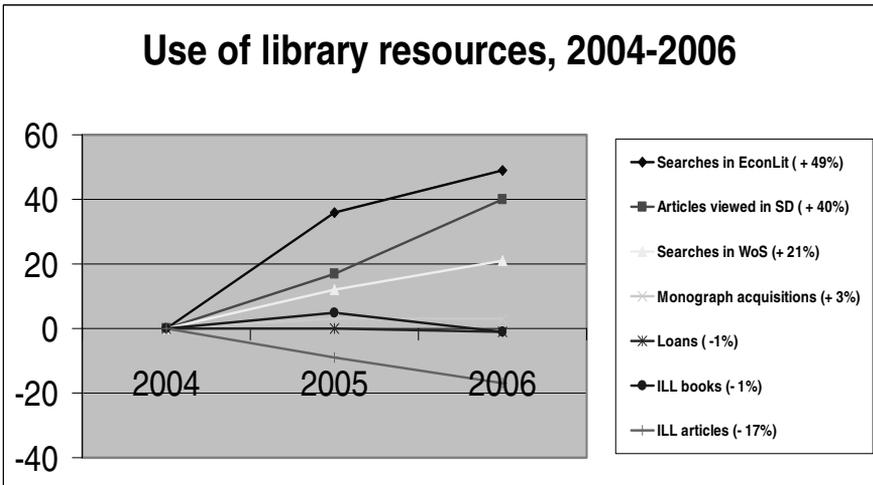


Figure 4. Changes in use of library resources, 2004–2006

# UK HIGHER EDUCATION LIBRARY STATISTICS

Claire Creaser, LISU, Loughborough University

## ABSTRACT

*Academic libraries in the UK have a long history of collecting management statistics about their operations. This paper describes the role of the Society of College, National and University Librarians (SCONUL), and its predecessor bodies, in developing this data collection into the comprehensive database which exists today. Universities, polytechnics and colleges formerly each had their own library organisations, but as the sector itself has become more coherent, so SCONUL has evolved and grown to represent libraries in all types of higher education institution in the UK. All universities, and all but a handful of higher education colleges, are members, and over 80% submit their statistics annually. SCONUL member institutions educate 99% of the UK's publicly funded HE students.*

*The paper covers the development of the SCONUL statistical return and the processes by which the relevance of the data collected, and the management statistics provided in SCONUL's publications, are monitored and updated. SCONUL currently produces three annual publications, the Annual Library Statistics, UK Higher Education Library Management Statistics, and SCONUL Library Statistics: Trends. Each of these is described, and examples given of the outputs available and the overall purpose of these. SCONUL also makes available, to its members, a comprehensive statistical database which was initially developed in 2002 and is currently maintained by LISU. The rationale and methodology behind the development of this database is outlined, and current proposals for further enhancement described. Members can interrogate the database directly from the SCONUL web site, and a selection of examples of the main analyses available will be presented.*

*SCONUL data are used for a wide variety of purposes, by individual libraries, SCONUL as an organisation, and by researchers. A selection of the uses to which the data are put will be outlined, including the development of performance indicators, library evaluation programmes, a variety of benchmarking analyses for individual library services, and advocacy, both for individual libraries within their institution and at the national level.*

## INTRODUCTION

SCONUL is the UK umbrella organisation for academic libraries in the UK and Ireland. It was founded in 1950, as the Standing Conference of National and University Librarians, but did not begin to collect statistics about members' libraries

until 1987. In April 1994, following a re-structuring of higher education provision, SCONUL merged with the Council of Polytechnic Librarians (COPOL); at that time it had 120 full members (universities and national libraries) and five associates (other higher education institutions)<sup>1</sup>. COPOL also had a history of collecting financial and management statistics from its members, and in 1995 LISU became involved with the compilation of the first combined volume of data.

In 2001, again following changes to the education system, SCONUL merged with the Higher Education Colleges Learning Resources Group (HCLRG). This group represented a very diverse set of colleges, and had already begun to collect statistics, using a subset of the SCONUL form. SCONUL was re-named the Society of College, National and University Libraries, to reflect its wider role, and began to collect and publish management statistics which encompass all UK universities, and all but a handful of HE colleges – approximately 85% of members submit their statistics each year. SCONUL member institutions now educate 99% of the UK's publicly funded HE students, and all UK HE institutions are invited to contribute key data, even if they are not members of SCONUL. Due to a difference in the timing of the academic year and using a different currency (Euro), members in the Republic of Ireland do not, currently, participate in the data collection exercise.

## DEVELOPMENT OF THE RETURN

SCONUL statistics have been developed by librarians for librarians, with the aim of 'providing sound information on which policy decisions can be based'.<sup>2</sup> As a result, they have evolved over time, both in terms of the activities which are included, and the definitions applied to the data. This development is overseen by the Working Group on Performance Improvement (WGPI); it has a Statistics sub-group which meets annually to consider the detail of the return, and what, if any, changes are appropriate. Wherever appropriate, the latest ISO definitions are used when introducing new data elements, although there is an element of pragmatism in terms of collecting data which are both useful and available.

In practical terms, the data collection process has evolved from one entirely based on a paper form, through electronic submission via Excel spreadsheets, to a flexible web-based form. The process is supported by the SCONUL office, which controls access to the return and the statistics, and chases late respondents each year. Hosting is provided by the University of Bristol, and LISU, based at Loughborough University, undertakes the analysis and preparation of the statistics:

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<sup>1</sup> Pentelow, Gillian, 1994, 'Standing Conference of National and University Libraries', *Serials*, 7(3) pp. 233-236

<sup>2</sup> SCONUL web site, accessed 23-7-08 <http://vamp.diglib.shrivenham.cranfield.ac.uk/statistics/sconul-annual-library-statistics>

**Box 1 Areas covered by the 2006-07 SCONUL return**

Organisational structure

Accommodation

Library space, seating &amp; workstations

Provision of stock

Print &amp; electronic, stock &amp; acquisitions, disposals

Clientele

Use

Visits, circulation, ILL, enquiries, e-use

Staff numbers

Expenditure

Staff, information provision, equipment, other

- Monitoring & checking returns;
- Compiling the data;
- Income
- Preparation of the main statistical reports;
- Maintaining the databases;
- Preparing the analysis of trends;
- Answering enquiries, both on the detailed form as well as about the figures themselves; and
- Preparing commissioned analyses.

The last major revision to the data collection was made more than ten years ago, when the detail collected on different stock formats, and much of the detailed breakdown required for financial data, was simplified. Since then, minor revisions have been made annually, most notably in the area of electronic resources, where the data collection has expanded in line with the increasing importance of this aspect of the academic library, and changed to keep up with changing technologies. Box 1 shows the areas covered by the current return; readers who wish to see more detail are referred to the demonstration form available on the SCONUL web site.<sup>3</sup>

A number of example pro-formas are provided to assist libraries in the collection of data relating to some areas of the return, in particular for the enquiry count and some elements of the financial data.

<sup>3</sup> <http://eels.ilrt.org/cgi-bin/gen.pl?manifestid=170>

## USING THE DATA

In the early years of data collection, the SCONUL statistics were viewed with scepticism by a great many people, including some of those who provided the data. Even when they were convinced that their own data were reliable, and accurate, some respondents did not believe the same of all the other contributors, with some justification. Over time, the statistics have become much improved, and the quality has increased each year. The reasons for this are many, and include technological advances which provide system statistics at the press of a button; familiarity with the software; increased emphasis on the application of quantitative evidence within institutions; and increased use of the data both within and beyond the academic library community. Training sessions are also available for library staff compiling and using the data. The key evidence for this quality improvement is the inherent consistency of the data – library statistics do not, on the whole, change dramatically from year to year, and this is apparent in the majority of areas covered by the SCONUL statistics set. There are exceptions, and areas where less confidence can be placed in the figures, but these are well known, and treated with appropriate caution.

LISU maintains a database derived from the annual returns which goes back in part to 1991–92, although the figures for the earliest years are less complete. The majority of areas have reliable data which goes back for ten years or more, and this is an invaluable resource, as it means that the statistics can be used not only to demonstrate the current position, but also how that position was arrived at. This is available for internal management use by SCONUL members, for benchmarking at a variety of levels, and for advocacy at a local and national level. It is also possible to derive statistics which can be compared internationally.

## STATISTICS PRODUCTS

Each year, LISU, working on behalf of SCONUL, produces five basic statistics products:

### **1. SCONUL annual statistics**

This is the main product of the statistical return, and is the one which has been available for the longest time. It reproduces the data as submitted by each institution (after correction if necessary), including all the notes which accompany the figures. Institutions are presented in a single sequence, and summary figures are calculated for the four main UK sectors (Research Libraries UK members; other pre-1992 universities; post 1992 universities; and other HE institutions) and for the membership as a whole. Because of the diverse nature of HE libraries, selected distribution points are presented in addition to the arithmetic mean; these also al-

low institutions to see at a glance where they fit in relation to others in their sector, without providing a formal ranking of libraries.

A substantial section of the report is concerned with an extensive set of ratios and derived statistics, which can be used to monitor performance and make comparisons with other institutions. Most performance indicators are calculated on the basis of full time equivalent (FTE) students, although some use an estimate of all FTE users, and others are proportions or other ratios. The derived statistics cover library provision and use, stock provision, expenditure and use, interlibrary activity, enquiries and staff workload, efficiency measures, expenditure and electronic resources.

A brief commentary is also included, highlighting key results and making some comparisons to the previous year. This report is available in print, and to contributors on the SCONUL web site.<sup>4</sup>

## **2. Higher Education Library Management Statistics**

Known as HELMS, this report has been produced since 2001 as a supplement to the *Annual Library Statistics*. It comprises a small set of key management statistics and contextual data, and is designed for senior institution managers. Library data from SCONUL returns are supplemented with institution-wide data from the Higher Education Statistics Agency (HESA). Box 2 lists the statistics included. The format is rather different from the annual statistics, with institutions listed by country, and totals provided for each country and the UK as a whole. Another important difference is the use of FTE user as the divisor for ratios, in this case defined as FTE students plus academic staff, in line with other HESA reports. A short commentary and graphical presentation of the ratios is included, and relevant notes are reproduced. The report is currently only available in print format.<sup>5</sup>

## **3. SCONUL database**

Each year, when the two annual reports described above have been completed, LISU staff undertake an extensive programme of careful checking and editing of the data in relation to previous years, to incorporate it into the SCONUL database. The object of this is to produce figures which are as complete as possible, and which conform as closely as possible to the original definitions, so that comparisons can be made between years and between institutions, with confidence. Each institution is considered separately, using all available information to correct for data which do not conform to the standard definitions, or to make estimates for key figures which are not available. Previous figures are checked for consistency, and any apparent discrepancies checked with the institution concerned; the reasonableness of previous estimates is also examined, and adjustments made if necessary.

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<sup>4</sup> SCONUL, 2008, *Annual Library Statistics 2006-07*, London, SCONUL

<sup>5</sup> SCONUL, 2008, *UK Higher Education Library Management Statistics 2006-07*, London, SCONUL (in press)

**Box 2 Management statistics included in HELMS**

SCONUL library management statistics:

- Total library expenditure per FTE user
- Expenditure on information provision per FTE user
- Expenditure on library staffing per FTE user
- Study place hours per week per FTE user
- Loans per FTE user
- ILL as percentage of all loans

SCONUL library contextual data:

- Number of libraries
- Space occupied
- Size of collection
- Number of study places available
- Number of workstations
- Total library expenditure

HESA institutional contextual data:

- Number of students
- % of postgraduate students
- % of part time students
- Number of academic and research staff
- Expenditure on total academic services
- Proportion of funding council funding for research

Note that, while all fields are edited with respect to conformity with the definitions, not all fields are edited for completeness; however all major expenditure heads, together with staff numbers, extent of collections, use of print collections, and space provision are covered routinely. Retrospective editing is carried out when specific requests are made, provided that there is a sufficient body of data on which to base reliable estimates.

The SCONUL database covers 1991–92 to 2006–07. It includes figures in respect of all SCONUL members starting in the year in which they joined SCONUL if this was after 1991–92, or the year in which they first completed a data return, if earlier. No estimates are included for institutions which are not members of SCONUL and have never made a SCONUL return; however this is now less than 10 institutions, representing only 1% of the UK's publically funded higher education students. The aim is to have as complete and accurate a record as possible of HE library statistics in the UK. The database is not made publically available, but is used to prepare a generic trends report for members, and an edited version is available on the SCONUL web site for members to carry out their own analyses. Institutions may also commission analyses from LISU.

#### **4. Trend analysis**

The SCONUL trend analysis is prepared by LISU from the edited database of statistics. A ten year trend analysis gives summary figures on 15 key performance measures for each of the four sectors noted above, and for SCONUL members as a whole. There is an extensive commentary, and the data tables are illustrated graphically. Five broad areas are covered – contextual data, service provision, library use, staff, and financial data. The purpose of this analysis is to give an overview of performance in the sector, and to provide some broad figures against which individual members can benchmark their own results. The report is currently available to members only. Figure 1 shows an example page from the 2007 report.

#### **5. Statistics on the web**

The SCONUL Statistics on the Web database is derived from the full database held by LISU. It differs in the key respect that estimates are suppressed where an institution has not provided data for five years consecutively. While such estimates are valuable in the context of contributing to sector-wide totals to give consistency of trends, as records of individual institutional performance they may be significantly different from the true position, and so of little value for such detailed benchmarking applications. As well as data for individual institutions, the Statistics on the Web database is pre-loaded with summary figures for the four sectors described above, and the total for all SCONUL members. These totals include estimates for the omitted institutions.

A variety of analyses can be carried out, and some examples are illustrated below. Data for selected indicators and selected institutions can be listed (Figure 2). Ranked lists of all institutions on a given measure or ratio can be produced (Figure 3). Time series can be constructed comparing institutions across a single indicator (Figure 4), or comparing a selection of indicators for a single institution. Data can also be downloaded for export into a spreadsheet or other analysis software.

The database has been available to members for three years, and suggestions are frequently made for enhancements to the functionality. Current proposals being

considered include changing the format of the graphs to make these more user-friendly, particularly for reporting purposes; and adding a new report which will allow the setting up of individualised groups of institutions for which totals and averages could be analysed and compared.

## **OTHER USES**

The statistical products described above have a wide range of uses, for individual institutions, for the academic library sector as a whole, and for all those with an interest in the sector, including service suppliers, consultants, and researchers. Some examples of these are described below.

### **1. Service evaluation**

SCONUL statistics are widely used by individual libraries for routine service evaluation. This can take the form of monitoring overall trends, for example to identify areas of service growth and decline, as well as managing stock, staff and services. Many institutions find the statistics essential for their internal planning and decision-making on a day-to-day basis. Note that for institutions with multiple service points, collection of standard statistics such as those required by SCONUL can also provide evidence for evaluation and benchmarking of individual service points as well as for the library service as a whole.

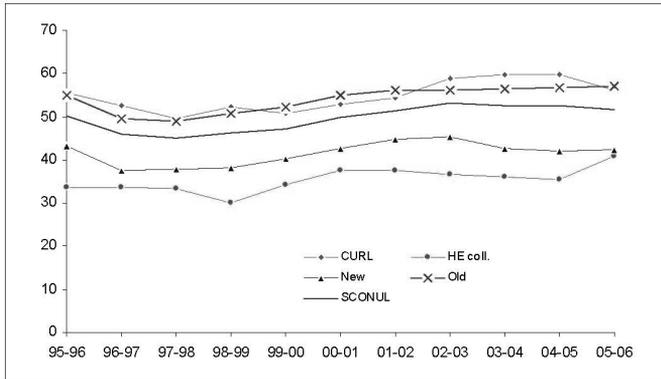
### **2. Benchmarking**

This is one of the key uses of the SCONUL dataset, both by individual institutions using the web database, and commissioned from LISU. Ten years and more of reliable data allow trends to be examined, both in individual institutions and against averages. This gives context to the snapshot figures for the latest year, and indicates whether current performance is typical of recent years or not. The individual figures can be used to inform the objective selection of comparator institutions, using statistical methods such as nearest neighbour analysis, and to provide background and contextual data for more detailed process benchmarking exercises.

Selection of comparator institutions is key to successful benchmarking. In some instances these may be pre-determined, for example a key set of competitors might be used for comparison purposes across the institution. Alternatively, comparators can be selected with a particular aim in mind – for example as a set of institutions to which the library aspires. However, any set of comparators must be justifiable if the results of the benchmarking exercise are to be taken seriously, and followed by actions to change the service. The data set can be used to identify instances of potential ‘best practice’, with the historical data showing whether this is a consistent pattern or a one-off occurrence. Analyses may also demonstrate that particular institutions are not necessarily good comparators to use, for any number of reasons.

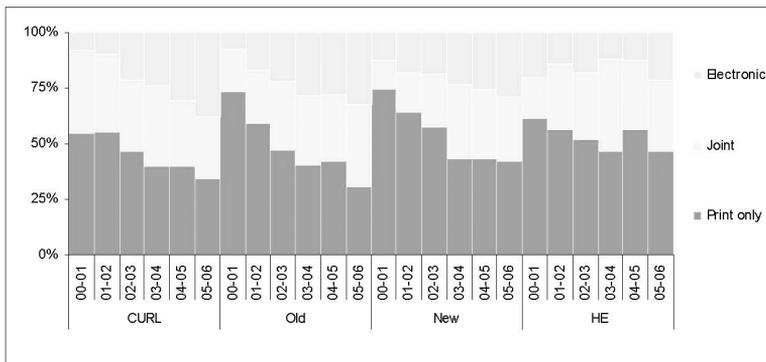
**Fig 29 Percentage of information provision expenditure on serials**

	95-6	96-7	97-8	98-9	99-0	00-1	01-2	02-3	03-4	04-5	05-6
CURL	56	53	49	52	51	53	54	59	60	60	56
Other Old	55	50	49	51	52	55	56	56	57	57	57
New	43	38	38	38	40	43	45	45	43	42	43
HE colleges	34	34	33	30	34	38	37	37	36	35	41
All members	50	46	45	46	47	50	51	53	53	52	52



In contrast to the picture for books, the proportion of information provision expenditure on serials has remained unchanged, or increased in all sectors over the last five and ten years. The changing methods of delivery, with increasing emphasis on electronic serials, and the various charging models applied, render this area a particularly complex one. SCONUL collects data on serials expenditure by format, although the detail available is far from complete. Fig 30 illustrates the breakdown of expenditure since 2000-01. It is interesting to compare this with Fig 12, showing the breakdown of titles.

**Fig 30 Breakdown of serial expenditure by format**



**Database of Academic Library Statistics  
( ccreaser )** A A A 

[Return to Questionnaire Guidance](#)

**Institutional Data for 2005-06**

Variable	Cambridge	Cardiff	Leeds	University of the Arts	Manchester	Oxford
No. of Libraries	114	25	17	17	20	35
Library floor area	64505	20755	27150	6486	42150	63594
Total study places	7190	3221	3983	1181	3998	3892

Figure 2 SCONUL statistics on the web – sample institutional data

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**Ranked Data for 2005-06**

Rank	Institution	No. of Libraries
1	All SCONUL members	940
2	CURL members	482
3	Post-92 Universities	231
4	Other pre-92 Universities	137
5	Cambridge	114
6	Oxford - Coll. libraries	113
7	All HE Colleges	81
8	Oxford	35
9	Cardiff	25
10	Manchester	20
11	Leeds	17
11	University of the Arts	17
12	UCL	16
13	Bristol	14
13	Edinburgh	14
14	Imperial	13
14	Liverpool	13
15	Birmingham	12
15	Nottingham	12

Figure 3 SCONUL statistics on the web – Ranked lists

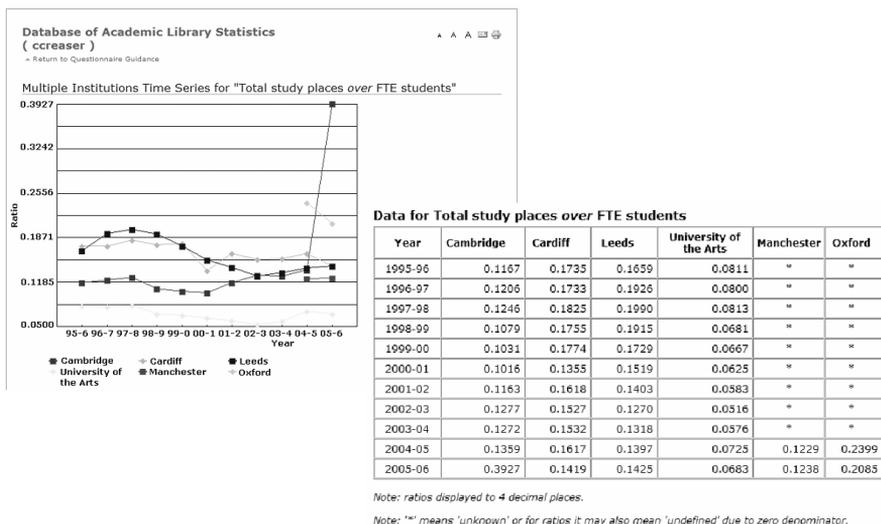


Figure 4 SCONUL statistics on the web – Time series

Note: Early data for Manchester and Oxford are shown as 'unknown' due to institutional and library mergers rendering these figures incomparable to the most recent data.

When benchmarking, it is important to compare like with like, and the editing process carried out on the SCONUL statistics database facilitates this to a large extent. While every academic library is different from every other academic library, having a set of data on consistent, well understood, definitions is an essential precursor to useful analysis. LISU also recommends carrying out statistical benchmarking procedures against averages of groups of institutions – usually around six for a specific comparison group – as this evens out any unusual figures in a single institution's data which might obscure the broader picture. Statistical benchmarking in this way is facilitated by the public availability of a comprehensive data set covering all aspects of library operations, albeit at a macro level.

### 3. Advocacy

Advocacy is a key role for the SCONUL statistics. Within institutions, this can be framed (according to the audience and purpose) to show how well a library service is performing, in comparison to previous history or to other institutions. This gives good publicity to the service, and is invaluable for marketing purposes. Properly chosen statistics can be used to demonstrate value for money, and efficiency of operation to the service stakeholders – staff, institutional management and users. On the other hand, statistics are also required to support business cases for additional funding or other resources, and here it is key to make valid comparisons, or the whole case will fail.

Nationally, the broad statistics are used by the SCONUL office to inform government about the sector, both generally and in response to specific requests for information and evidence. They also underpin sector-wide negotiations, for example concerning licensing agreements.

A third group of users of the wider statistics is perhaps the most diverse, comprising those who provide services to academic libraries, such as publishers, consultants, library suppliers, equipment manufacturers etc. These users have need of data to inform their strategic planning to enable them to best meet the needs of academic libraries, and it is in everyone's interest to see that they have accurate information about the sector as a whole.

## CONCLUSION

SCONUL has been collecting and publishing statistics from university libraries since 1987, with the aim of providing sound information on which policy decisions can be based. Carrying out a sector-wide data collection exercise on a voluntary basis requires commitment from the umbrella organisation as well as the individual libraries supplying data. It has taken many years for the SCONUL statistics to have reached the position they are in today, with the broad coverage and reliable methods which mean they can be – and are – used with confidence both within the sector and beyond it. SCONUL's web site neatly sums up the current position:

‘SCONUL's statistics are hard work to produce and they are worked hard once they are published.’

The statistics are one of SCONUL's key services to its members, and the Working Group on Performance Improvement, which oversees them, will continue to develop the collection, analysis and dissemination of the data for the benefit of the sector.

# **INTEGRATED APPROACH TO THE EVALUATION OF DIGITAL LIBRARIES: AN EMERGING STRATEGY FOR MANAGING RESOURCES, CAPABILITIES AND RESULTS**

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## **ABSTRACT**

*The growing importance of the networked environment and the consequent change in users' information behaviour has challenged the library academia and professionals' skills to find new and more adequate strategies and methods to assess the performance of traditional, hybrid or digital information services. This paper aims to detail the strategy and methodology used by a research team to evaluate the performance of the Portuguese Digital Library consortium.*

*Using a holistic user/stakeholder-centred approach, the researchers designed a Digital Library Integrated Evaluation Model. The five key-component of this model are presented: (a) Diagnosis; (b) Strategical groups and performance information needs; (c) Perspectives on performance evaluation; (d) Evaluation criteria and methods; (e) Evaluation points of view.*

*The evaluation methods, techniques and tools developed under two of the Model components – (c) Perspectives on performance evaluation and (d) Evaluation criteria and methods – are particularly discussed:*

- *the Digital Library Balanced Scorecard;*
- *the Matrix of Perspectives and Strategical Measurement Areas and the related performance measures and indicators;*
- *the Digital Library Service Quality Model and the multiple-item scale used in the assessment process.*

*The case study is also used to explore potential interactions between evaluation cultures/environments and learning professional skills, with emphasis on benchmarking and other interesting perspectives for research.*

## **1. EVALUATING THE NETWORKED ENVIRONMENT**

For more than four decades, performance evaluation of library and information services has been captivating the attention of professionals and researchers of the Information Science area. The models used in the evaluation of these services have been categorized by Herson and Altman (1996) in the following way:

- *Extension* (amount): models that implement measures to find out ‘how much’ inputs (financial resources, staff, documents, etc.) or outputs (activities, services’ use, etc).
- *Efficiency*: models centred in the establishment of ratios between inputs and outputs, most frequently *per capita* ratios.
- *Cost*: models focused on the average cost per input/output; when combined with extension and efficiency measures, they generate cost-effectiveness indicators;
- *Quality*: models developed to evaluate results (outputs) in terms of quality (reliability, relevance, etc. of a given service and user satisfaction with that service);
- *Effectiveness*: models that evaluate how an information service is attaining its goals and its alignment with the parent organization, as well as the organisation’s capacity to fulfil users’ needs.

As R. Cullen (2003) points out, cost-effectiveness analysis, RoI (Return on Investment) or impact and value assessment are other important approaches that have been used in the evaluation of information services.

The advent of a new networked environment in the beginning of the 90s of the 20<sup>th</sup> century brought increased complexity to this library and information services’ diverse evaluation context: traditional, hybrid and digital libraries coexist in the same geographical space and, sometimes, within the same organisation.

Among many existing definitions of the Digital Library (DL), we can pick one provided by Leiner (1998):

‘The Digital Library is:

- The collection of services
- And the collection of information objects
- That support users in dealing with information objects
- And the organization and presentation of those objects
- Available directly or indirectly
- Via electronic/digital means.’

According to T. Saracevic (2004), the main problem in evaluating DL derives from the difficulty in establishing evaluation borderlines. Based on a literature review on DL evaluation, this author identified seven possible approaches to this subject (Table 1).

Despite these multiple approaches and the existence of several possible levels of analysis,<sup>1</sup> in 2000, Saracevic pointed that ‘As yet, digital libraries are not evaluated on more than one level. This isolation of levels of evaluation could be considered a further and greater challenge for all digital libraries evaluations. In addition, as a rule, many systems are used in ways that their designers never intended’

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<sup>1</sup> Saracevic (2000) identifies seven levels of analysis integrated in three perspectives or approaches: the user, the interface and the system.

Table 1: Context of digital libraries evaluation (Saracevic, 2004, p. 5)

<b>Context of evaluation</b>	<b>Description</b>	<b>Observations</b>
<i>Systems-centered approach</i>	Implies the study of efficiency/effectiveness	Used frequently.
<i>Human-centered approach</i>	Implies the study of behaviour about informational needs ('information seeking, browsing, searching).	Very much used.
<i>Usability centered approach</i>	Implies evaluation by users	This approach is a bridge between systems approaches and human centered approaches.
<i>Ethnographic approach</i>	Implies the realization of studies about life styles in digital libraries and the study of impacts	Applied with success.
<i>Anthropological approach</i>	Implies the study of different stakeholders and their cultures related to digital libraries	Applied in one study with interesting results.
<i>Sociological approach</i>	Implies evaluation of situational actions in user communities	Applied in only one study.
<i>Economic approach</i>	Implies cost studies, cost-benefit, value and economic impact. .	Applied in the beginning of digital libraries (PEAK Project)

(p. 364). In 2004, he added: 'Digital libraries are complex social, institutional and technical systems. No evaluation can possible address all these aspects together' (p. 5).

This tension between the need for complete knowledge of an information system and the impossibility of reaching that absolute knowledge suggests the adoption of a holistic cumulative approach to evaluation where '... individual components can be combined to produce something beyond the sum of those components ...' (Nicholson, 2004). 'In the context of measurement and evaluation', as Nicholson points out, 'it means that a more thorough knowledge and understanding of a system can be gained from combining different measures than can be de-

rived than taking those measures separately' (2004). This sort of approach to evaluation was considered adequate for evaluating the Portuguese Digital Library consortium<sup>1</sup> From 2006 to 2007, the research team in charge of this DL evaluation initiative developed and implemented an Integrated Evaluation Programme.

## **2. A HOLISTIC USER/STAKEHOLDER-CENTRED APPROACH: THE *DIGITAL LIBRARY INTEGRATED EVALUATION MODEL***

Using a holistic user/stakeholder-centred approach, the researchers designed a *Digital Library Integrated Evaluation Model* (Figure 1).

This model is formed by five key-components:

- a) Diagnosis;
- b) Strategic groups and performance information needs
- c) Perspectives on performance evaluation
- d) Evaluation criteria and methods
- e) Evaluation points of view.

### **a. Diagnosis**

As mentioned by Bertot (2004), 'Evaluative approaches are developed to answer the questions of what libraries need or want to know regarding their resources and services', so he speaks about 'needs driven evaluation strategies' [p. 5] In this sense, pre-orientation towards stakeholders' performance information needs is an important factor: '... stakeholders typically have diverse and often competing interests' (Patton, 2002, p. 42). It is, therefore, essential to clarify and study the primary and secondary stakeholders (Reeves, Apedoe and Woo, 2003). On the other side, the 'Resource dependence theory' talks about organizational open systems in which environment transactions are very important because of their interdependence networks (Baron, 2003).

In the case of the Portuguese DL, the researchers identified two types of stakeholders:

- *Primary stakeholders*, directly interested or affected by the evaluation: DL consortium top managers, DL operational teams, libraries teams and end-users.
- *Secondary stakeholders*, involving all persons/institutions interested on the evaluation and its results: suppliers, associations, visitors (national and international), scientific research community, digital libraries professionals, Information and Documentation Sector, Information Management market and citizens in general.

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<sup>1</sup> Created in 2004, this DL Consortium has clients in all sectors of society. More information is available at: [www.b-on.pt](http://www.b-on.pt)

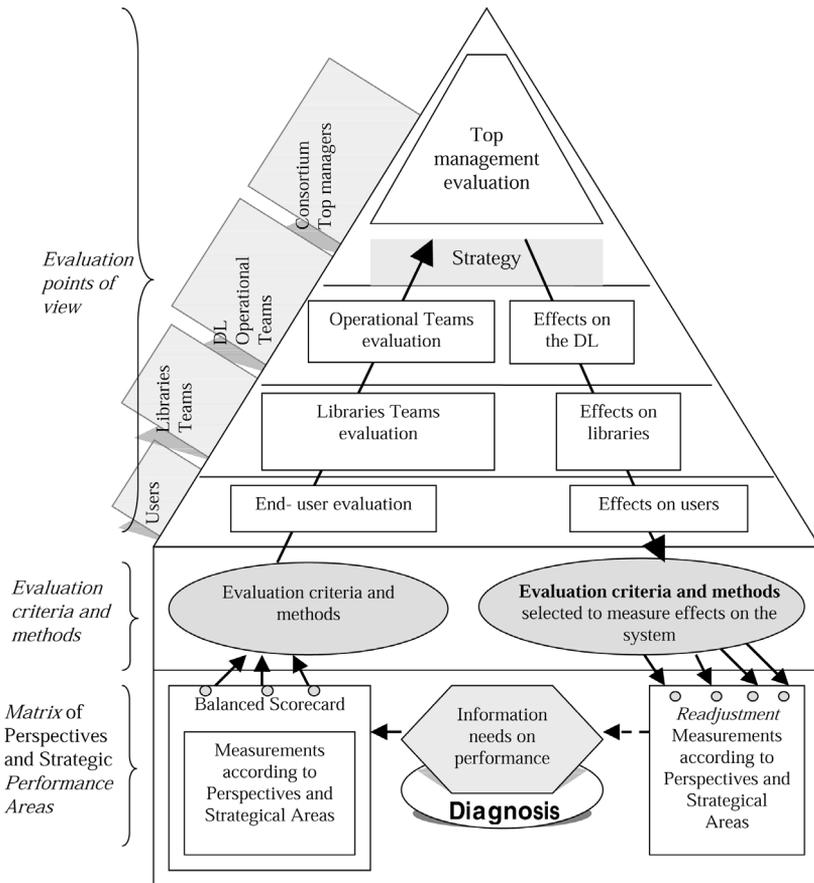


Figure 1 – Digital Library Integrated Evaluation Model

(adapted from Nicholson, S. (2004) – A conceptual framework for the holistic measurement and cumulative evaluation of library services)

Based on the performance information needs of these two groups of stakeholders and also on an extensive literature review, a diagnosis of the DL environment was carried out.

**b. Strategic groups and performance information needs**

After concluding the diagnosis, the next step was the identification of the DL’s strategic groups<sup>2</sup> and segments. The research team concluded that they equal the primary stakeholders that previously had been pinpointed.

<sup>2</sup> Concept introduced by Hunt (1972) to emphasize the strategic key-dimensions related to organizational performance and group performance.

The analysis of the DL strategical groups' performance information needs led to the identification of five *Strategical Perspectives*.

### c. Perspectives on performance evaluation

The inadequacy of traditional evaluation methods for the requirements of the emergent Knowledge Society led to the development of innovative evaluation methodologies like Kaplan and Norton's Balanced Scorecard – BSC (1992, 1996). It was mainly the strategical dimension of this methodology that pushed the research team to adapt and integrate it into the *DL Evaluation Model*. The DL BSC is composed of five strategical *Perspectives* (see Figure 2).

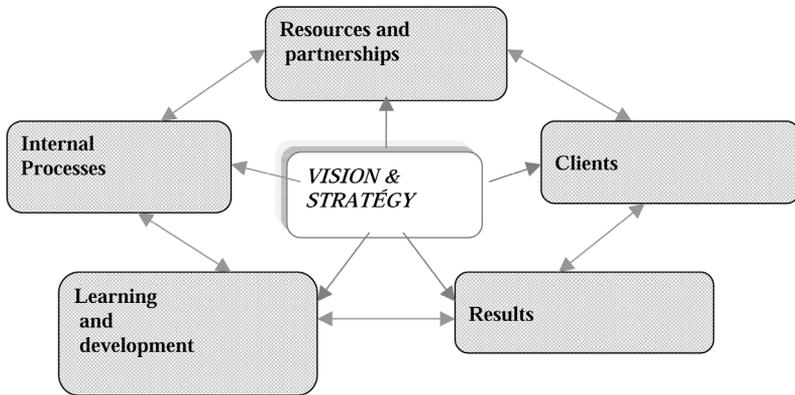


Figure 2 – The DL BSC perspectives (adapted from Kaplan e Norton, 1996)

- *Resources and partnerships* Perspective – it is concerned with the way internal resources (financial, information, technology, materials) and partnerships (supplier-buyer, cooperation, consortium) are managed to fulfill the DL strategy.
- *Clients* Perspective – this perspective covers all performance results related to the satisfaction of needs and expectations of clients and other DL stakeholders.
- *Results* Perspective – it is focused on the DL key-performance results, as well on its effects on users and other stakeholders.
- *Learning and development* Perspective – it covers leadership and staff management areas dealing with performance aspects like satisfaction, motivation, involvement and competencies development.
- *Internal Processes* Perspective – it is focused on the way processes are conceived, managed and improved in order to support organizational strategy, satisfy clients and generate value to all stakeholders.

Once the Perspectives were settled, the research team proceeded to the identification of the DL's *Strategical Performance measurement areas*. In the *Matrix of Perspectives and Strategical Measurement Areas* the DL measurement areas are presented and related to the Perspectives (Figure 3).

	Perspectives				
	Resources and partnerships	Clients	Results	Learning and development	Internal processes
Areas	DL collection Libraries electronic collection Libraries electronic services DL services Technological infrastructure Partnerships	Clients profiles Development Loyalty Satisfaction Service quality (desired service /adequate service/ expectations/ perceptions) Impact Communication and dissemination Perceived value	Use Usability Reference service and libraries' users support service	Staff profile Staff motivation DL competences development	Suppliers profile Digital contents life cycle DL clients support service

Figure 3 – Digital Library’s Matrix of Perspectives and Strategical Measurement Areas

Table 2 gives an example of some the performance indicators used in the evaluation of the DL collection.

Table 2 – Some performance indicators used in the DL evaluation

Perspective: Resources and partnerships		
Areas	ID	Indicators
DL collection (contents)	iR-c1	DL collection growing rate
	iR-c2	Percentage of databases in DL collection
	iR-c3	Percentage of serials in DL collection
	iR-c6	Cost per serial
	iR-c7	Cost per content unit downloaded
	iR-c8	Cost per FTE
	iR-c15	Percentage of serials with Impact Factor

#### d. Evaluation criteria and methods

There are various evaluation criteria for performance evaluation in information services. F. W. Lancaster defines three essential criteria: Effectiveness, Cost-efficacy and Cost-benefit (Lancaster, 1971/1978 cit. by Nicholson, 2000). Hernon and Altman (1996), define five criteria: Extension (quantity), Efficiency, Cost, Quality and Effectiveness.

In this case study, the information needs on performance determined the identification of six criteria in the Integrated Model:

- *Effectiveness* – Strategic management implies the focus on objectives in each BSC perspectives of evaluation defined, aligned with the organizational vision.
- *Extension* – gives information about resources (inputs) or results (outputs), being the basis for the development of ratios, like for example cost-benefit indicators.
- *Efficiency* – the relation between products and services and resources used in this process. This criterion measures the productivity in key-areas of performance.
- *Cost* – measures global costs of functioning. Combined with the criteria of efficacy generate cost-efficacy indicators.
- *Quality* – the concept of perceived quality based on gaps on perceptions and expectations of users (Berry e Parasuraman, 1991). In this perspective, service quality (SQ) always exists when users perceptions are greater than expectations
- *Impact* –the impact or outcome on skills, attitudes and behaviour of clients.

The application of the quality criterion to the evaluation of the Portuguese DL was based on the development of a tailor-made *Service Quality Model*.

#### e. The Digital Library *Service Quality Model*

It can be generically considered that underlying to the use of a product or service is the satisfaction of one given necessity of the user/client. Consequently, to reach superior levels of quality it is necessary to perceive which are the users' expectations and requirements, how they perceive the delivered service, what the relevant dimensions of this service are and how users will evaluate these dimensions.

The use of a service involves a multiplicity of tangible and intangible aspects that makes the adoption of instruments that allow its measurement and evaluation particularly critical.

As Parasuraman, Zeithaml and Malhotra (2005) pointed out, despite the great profusion of studies on service quality, over all the last three decades, only one limited academic article dealt with e-service quality or web services quality evaluation. Because of their specificity, these services evaluation required the adoption of convenient instruments and scales adequate to their characteristics and users' relevant evaluating aspects.

Based on empirical studies, several academic researchers have been using different e-service quality scales with relevant dimensions for this type of services. For example, Zeithaml, Parasuraman e Malhota (2000, 2002) developed *e-SERVQUAL*, which included seven dimensions: efficiency, reliability, fulfilment, privacy, responsiveness, compensation and contact. The scale developed by Loiacono, Watson and Goodhue (2002) – *WEBQUAL* – has twelve dimensions: informational fit-to-task, interaction, trust, response time, design, intuitiveness, visual appeal, innovativeness, flow, integrated communication, business processes, substitutability (better than alternative services).

Based on the conceptual model suggested by Zeithaml, Parasuraman and Malhota (2002), the research tem developed a *Digital Library Service Quality Model* to evaluate the quality of service delivered by the Portuguese DL (Figure 4).

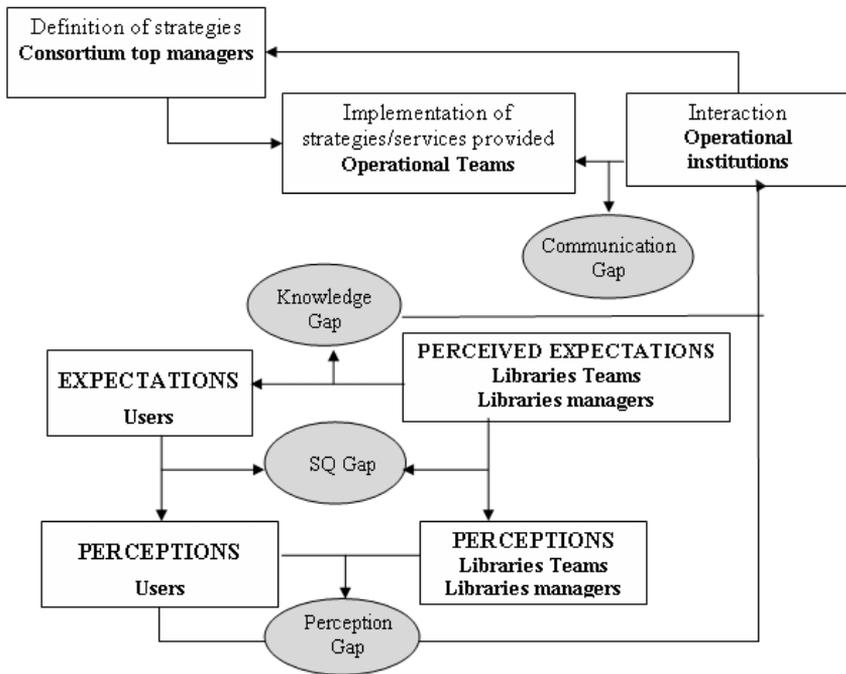


Figure 4 – Digital Library Service Quality Model (adapted from Zeithaml, Parasuraman & Malhota, 2002)

This model is centred on users and assumes that service quality provided through digital library services involves different levels and a set of critical points that determines SQ. These critical points or Gaps are related to organizational deficiencies. If these gaps are monitored, it is possible to implement adequate measures to correct these critical points and improve service quality.

The model identifies some linkage between the identified strategical groups in this digital library evaluation process. These linkages have some critical points that can be identified as gaps:

- Digital libraries services intend to answer to the expectations of its users. The difference between the perceptions of the delivered service and the expectations generates *service quality (fulfilment gap)*.
- *Knowledge gap* – it refers to libraries teams and libraries managers' deficient knowledge on users' needs and expectations.
- *Perception gap* is the difference between users' perceptions and libraries teams and libraries managers' perceptions on users.
- *Communication gap* reflects misunderstandings between different operational teams and institutions.

This model also assumes that a digital library is a multidimensional construct that includes three dimensions: (1) Efficiency, (2) Competitive advantage and (3) Adequacy of information.

#### **f. Evaluation points of view**

The (re)introduction of the stakeholders' points of view on the DL evaluation corresponds to the final step in the construction of the *Integrated Evaluation Model* and guarantees the multidimensional, integrated and holistic structure of this model. As Nicholson points out, quoting Brophy and Couling (1996), 'The same evaluation criteria will be judged in different ways by different participants in the process. In order to gain a holistic understanding of the evaluation, the viewpoints from different groups must be taken into perspective. (...) Therefore, it is important to be aware of the viewpoint of the group doing the evaluation and ensure different groups who might be affected through decisions made from the evaluation can participate in the process' (2004).

### **3. POTENTIAL INTERACTIONS BETWEEN EVALUATION CULTURES/ENVIRONMENTS AND LEARNING PROFESSIONAL SKILLS**

A number of Portuguese researchers and practitioners have argued that LIS competencies management, more than ever before, experiences new notions of professional culture in changing evaluation environments and professional work (Ochôa and Pinto, 2007). Professional communities are supported by *change agendas and opportunities*, one of them being the potential interactions between evaluation culture and professional skills.

The components of professional competence in an evaluation environment link professional learning skills to librarians' clients highlighting the importance of practice based on knowledge management and quality dimensions of service. De-

spite disciplinary variations, it seems evident that evaluation cultures emphasize the importance of expert knowledge in order to become a professional actor in information society dilemmas. This focus may also be seen as a factor that challenges the position of quality services within digital libraries strategic priorities and thereby creates a discursive practice with explicit reference to professional skills relevance.

This case provides a basis for discussions about the competence dimension in evaluation cultures, articulating the aim of skills management as part of a professional responsibility.

Two major concepts influence this case: Management Skills Charter and Skills Map, a combination of theories of knowledge management concepts and Quality Management, assumed by all the staff and publicised by various media. It implies that digital libraries are perceived as objective representatives for both professional skills evidences and quality services levels. In this marketing process what is associated with collective competences activities is often perceived as the highest valued.

This approach allows a better evaluation of the library strategical process, identifying the principal attributes of a digital library, namely:

- The use of common procedures to evaluate;
- *The engagement of all the participants in results, discussing strong and weak points and designing improvement actions;*
- *The use of an integrated system of evaluation where levels of key-skills are particular important for the effectiveness.* A coordinated combination of service, just-in-time answers, a new personalised way of looking at users needs and expectations in each library may help to create informational skills with strategic value in the information market;
- *Skills models must be aligned with strategic maps accordingly with changes within information sector.*

The key-factor to success in this experience is the individual professional role identification with a new professionalism model.

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## **Conclusions**

## WHERE SHALL WE GO FROM HERE?

Roswitha Poll  
Chair of ISO TC 46 SC 8

After two conference days mainly dedicated to the project of new global library statistics: where shall we go now?

Certainly we should not step back from the vision that standardised, uniform library data could be collected in all countries and would yield an overall picture of what libraries offer and achieve. Even if as yet it is only a vision, the first steps have been taken:

- We have reached consensus between the cooperating groups of IFLA, ISO and UNESCO on a list of relevant library statistics.
- The list is based on the definitions of the international standard ISO 2789 that is already in wide-spread use.
- The test of the “global statistics” in Latin America and the Caribbean demonstrated that many data in the questionnaire **could not yet be collected** by the countries, but at the same time proved the feasibility of the project by the respectable percentage of data that **could be collected**.
- There is evidently a broad interest in such new statistics, and several initiatives, e.g. in Southern Asia and in Africa, might start from this conference.

What can we do to get this project farther on the way?

It will not be sufficient to gain the interest of librarians; we must try to interest governments and funding institutions. It does not seem possible 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.

The UNESCO Institute for Statistics is certainly the right institution to collect global cultural statistics like library data. But the starting phase of such projects is always time-consuming. The project partners should try to find grants for initiating the new library statistics.

There are regions in the world where it will not be difficult to fill out the questionnaire on a national basis; there are on the other side “white” regions as regards library statistics. It may be useful to engage library associations in “statistically developed” regions in partnership and help.

It will be not only useful, but necessary to develop teaching modules of library statistics for librarians that are responsible for collecting the data.

The discussions during this conference showed that the definitions and procedures described in the global statistics questionnaire might be somewhat enlarged or simplified, but there were nearly no requests for additional measures. It will be expedient to stay with the selected dataset for the next years. The libraries must implement the data into their regular procedures for collecting statistics, as well in

the individual library as in the institution that is responsible on the national basis. Comparison over time and with other countries would be impeded by rapid changes in the dataset.

The project partners for the new statistics were unanimous in restricting the questionnaire to public and academic libraries. Even in case of an effective implementation of the new statistics in all countries, it would be too optimistic to expect that the same or similar data could be collected for the large communities of special and school libraries. But a special survey for national libraries might easily be added.

Library statistics will never cover all libraries in all countries. As many projects have showed, there will always be a need for filling gaps, for grossing the data up in a reasonable way. But based on a uniform questionnaire, the results will yet further comparison and help to show trends in libraries' role and impact over time.

## GLOBAL LIBRARY STATISTICS – WHAT NEXT FOR IFLA?

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Executive Secretary, Oxford University Library Services

We have been encouraged by the progress made so far in re-invigorating the approach to the collection of library statistics at the global level. The papers presented at this conference have shown what is possible, and have highlighted a variety of initiatives and approaches. So what should the next steps be in developing global library statistics?

Nobody collects statistics just because they like numbers. We collect library statistics for a purpose. One obvious purpose is to attract resources to the libraries, and we do this by trying to demonstrate that libraries are a valuable element in society. Collecting data does not in itself demonstrate value. The same statistic – for example number of visits per 1,000 inhabitants – can be seen as ‘good’ or ‘bad’ depending upon who is assessing the figure.

There is a syllogistic chain which lets us attach value to library statistics, derived from axiomatic first principles:

1. Axiom: Being able to do things is good (value statement)
2. Axiom: The more we know, the more we can do (factual statement)
3. Conclusion: THEREFORE Acquiring knowledge is good (value statement, from 1 and 2)
4. Axiom: Dissemination increases the acquisition of knowledge by a greater number of people (factual statement)
5. Conclusion: THEREFORE Dissemination of knowledge is good (value statement, from 3 and 4)
6. Axiom: Libraries help to disseminate knowledge (factual statement)
7. Conclusion: THEREFORE Libraries are good (value statement, from 5 and 6)

(I do not intend at this stage to prove here all of the statements presented here as axiomatic! But provided they are all true, then all the value judgements derive from the first axiom. And it is the particular job of library statistics to provide the evidence for statement 6.

One of the conclusions we can draw from this first trial of the statistics is that it is obvious that disparities in size between countries make it difficult to draw meaningful comparisons in every case. Comparing the library statistics from the small island state of Monserrat with those from Mexico does not tell us very much. More importantly, it does not give the policy makers in those countries any information which they can use to assess the contribution libraries make, or could make if given the resources to do so.

Another conclusion is that the use of multiple channels of communication helps. National agencies, professional and research bodies, and international partners can

each use their own strengths to support different aspects of the collection and collation of statistics.

We can also use a variety of methods in the compilation of data, from desk research at one end of the spectrum, through direct questionnaires (as in the present trial), to field research. However, the most productive approach will surely be to build capacity in each country so that there are people available who know both how to collect statistics and why, and how, they can be used to put libraries on the agenda.

Libraries will only be visible on the political agenda if the data we collect is placed in its general cultural framework.. As I suggested above, the value of libraries derives from our perception that they contribute to the general cultural good. To that end, we should seek to embed the collection of library statistics within the framework of the evaluation and promotion of culture. The draft *UNESCO Framework for Cultural Statistics* (2009) seeks to place all the elements of culture within a unifying structure which embraces the creation, production, dissemination, reception and consumption of cultural wealth. Libraries have their place within this framework.. At the same time preliminary discussions are taking place between the International Publishers' Association, the International Booksellers' Federation, UNESCO and IFLA about the possibilities for international agreement on a range of statistics related to the book, being described as a 'Pisa study for book culture', and attempting to characterise the vitality of book production, distribution and dissemination. A separate European initiative seeks to harmonise book and library statistics.

In the wider cultural sphere we have heard in this conference about the LAMP initiative to measure information literacy and the role which libraries can play in that.

I see IFLA's role as being to participate in and contribute to all these initiatives because they help to place libraries on the agenda. To do that we must have good data with clear relevance to demonstrating value. Good data in turn requires not just the ability to ask the right questions, but the ability of people to answer them. Phase II of our project must therefore be a twin-pronged approach by IFLA, working with UNESCO Institute for Statistics and other partners, to build local capacity and to engage in advocacy at the highest level to promote the value of libraries.



# Appendices

## APPENDICES

### APPENDIX 1: GLOBAL LIBRARY STATISTICS (AS AMENDED FOLLOWING THE TRIAL)

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

<b>1</b>	<b>Libraries: Access and facilities</b>	6 questions
1.1	Number of libraries	
1.2	Number of user workplaces (seats)	
1.3	Weekly opening hours <ul style="list-style-type: none"><li>• less than or equal to 20</li><li>• 20 to 40</li><li>• 40 to 60</li><li>• over 60</li></ul>	
1.4	Electronic services by type (percentage of libraries offering these services) <ul style="list-style-type: none"><li>• Internet access for users</li><li>• online catalogues</li><li>• websites</li></ul>	
<b>2</b>	<b>Collection</b>	4 questions
2.1	Number of volumes	
2.2	Number of electronic collections by type <ul style="list-style-type: none"><li>• electronic serials (subscriptions)</li><li>• ebooks (titles)</li><li>• databases (purchased or licensed)</li></ul>	
<b>3</b>	<b>Library activities and events</b>	2 questions
3.1	Number of events	
3.2	Total annual attendance at user training sessions	
<b>4</b>	<b>Library use and users</b>	
4.1	Total registered users	
4.2	Loans and usage	

	<ul style="list-style-type: none"> <li>• number of loans (without renewals and ILL)</li> <li>• number of downloads from the e-collection</li> <li>• number of visits</li> </ul>	
<b>5</b>	<b>Library staff</b>	3 questions
5.1	Number of employees (headcounts) <ul style="list-style-type: none"> <li>• of which female</li> </ul>	
5.2	Hours of training per staff member	
<b>6</b>	<b>Expenditure</b>	4 questions
6.1	Expenditure <ul style="list-style-type: none"> <li>• total operating expenditure</li> <li>• staff costs</li> <li>• expenditure on literature and information</li> <li>• other costs</li> </ul>	
		<b>23 questions</b>

**Supplementary:**

- Names of the ten public libraries which had the highest number of volumes for the reference year, together with the number of registered users of each.
- Names of the ten higher education institution libraries which had the highest number of volumes for the reference year, together with the number of students of the host institution of each.

## APPENDIX 2: INDICATORS FOR GLOBAL LIBRARY STATISTICS

Prepared by Cynthia Lisée (EBSI), Georges Boade, Simon Ellis (UIS); Michael Heaney, Pierre Meunier and Roswitha Poll (IFLA) on the basis of an initial list drawn up by Cynthia Lisée.

The indicators are calculated with data from the Global Statistics dataset and the following socio-demographic data for each 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, is intended to facilitate the identification of correlations between library use and literacy. Twenty-three elements are identified as core statistics.

**Core statistics** are identified in **bold** typeface.

### **1. Average number of public libraries per 1000 inhabitants**

2. Average number of public libraries per 1000 literate inhabitants.
3. Average number of higher education institution libraries per 1000 students of higher education
4. Average number of workplaces in public libraries
5. Average number of workplaces in higher education institution libraries
6. Average number of higher education institution libraries workplaces per 1000 students of higher education
7. Average number of public libraries workplaces per 1000 inhabitants
8. Percentage of public libraries that have weekly opening hours over 40
9. Percentage of public libraries that have weekly opening hours less or equal to 20

### **10. Weighted average opening hours for public libraries**

11. Percentage of higher education institution libraries that have weekly opening hours over 40
12. Percentage of higher education institution libraries that have weekly opening hours less or equal to 20
13. Average opening hours for higher education institution libraries
14. Number of public libraries that provide internet access for users per 1000 inhabitants

15. Number of public libraries that provide internet access for users per 1000 literate inhabitants

**16. Percentage of public libraries offering an internet access for users**

17. Percentage of public libraries offering an online catalogue

**18. Percentage of public libraries offering websites**

19. Percentage of higher education institution libraries offering an internet access for users

20. Percentage of higher education institution libraries offering an online catalogue

21. Percentage of higher education institution libraries offering websites

22. Average number of volumes in public libraries

23. Average number of volumes in higher education institution libraries

**24. Average number of volumes in higher education institution library per 1000 students of higher education**

**25. Average number of volumes in public libraries per 1000 inhabitants**

**26. Average number of volumes in public libraries per 1000 literate inhabitants**

27. Average number of electronic serials (subscriptions) in public libraries

28. Average number of eBooks (titles) in public libraries

29. Average number of databases (purchased or licensed) in public libraries

30. Average number of electronic serials (subscriptions) in higher education institution libraries

31. Average number of eBooks (titles) in higher education institution libraries

32. Average number of (purchased or licensed) in higher education institution libraries

33. Number of events in public libraries per 1000 inhabitants

34. Average number of attendances in public libraries training sessions

35. Number of events in higher education institution libraries per 1000 students

36. Average number of attendances in higher education institution libraries training sessions

37. Number of attendances at training sessions in public libraries per 1000 inhabitants

38. Number of attendances at training sessions in higher education institution libraries per 1000 students (or per student: cross-check with data)

**39. Number of registered users per 1000 inhabitants in public libraries**

**40. Number of registered users per 1000 literate inhabitants in public libraries**

41. Number of registered users in higher education institution libraries per student of higher education

42. Number of items in collection per registered user in public libraries

43. Number of printed volumes per registered user in public libraries

44. Number of items in collection per registered user in higher education institution libraries

45. Number of printed volumes per registered user in higher education institution libraries

**46. Average number of loans per 1000 inhabitants in public libraries**

**47. Average number of loans per 1000 literate inhabitants in public libraries**

**48. Average number of loans per student (higher education) in higher education institution libraries**

49. Average number of loans per registered user in public libraries

50. Average number of loans per registered user in higher education institution libraries

51. Average number of content units downloaded per registered user in public library

52. Average number of content units downloaded per registered user in higher education institution library

**53. Number of visits in public libraries per 1000 inhabitants**

**54. Number of visits in public libraries per 1000 literate inhabitants**

**55. Number of visits in higher education institution libraries per students of higher education**

**56. Average number of employees in public libraries**

**57. Average number of employees in higher education institution libraries**

**58. Ratio of female to male employees in public libraries**

**59. Ratio of female to male employees in higher education institutions libraries**

- 60. Staff per 1000 inhabitants in public libraries
  - 61. Staff per 1000 students in higher education institution libraries
  - 62. Percentage of literature and information expenditure in public libraries out of total operating expenditure
  - 63. Percentage of literature and information expenditure in higher education institution libraries out of total operating expenditure
  - 64. Average total operating expenditure per public library
  - 65. Average total operating expenditure per higher education institution library
  - 66. Percentage of staff costs in public libraries out of total operating expenditure
  - 67. Percentage of staff costs in higher education institution libraries out of total operating expenditure
  - 68. Ratio of expenditure on literature and information to staff costs in public libraries
  - 69. Ratio of expenditure on literature and information to staff costs in higher education institution libraries
  - 70. Cost per visit in public libraries
  - 71. Cost per visit in higher education institution libraries
  - 72. Cost per registered in public libraries
  - 73. Cost per registered user in higher education institution libraries
- 74. Expenditure on literature and information per capita in public libraries**
- 75. Expenditure on literature and information per literate inhabitants in public libraries
- 76. Expenditure on literature and information per student of higher education in higher education institution libraries**

**Topten libraries**

- Number of volumes for the first three public libraries/ Number of volumes in printed collections in public libraries
- Number of registered users for the first three public libraries/ Total registered users in public libraries
- Number of volumes for the first three higher education institution libraries/ Number of volumes in printed collections in higher education institution libraries

Number of registered users for the first three education institution librariesotal registered users in higher education institution libraries